I ’ R
L A ’
T C
B T

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C ℓ

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Christopher Thornberg, P , B E L A , CA, USA

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F

T -

M K

D , A D B I

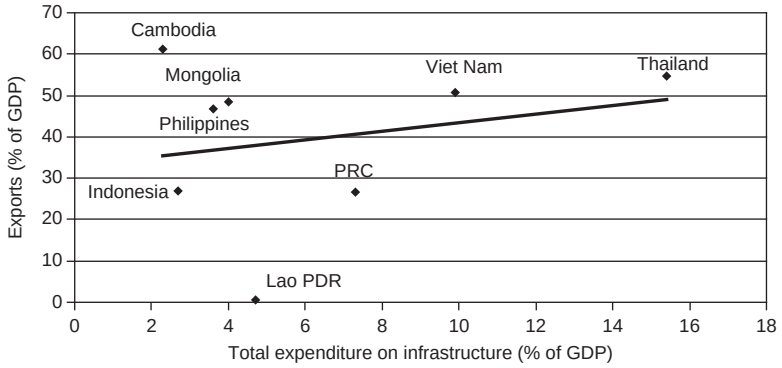
A\ \ Œ

ADB	A D Œ B
ADBI	A D Œ B I
AFTA	ASEAN F T A
ASEAN	A Œ Œ Œ S Œ A N Œ
BAF	\ Œ
CES	Œ Œ Œ \ Œ
. . .	Œ , ,
DWT	Œ
EDI	Œ
FAF	Œ
FDI	Œ
.Œ\ .	Œ \ Œ
FTZ	Œ
GATT	G A Œ T T
GSP	G S Œ P
ICT	Œ Œ Œ Œ ŒŒ
IPC	I Œ P Œ C Œ
OLS	Œ
PRC	P Œ ' R \ Œ C
PRD	P R D
PSO	\ Œ Œ\ Œ
RTG	\ \ -
SAARC	S Œ A A Œ Œ Œ R Œ C ŒŒ Œ
SAFTA	S Œ A F T A
SEZ	Œ Œ Œ
TEU	- ŒŒ
THC	
TRT	- Œ
WTO	W Œ T O Œ
YAS	Œ

1. I ’ A ’

Douglas H. Brooks

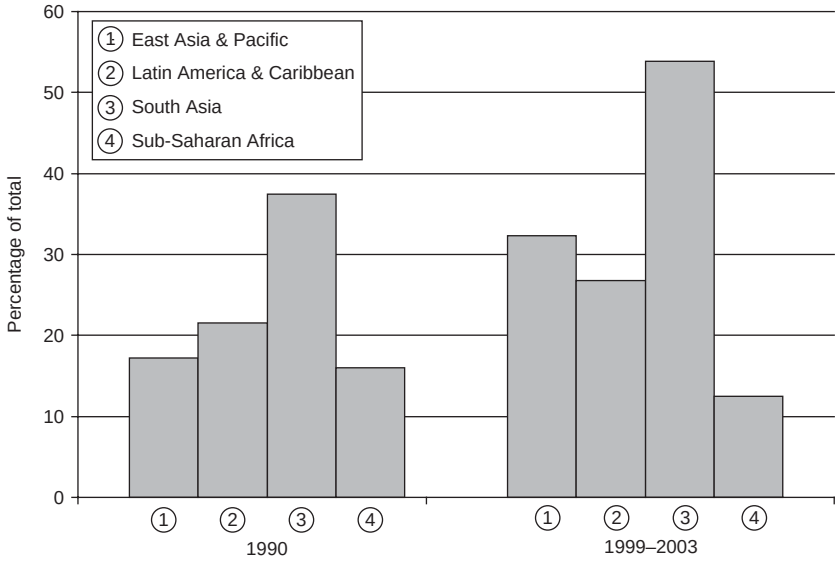
I . O , . T . I , fi ’ . I A . I ff . A fi - , FDI ( ) fl - , -A . F - fi T ff, - G A T ff



Sources: W B , *World Development Indicators 2007*; I M F , *Direction of Trade Statistics 2007*.

Figure 1.2 Exports and total expenditure on infrastructure in 2003 (per cent of GDP)

O , . A . F , ff ff ( ) ff U , . T fi - . A ( ) . A , fi , . B - fi fi , A , ff ,



Source: W B , *World Development Indicators 2007.*

Figure 1.3 Paved roads

TRENDS IN ASIA'S INFRASTRUCTURE AND TRADE COSTS

O , A (F 1.3 T 1.1). T . J fi fl , . U - , , W A , - , . A , ff . F , - *vis-à-vis* , .

Table 1.1 Intraregional comparisons

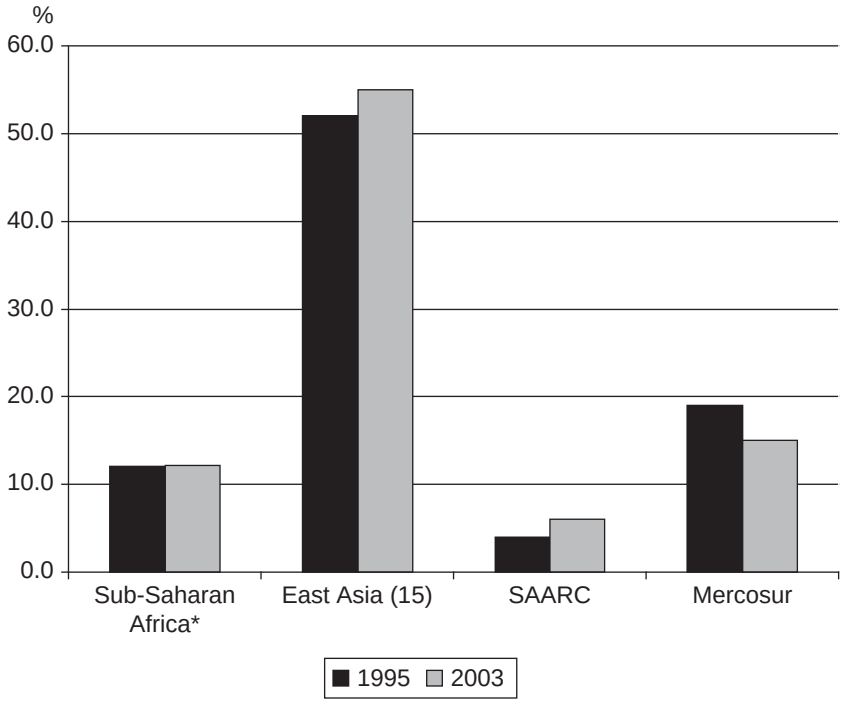
	P	A	E A	S A	L A C
M (GDP)	2005	57.8	74.6	31.2	44.2
G (GDP)	2004	18.4	33.8	22.9	19.5
G (GDP)	2004	17.9	37.9	20.1	23.8
C FDI (US)	1990 2005	125.0	1340.0	65.0	725.0
I	2003	12.2	55.0	6.0	15.0
I E (W)	2003	513.0	1184.3	393.9	1614.5
F (1000)	2004	90.6	431.7	75.3	496.0
I (1000)	2005	29.0	88.6	49.0	156.1
E	2003	12.0	7.3	26.4	16.1
P R ( )	1999	12.5	32.3	53.9	26.8

S :

B fl (, . ., L V 2001; C ., 2004). T , N P (2004) -

1. *Direct monetary outlays* ,
2. *Timeliness*, fl
3. *Risk* .

4. *Lack of access*



Notes: 1998. SAARC: S A A R C ; M :
S C M .

Sources: W B A D 2005; A D B , *Regional Cooperation and Integration Strategy*, 2006.

Figure 1.4 Intraregional trade (per cent of total exports)

- J H , A A C T fi
fi C 3 fi -
A W P (M)
, M
1997 2005. O
, , , , ,

Table 1.2 Border trade costs

	S -S A	E A P	S A	L A C
D ( )	8.2	6.9	8.1	7.3
T ( )	40.0	23.9	34.4	22.2
C (US)	1561.0	885.0	1236.0	1068.0
D ( )	12.2	9.3	12.5	9.5
T ( )	51.5	25.9	41.5	27.9
C (US)	1947.0	1037.0	1495.0	1226.0

Source: W B , *Doing Business 2007*.

2 1 , . I ff . N , ffi ; fl fl . P fi , , ff fl / G I (,), - ff fl fi , , I ff fi T , , - T ff . A P D C 4, 2005 I - . A , C A . A (-

.)

T

O

A ,

fi

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- .

. F 2000 2005,

, 10 (*ad valorem*

INFRASTRUCTURE'S ROLE IN TRADE PATTERNS

. M , ff - . I ff , T - fi fi (Y G , 2007). M . S -1980, M FDI- , - FDI ’ - A T S Y , E D L W H C 6, fi ’ M , , - - I , , , . T M - FDI FDI’, , , , fi . T FDI - T FDI, A , , , fl , ,

A J (2008) fi , ff , ff

N , H.K. R. P (2004), I ', W T O S ff W P ERSD-2004-04.
Y , S. S.S. G (2007), I ff - ', *Review of International Economics*, **15**(2), 223 42.

2. T A : [illegible]

David Hummels

W A T 2.2
2005 (A , N A , E ,
O) .
A .
I K R .
F , A .
T 2.2 A .
. F , I A .
60.4 1995 65.2 2005,

Table 2.2 Geographic orientation of trade, 2005

	E					I				
	A	NA	E	O	1995 2005	A	NA	E	O	1995 2005
					A					A
C	44.6	23.0	21.7	10.7	□15.0	62.2	8.5	14.6	14.7	4.8
I	65.2	12.1	12.8	9.9	4.8	62.0	7.9	12.2	17.9	12.3
I	31.6	17.9	24.3	26.2	0.6	34.0	9.7	33.9	22.4	10.1
K R	31.5	3.4	35.0	30.1	□23.6	37.3	7.4	50.0	5.2	□11.8
M	58.0	20.4	12.4	9.2	1.9	65.6	13.4	13.2	7.7	6.7
P	61.1	18.7	17.2	3.0	18.3	60.7	18.1	9.5	11.7	9.4
T	56.7	16.4	14.6	12.3	3.8	60.9	7.7	11.9	19.5	3.4

Table 2.3 Export growth to China

	E , 2005	A	,
	C	W	W C
I	7.8	12.2	4.7	4.3
I	6.6	32.5	10.4	9.7
K R	4.1	10.9	2.7	4.1
M	6.6	14.5	4.7	4.2
P	9.9	31.6	6.0	5.0
T	8.4	16.3	4.8	4.2
H K	44.7	6.6	3.4	1.3
J	13.4	11.3	0.7	0.2
K	21.8	18.7	6.4	4.6
S	8.8	19.7	4.6	3.8
T ,C	21.7	64.9	3.4	0.4

C ff , H K ’, T ,C ’, 1.3 0.4 , J ’, . T P , - A / . A C ’, ff ff A C C fi C .

THE WEIGHT VALUE RATIO OF TRADE

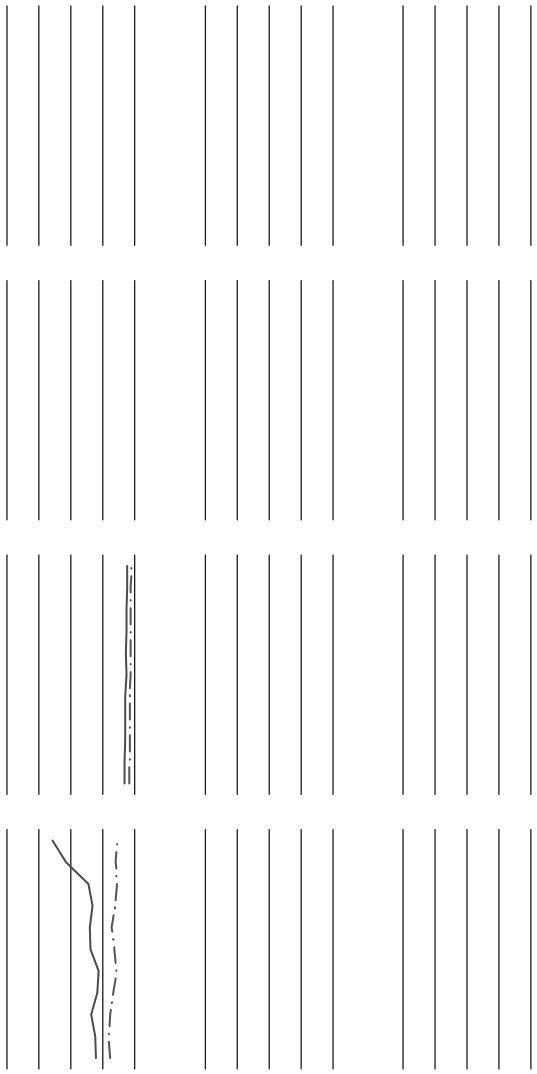
T TEU (-) L A H K . I *ad valorem* , T , *ad valorem* TEU , .

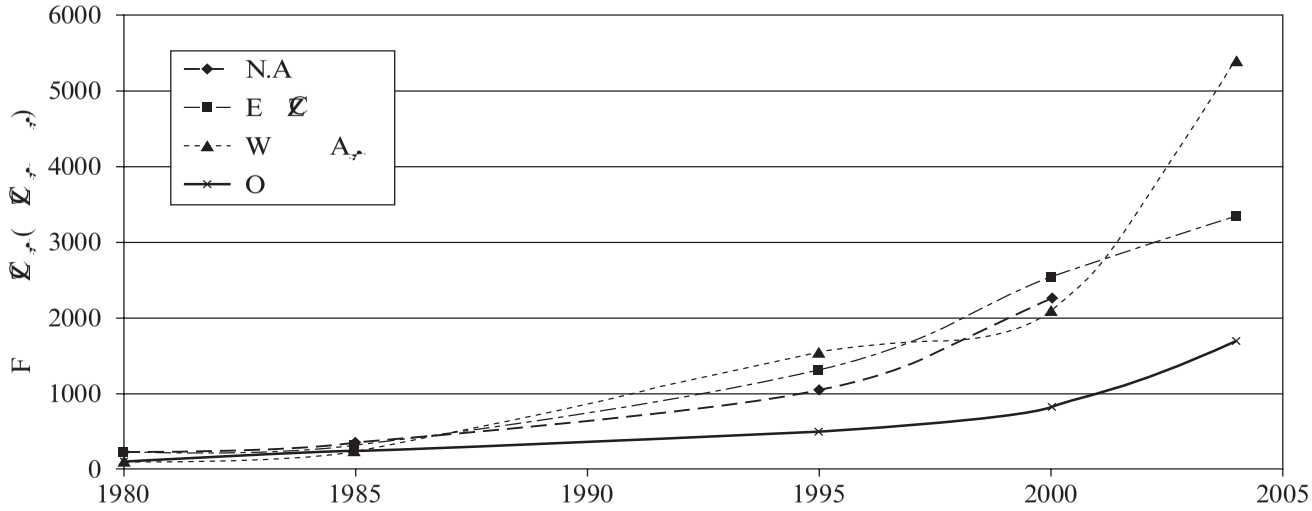
T 1 p, . N , p, I -
f , -

(2.1)

I , p ( ),
p

c





	R				
	N. A	E	W	O	D
2004	. .	3343	5386	1689	2490
2000	2259	2530	2104	825	2402
1995	1030	1290	1545	501	1404
1985	346	305	232	242	. .
1980	190	216	114	96	. .
A	13.2	12.1	17.4	12.7	6.6

Figure 2.2 Air cargo in Asian trade (thousand freight tons)

[illegible]

T 2.4 -
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- USA, -
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T 2.4.

NEW FLOWS AND LARGE/SMALL FLOWS

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6- HS) *j* *c* *t*,
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50.[8] E *c*
. (N *N*
. H , 6-

$$\frac{X^c_{t\square 1}}{X^c_t}\square \quad \frac{N^c_{jkt\square 1}}{N^c_{jkt}}\square \quad \frac{\overline{X}^c_{jkt\square 1}}{\overline{X}^c_{jkt}}.$$

2.1, 1995 2005 (674/161) − 1.43. 1.43, 0.80 0.63 2.5 90

Table 2.5 Decomposing trade growth, 1995…2005

	Log change in export				
	Value	Number of shipments	Shipment value		
			Mean	Median	90th pctile
China	1.43	0.80	0.63	0.09	0.38
Indonesia	0.46	0.65	0.19	0.91	0.47
India	0.99	0.80	0.19	0.32	0.02
Kyrgyz Republic	0.26	0.61	0.35	1.84	1.25
Malaysia	0.46	0.42	0.03	0.12	0.04
Philippines	0.53	0.35	0.18	0.65	0.43
Thailand	0.46	0.51	0.04	0.85	0.24
Hong Kong	0.33	0.04	0.29	0.61	0.14
Japan	0.07	0.06	0.13	0.18	0.01
Korea	0.62	0.29	0.33	0.33	0.05
Singapore	0.45	0.10	0.35	0.29	0.07
Taipei,China	0.27	0.10	0.17	0.37	0.12
	Log change in import				
	Value	Number of	Shipment value		
			Mean	Median	90th
	0.46	0.65			

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Table 2.6 Vertical specialization in Asia

	M 2000			P				
	1990	1995	2000	1975	1985	1990	1995	2000
C	966	5 373	13 932	. .	2.2	4.3	7.2	9.5
I	584	1 583	2 873	1.4	1.9	3.0	4.9	6.9
J	5 742	11 451	14 939	3.8	4.1	3.6	4.1	5.1
K	5 710	11 819	19 673	20.6	18.5	16.1	17.6	19.8
M	2 906	11 303	25 606	7.2	12.7	15.1	23.5	37.2
T ,C	7 938	14 420	24 368	. .	15.5	19.7	25.0	26.4
P	990	2 623	7 687	4.3	10.4	15.7	18.8	30.6
S	8 281	19 354	17 811	20.9	36.1	35.8	42.6	35.5
T	2 326	7 690	10 815	3.0	8.2	19.0	24.4	26.5
USA	2 107	6 431	7 438	0.9	1.7	2.1	3.8	4.3

Note: T

Source: U (2007).

A . S T 2.6. C C , . R 9.5 C ' 2000 2.2 1985. T - M , P S , T ,C T , 26 37 . T J , I USA USA . I . J USA -

CONCLUSION

I A . T : ; fl ; . A ,

H , D (2007), T , , , ', *Journal of Economic Perspectives*, **21**(3), 131 54.
H , D. P.J. K , (2005), T , ', *American Economic Review*, **95**(3), 704 23.
H , D V , L , (2005),' T : , ', NBER W , P 11828.
H , D G , S (2007), T , ', , P U .
H , D A S (2004), S , , A , fi , , A A , ', *Journal of Political Economy*, **112**, 1384 402.
H , D , J I, Y K -M (2001), T , , - , , ', *Journal of International Economics*, **54**, 75 96.
H , D , V , L , A S (2007), T ff , , , , ', NBER W P 12914.
I , A T , A, , , *World Air Transport Statistics*, , , S , G , (2006), H , , ', , P U .
U , Y , (2007), T , , E , A, ', JETRO-IDE ,
Y K -M (2003), C , , , ', *Journal of Political Economy*, **111**, 52 102.

3. Trade infrastructure and trade costs: a study of selected Asian ports

Jon Haveman, Adina Ardelean and Christopher Thornberg

1. INTRODUCTION

For many years, research in international trade focused primarily on env ronments without costs to trade. Recently, trade costs have become incre ingly important in explaining the rapid growth of world trade. A growing literature on trade costs has focused on lower taris, declining ocean and a transport costs, and 6(.)-27(e)-174.3(oesear)14searoi1-174.3(oi1ocuse

1970
. A , fi .
N - , ,
D . T . I , -
(E H , 2005). A
(A , 2004; S , 2006).
A - P , , .[3] I , - A B . O
. [4] T -
ffff

. R – ff T -

Table 3.2 Key statistics for Asian ports

P	V P USA ( )		N Y ( )	
China				
S	1 090	91	4 280	1991
	40 986	96	41 779	2005
Y	1	100	16	1991
	45 778	98	28 276	2005
N B	5	94	105	1991
	4 835	98	17 950	2005
	25	91	188	1995
	3 963	97	8 833	2005
India				
J N	30	99	288	1995
	2 622	98	8 077	2005
M	763	72	3 086	1991
	2 300	78	8 374	2005
M	278	65	1 102	1991
	1 060	95	3 247	2005
C	86	79	540	1991
	233	97	1 410	2005
N T	41	96	126	1991
	982	97	2 342	2005
Malaysia				
P	1 051	59	1 666	1991
	1 919	98	3 067	2005
K	601	62	1 286	1991
	1 949	91	3 687	2005
J	52	75	86	1991
	1 401	88	1 217	2005

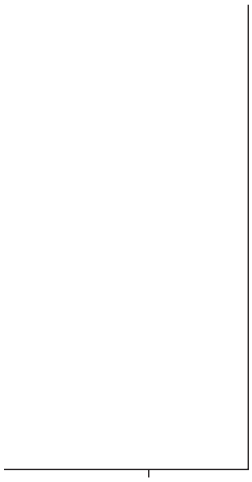
fi A

Estimation of the Asian Port Costs (First Stage)

T fi B W (2006). I , [8] T US

Asian Port Costs and Infrastructure Developments (Second Stage)

4. TRENDS IN ASIAN PORT COSTS



SITC 1
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(3.2), C M T 3.3 - 1- SITC fi T fi ff A S 3, fi ff. T A A ff, US T W C M ff, W C C *China Statistical Yearbook, 1991–2005*, M *World Development Indicators*, 1991 2003. S M 2004 2005, 1991 2003. T B fi . O - 2 1 , . I ffi , C - , fi ffi . T , fi ff S . T I fi fi - - .[18] T 3.4 3.5 fi - ff - . T ff - .

6. THE EFFICACY OF INDIAN PORT INVESTMENTS

[19]
[20]

Table 3.5 The determinants of relative Chinese and Malaysian port costs (pooled across 1-digit SITC commodities with non-containerized trade)

	(1)	(2)	(3)
R (1)	0.58	0.70	0.65
	(0.02)	(0.03)	(0.03)
R (2)		□0.24	□0.11
		(0.03)	(0.04)
R (3)			□0.20
			(0.03)
P	□0.03	□0.04	□0.04
	(0.01)	(0.01)	(0.02)
N	□0.01	□0.01	□0.01
	(0.01)	(0.01)	(0.01)
N	0.01	0.02	0.01
	(0.01)	(0.01)	(0.01)
C	□0.04	□0.09	□0.07
	(0.06)	(0.06)	(0.06)
E	0.02	0.04	0.04
	(0.01)	(0.01)	(0.02)
W	0.00007	0.00008	0.00007
	(0.00001)	(0.00002)	(0.00002)
A . R-	0.43	0.45	0.48
N	1 112	1 046	979

Note: A T 3.3.

F , . I 1990, . I 1995 J N , . T ffi 6.9 1995 44.8 2006 T . T 3.6 fi T fi T fi

. T W fi ff
A T 3.6, F
1
0.03 . T 33 1
. T -
, -

Table 3.6 The determinants of relative Indian port costs (pooled across all 1-digit SITC commodities)

	(1)	(2)	(3)
R	0.7743	0.9000	0.9027
	(0.0072)	(0.0127)	(0.0131)
R		□0.1541	□0.1268
		(0.0128)	(0.0170)
R			□0.0368
			(0.0125)
T	□0.0003	□0.0002	□0.0002
	(0.0001)	(0.0001)	(0.0001)
E	□0.0045	□0.0043	□0.0048
	(0.0006)	(0.0006)	(0.0006)
W	0.0043	0.0040	0.0031
	(0.0008)	(0.0008)	(0.0008)
A . R-	0.77	0.76	0.76
N	7447	7015	6538
	D		
	(1)	(2)	(3)
R	0.7745	0.9022	0.9039
	(0.0072)	(0.0127)	(0.0130)
R		□0.1552	□0.1208
		(0.0129)	(0.0169)
R			0.0449
			(0.0125)
D	□0.0002	□0.0002	□0.0002
	(0.0001)	(0.0001)	(0.0001)
L /	□0.0016	□0.0018	0.0019
	(0.0003)	(0.0003)	(0.0003)
O	0.0013	0.0019	0.0019
	(0.0004)	(0.0004)	(0.0004)
C	□0.0003	□0.0007	0.0006
	(0.0004)	(0.0004)	(0.0004)
E	□0.0059	□0.0060	0.0066
	(0.0006)	(0.0006)	(0.0006)
W	0.0043	0.0039	0.0030
	(0.0008)	(0.0008)	(0.0008)
A . R-	0.77	0.76	0.76
N	7447	7015	6538

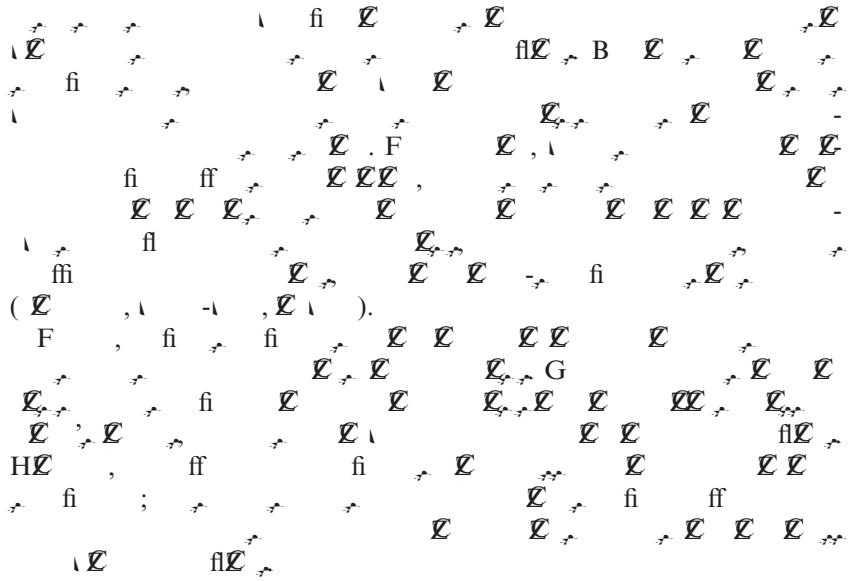
Note: A T 3.3.

Table 3.7 The determinants of relative Indian port costs (pooled across 1-digit SITC commodities with containerized trade)

	(1)	(2)	(3)
R	0.7596	0.8770	0.8879
	(0.0081)	(0.0135)	(0.0138)
R		□0.1461	0.1451
		(0.0136)	(0.0176)
R			0.0175
			(0.0132)
T	□0.0003	□0.0002	0.0002
	(0.0000)	(0.0000)	(0.0000)
E	□0.0023	□0.0022	0.0025
	(0.0005)	(0.0005)	(0.0005)
W	0.0033	0.0030	0.0025
	(0.0007)	(0.0007)	(0.0007)
A . R-	0.78	0.77	0.77
N	6 513	6 147	5 741
	D		
	(1)	(2)	(3)
R	0.7583	0.8801	0.8906
	(0.0080)	(0.0135)	(0.0137)
R		□0.1493	□0.1430
		(0.0136)	(0.0175)
R			□0.0240
			(0.0131)
D	□0.0003	□0.0002	□0.0002
	(0.0001)	(0.0001)	(0.0001)
L /	□0.0021	□0.0024	□0.0025
	(0.0003)	(0.0003)	(0.0003)
O	0.0012	0.0020	0.0021
	(0.0003)	(0.0004)	(0.0004)
C	0.0002	□0.0003	□0.0001
	(0.0004)	(0.0004)	(0.0004)
E	□0.0043	□0.0045	□0.0049
	(0.0006)	(0.0006)	(0.0006)
W	0.0032	0.0029	0.0023
	(0.0007)	(0.0007)	(0.0007)
A . R-	0.78	0.77	0.77
N	6 513	6 147	5 741

Note: A T 3.3.

Table 3.8 The determinants of relative Indian port costs (pooled across 1-digit SITC commodities with non-containerized trade)



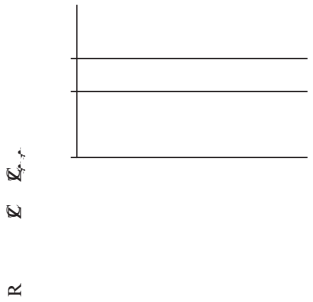
NOTES

1. T US 85 (H ., 2007).
2. B W (2006) 1 0.05 . H (2007) 4.7(9.7 29.)14T 78.507 0 TD0 T 0 T ()T /F1 1 T

14. T fi - 1- SITC

APPENDI 3A1

I



R

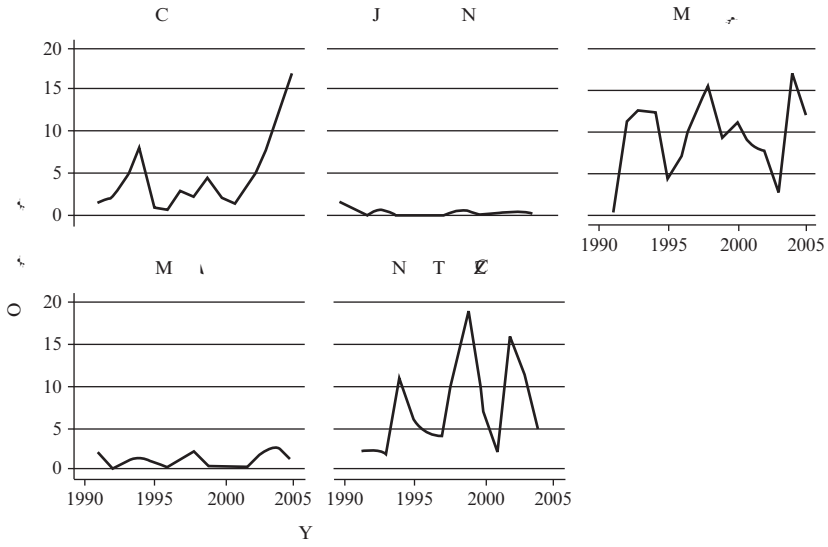
Y

Note: G ﻲ ﻲ . R ﻲ ﻲ

C

Note: G ١ .

Figure 3A2.1 ( )



Note: G .

Figure 3A2.1 ( )

Table 3A3.1 Level of detail in Indian investment data

1. D
C (P O)
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E O J D 220 RM C
C S I
M / VTMS

T 3A3.1.

Other evidence of infrastructure implementation

R M C I I , - P M S - 1.5 2002 2005 (7 10).

Table 3A4.2 The determinants of relative Indian port costs (pooled across 1-digit SITC commodities with containerized trade)

			(1)	(2)	(3)
R	[illegible]	[illegible](1,)	0.7639	0.8743	0.8825
			(0.0080)	(0.0135)	(0.0137)
R	[illegible]	[illegible](2)		□	

Table 3A4.3 The determinants of relative Indian port costs (pooled across 1-digit SITC commodities with non-containerized trade)

			(1)	(2)	(3)
R		(1)	0.6029	0.7411	0.6557
			(0.0263)	(0.0356)	(0.0356)
R		(2)		□0.2381	0.0201
				(0.0376)	(0.0437)
R		(3)			□0.3483

Table 3A4.4 The determinants of relative Chinese and Malaysian port costs (pooled across all 1-digit SITC commodities)

	(1)	(2)	(3)
R	0.75	0.81	0.80
	(0.01)	(0.01)	(0.01)
R		□0.1	□0.03
		(0.01)	(0.01)
R			□0.1
			(0.01)
P	□0.02	□0.02	□0.02
	(0.00)	(0.00)	(0.00)
N	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)
N	□0.01	□0.01	□0.01
	(0.00)	(0.00)	(0.00)
C	0.02	0.01	0.01
	(0.01)	(0.01)	(0.01)
E	0.00	0.01	0.00
	(0.00)	(0.00)	(0.00)
W	□0.00001	□0.00001	□0.00001
	(0.00000)	(0.00000)	(0.00000)
A . R-	0.62	0.61	0.61
N	14 303	13 595	12 819

Notes: A T 3A4.1.

Table 3A4.5 The determinants of relative Chinese and Malaysian port costs (pooled across all 1-digit SITC commodities with containerized trade)

	(1)	(2)	(3)
R	0.79	0.83	0.81
	(0.01)	(0.01)	(0.01)
R		□0.05	0.02
		(0.01)	(0.01)
R			□0.10
			(0.01)
P	□0.01	□0.01	□0.01
	(0.00)	(0.00)	(0.00)
N	□0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)
N	□0.02	□0.02	□0.02
	(0.00)	(0.00)	(0.00)
C	0.03	0.03	0.03
	(0.01)	(0.01)	(0.01)
E	0.01	0.01	0.01
	(0.00)	(0.00)	(0.01)
W	□0.00002	□0.00001	□0.00002
	(0.00000)	(0.00000)	(0.00000)
A . R-	0.64	0.63	0.62
N	9 304	8 847	8 345

Notes: A T 3A4.1.

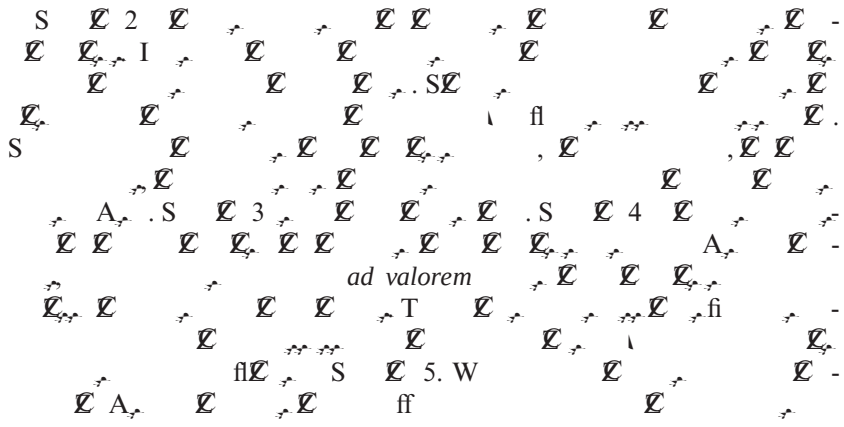
4. E

A

Prabir De

1. INTRODUCTION

T fi . A . A ff - . A A W T 170 . - 21 44 55 ’ (A W , 2004, . 692). W A fi O , A , A ’ - . T . B . H A W ff D fl A fi - W A T A W A ’ - . T .



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ff[6] T
ff C
,
.

Gains from Reduction in Transportation Costs

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P_w T_2. T (*b c*)
c ( ),
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[7] N

1989), D (1998), D ff (1998), L V (2001), F
. (2002), C . (2004), R V (2004), H
(1999, 2001), H , S (1954) ff T -
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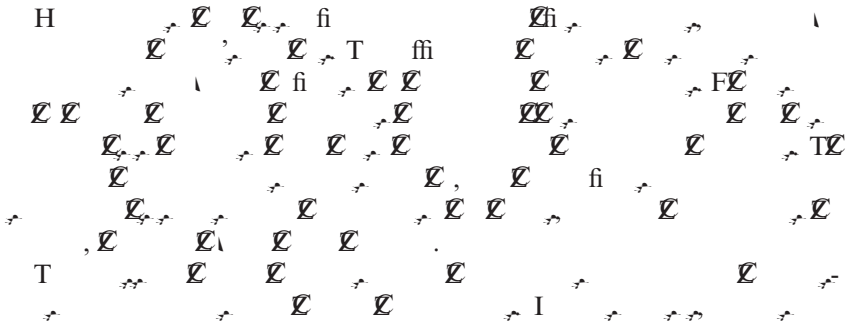


A , D (2005, 2006) ffi

Table 4.1 Ocean freight rates in selected Asian countries in 2005

O	D							
	C	I	I	J	M	T	K	A
C		2289.22	874.92	1101.02	762.35	705.52	819.82	1092.14
		(25.58)	(10.82)	(4.35)	(5.82)	(8.75)	(1.00)	
I	1503.16		1423.47	1798.45	1324.26	1240.70	1392.35	1447.07
	(10.34)		(11.96)	(10.20)	(10.92)	(11.78)	(9.93)	
I	840.95	2545.64		1376.53	954.26	827.89	865.00	1235.05
	(4.77)	(22.06)		(10.99)	(8.12)	(8.05)	(4.34)	
J	501.51	2067.96	835.44		706.20	641.04	608.67	893.47
	(2.26)	(13.61)	(4.91)		(3.92)	(10.48)	(3.37)	
M	572.46	1877.37	820.55	1786.42		556.23	695.01	1051.34
	(9.29)	(30.71)	(4.46)	(33.26)		(8.46)	(13.89)	
T	829.48	1881.34	1142.83	1050.22	889.80		874.06	1111.29
	(7.18)	(17.22)	(13.08)	(10.94)	(5.03)		(11.20)	
K	587.65	2310.44	884.32	876.38	888.71	671.39		1036.48
	(10.07)	(19.21)	(11.53)	(0.13)	(8.66)	(7.39)		
A	805.87	2162.00	996.92	1331.50	920.93	773.80	875.82	

Notes:
1. R 2005.
2. R F

Table 4.2 Average ocean freight rates in 2005

O	D	B (US /TEU)	A (US /TEU)	T (US /TEU)	S ( )
C	I	2000.00	289.22	2289.22	12.63
C	I	500.00	374.92	874.92	42.85
C	J	800.00	301.02	1101.02	27.34
C	K	500.00	319.82	819.82	39.01
C	M	600.00	162.367	1 145.2 582.219.01	

١٠ ٤٤ ٠ ١٠

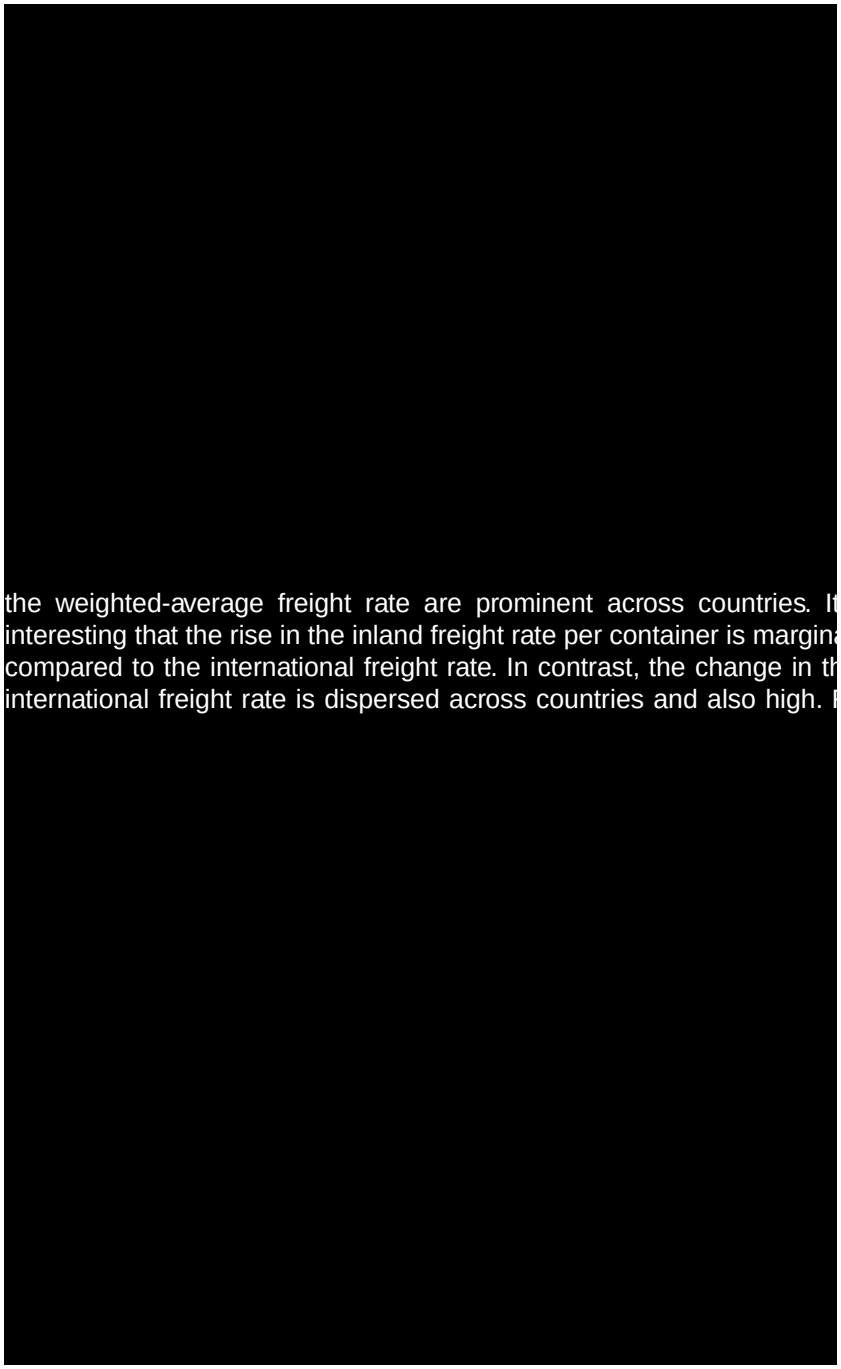
Table 4.3 Components of total ocean freight in Asia in 2005

4. RELATIVE IMPORTANCE OF TRANSPORTATION COSTS IN ASIA

(4.1)

(4.2)

F_i



the weighted-average freight rate are prominent across countries. It
interesting that the rise in the inland freight rate per container is margina
compared to the international freight rate. In contrast, the change in th
international freight rate is dispersed across countries and also high. I

F , THC

Estimated *Ad Valorem* Transportation Costs

I fl , *ad valorem* .[29] T *ad valorem*

Table 4.6 A *transportation costs (trade-weighted) in 2005*

C	C	I	I	J	M	K	T
T	8.50	8.10	11.10	7.20	9.40	11.80	11.90
A	16.90	22.90	22.70	3.10	11.50	6.70	12.10
C	8.30	19.00	12.50	10.50	14.80	10.80	15.30
E	9.20	12.40	13.10	3.70	9.40	6.60	8.60
E	4.50	28.90	9.30	2.00	9.10	8.24	9.90
F	25.10	48.50	14.40	12.00	22.00	17.90	12.70
F	41.80	59.00	27.30	34.60	41.76	40.21	27.62
I	8.70	30.90	18.50	9.20	17.50	12.50	17.20
L	8.10	15.60	9.00	1.10	9.20	2.20	12.10
M	9.80	12.20	12.80	3.10	11.60	8.30	11.60
M	14.20	16.00	14.60	9.50	16.10	12.00	15.50
Offi	6.20	20.80	2.80	1.60	1.80	6.40	8.70
P	9.50	24.20	12.60	9.60	15.60	13.90	12.60
P	8.10	12.30	11.80	7.50	12.70	7.00	11.40
R	8.20	16.80	8.60	7.20	8.50	4.30	4.00
T	8.80	15.60	5.60	1.30	3.30	2.90	3.90
C	16.90	22.80	17.20	10.40	18.40	14.90	15.60

F , M H , F , *ad valorem* F , M . S , I - - Offi , , . T I A

Table 4.7 Estimated weight–value ratio (TEU/US$10 000) in 2005

C	C	I	I	J	M	T
T	417.436	12.086	192.917	1301.104	246.684	148.328	130.887
A	1.957	2.330	1.443	2.330	19.922	11.318	2.266
C	0.815	0.557	1.066	0.693	18.682	0.611	0.882
E	2.216	0.458	7.098	3.202	4.164	4.244	1.848
E	0.092	1.732	9.523	0.508	4.636	0.592	0.195
F	20.728	8.964	0.975	0.349	5.676	0.916	1.957
F	0.049	0.052	0.435	0.143	1.926	0.190	0.156
I	0.365	0.206	0.055	0.142	0.523	0.090	0.072
L	2.217	3.799	13.233	0.541	7.087	1.433	4.656
M	0.031	0.967	0.039	0.081	0.136	0.035	0.046
M	0.118	1.063	0.444	0.207	0.158	0.082	0.112
Offi	0.020	0.010	0.428	0.017	0.039	0.009	0.047
P	0.406	1.419	0.770	1.097	0.261	0.674	0.482

J ’ - fi T , A (J) -fi T I . H S (2004) 10 4 *ad valorem* . S A (C I), T A . W , J . J , , *ad valorem* . F 4.3, ’ - ff 2000 2005. T , , ’ ff . T F 4.3. T 2005, , . T , ff .[32] A , ff, . T ff . T .

5. ASSESSING BARRIERS TO TRADE IN SELECTED ASIAN COUNTRIES

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The Model

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(4.7)

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, □$_{ij}$.
T 2000 2005

Table 4.8 Non-linear least squares estimates of import demand

	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8
T ff ( )	0.003	0.002	0.003	0.004				
	(0.050)	(0.040)	(0.050)	(0.060)				
T (	□0.284				□0.383			
) (*ad valorem*	(□2.450)				(□2.420)			
)								
I			□0.389	□0.252		□0.287		□0.251
(*ad valorem*)			(□2.570)	(□1.370)		(□2.540)		(□1.170)
I (*ad*		□0.282		□0.166			□0.281	□0.165
valorem)		(□2.420)		(□1.002)			(□2.390)	(□1.001)
N	651	651	651	651	652	652	652	652
A R^2	0.326	0.326	0.338	0.327	0.328	0.329	0.328	0.328

Notes:
S 10 .
S 5 .
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6. CONCLUSION

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NOTES

A A D B I (ADBI) C T C A ', T 25 26 J 2007. T D H D B J M , B B , A R , P -C A , Y D , J S - B R . T ADBI . T T .

1. T D (2006 , 2007, 2008 , 2008). I D (2006 , 2007). F , *ad valorem* A S , 2000 2005, 4- HS .
2. S A W (2004) .
3. B WTO (2006 , 2007).
4. A . S H (1999; 2007), L V (2001) A W (2004).
5. F , ( ) , .
6. A W B (2001), 168 216 US ff F S -S A - L A C , A , - ff fi ff .
7. C , , (, B , 1961).
8. S , . ., K (1980), K V (1990).
9. S ' , . T $Q^d \neq Q^s$, (1) $Q^d \equiv Q^s$, 0.
10. T K V (1990) : *i* *j* ( ) . I , . C *i* fi . T ff - . T - .
11. S APEC (2002); OECD (2003).
12. S APEC (2002).
13. S APEC (C , 2001; W B , 2002; W ., 2003). A W B , APEC 10 -APEC US 280 (W B , 2002).
14. S , . ., A J (2008).
15. F , , - .

16. F , D (2006) - 15 A T .
17. F , B . (1999) T fi

29. G , *ad valorem* .
30. S 2000 2005, - 2005 .
31. H , B H (2007).
32. T fi ffi (CV), ff T CV ff 0.69 2000 0.48 2005, 0.25 2000 0.22 2005.
33. T GDP

C , L. (2001), *Assessing Regional Trading Arrangements: Are South–South RTAs More Trade Diverting?*, UNCTAD P I I T C S S N 16, G : UNCTAD.
C , ., D. D A. M (2004), P ffi , ' ', NBER W P 10353.
D D. (1998), T ff , ', *American Economic Review*, **88**(5), 1264 76.
D , P. (2005), Eff ' , A D B (.), *Asian Economic Cooperation and Integration: Progress, Prospects, Challenges*, M : ADB, . 365 88.
D , P. (2006), R N A : ', CES W P N 1809, CES M .
D , P. (2006), T , ' : ' A ', *Journal of Economic Integration*, **21**(4), 708 35.
D , P. (2007), I : A - .', ARTN T W P 27, T I D , UNESCAP, B .
D , P. (2008), T : ff A ', *Journal of Integration and Trade*, **12**(28), 241 66.
D , P. (2008), E A ', D. B J. M ( ), *Infrastructure and Trade in Asia*, C , UK N , MA: E E , . 71 112.
D ff, A. (1998), D : ' ', J. F (.), *Regionalization of the World Economy*, C IL: U C P . 7 32.
D , A. J. S (1977), M ' , ' ', *American Economic Review*, **67**, 297 308.
D , S., C. F C.S. P (2006), T ', W P , W B , W , DC.
F , R.C. (1998), I ' ', *Journal of Economic Perspectives*, **12**(4), 31 50.
F , C., A. M I.C. N (2002), T - : ' , ', *The World Bank Economic Review*, **16**, 451 79.
F , J. M. M (2006), *Institutional Quality, Infrastructure, and the Propensity to Export*, L : CEPR.
F , J., H. M F. T (2005), T ' D D R ', *Economic Policy*, **20**(42), 349 91.
H D. (1999), T ', W P , U C C
H D. (2001). T ', , P U , W L .
H D. (2007), T ' ' , ' ', *Journal of Economic Perspectives*, **21**(3), 131 54.
H D. A. S (2004), S A ' A fi ' A A ', *Journal of Political Economy*, **112**(6), 1384 402.
I M F (2006), *Direction of Trade Statistics Year Book CD ROM 2005*, W , DC: IMF.

K , P. (1980), S ff ',
American Economic Review, **70**, 950 59.
K , P. (1991), I ',
Journal of Political Economy, **99**, 483 99.
K , P. A.J. V (1990), I ',
C. B J. B M ( ),
Unity with Diversity in the European Economy, C : C U P . 56 75.
K , I. (2006), P E A ', D. H (.),

APPENDI

Table 4A.2 Excluded values by country and commodity groups

( ) B

	T			T		
C	263			8 594		
I	1 029			7 558		
I	311			8 699		
J	505			7 852		
M	2 052			8 881		
K	354			7 682		
T	328			8 663		
T	4 842			57 929		

(\ ) B

C			T		T	
T			61		604	
A			92		839	
C			324		9 748	
E			1 007		5 775	
E			20		84	
F			200		2 719	
F			1 066		3 885	
I			165		3 741	
L			26		1 001	
M			723		7 481	
M			296		7 060	
Offi			278		2 488	
P			40		1 766	
P			0		404	
R			88		3 334	
T			456		7 000	
T			4 842		57 929	

Table 4A.3 Pair-wise correlation coefficients

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A . Ȼ
A3 T (A)20( )85(.)-250( ) TJ/64 1 T 8.6674 0 TD

5. P S S , I [1]

Arianto A. Patunru, Nanda Nurridzki and Rivayani

1. INTRODUCTION

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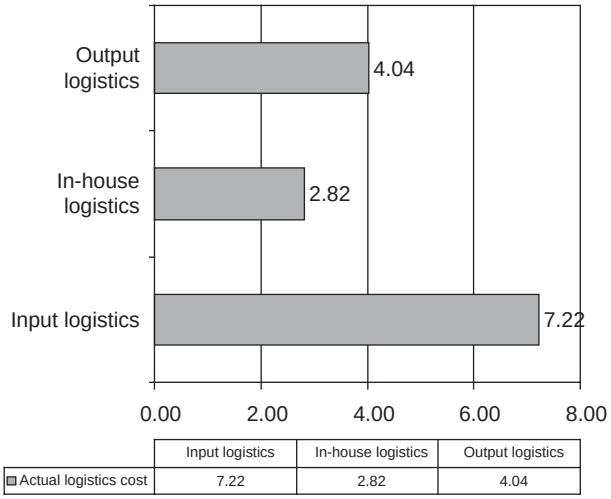
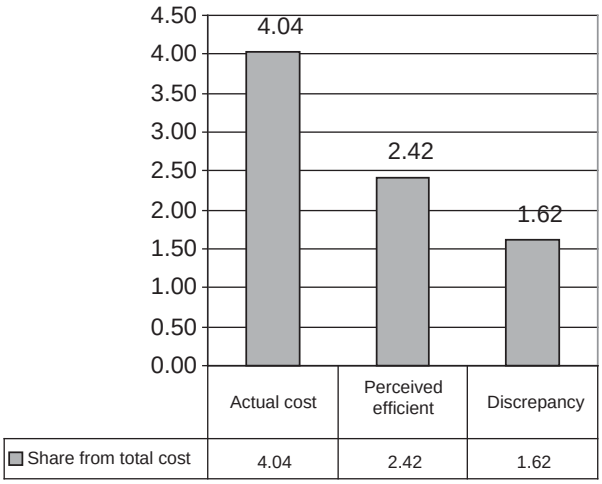


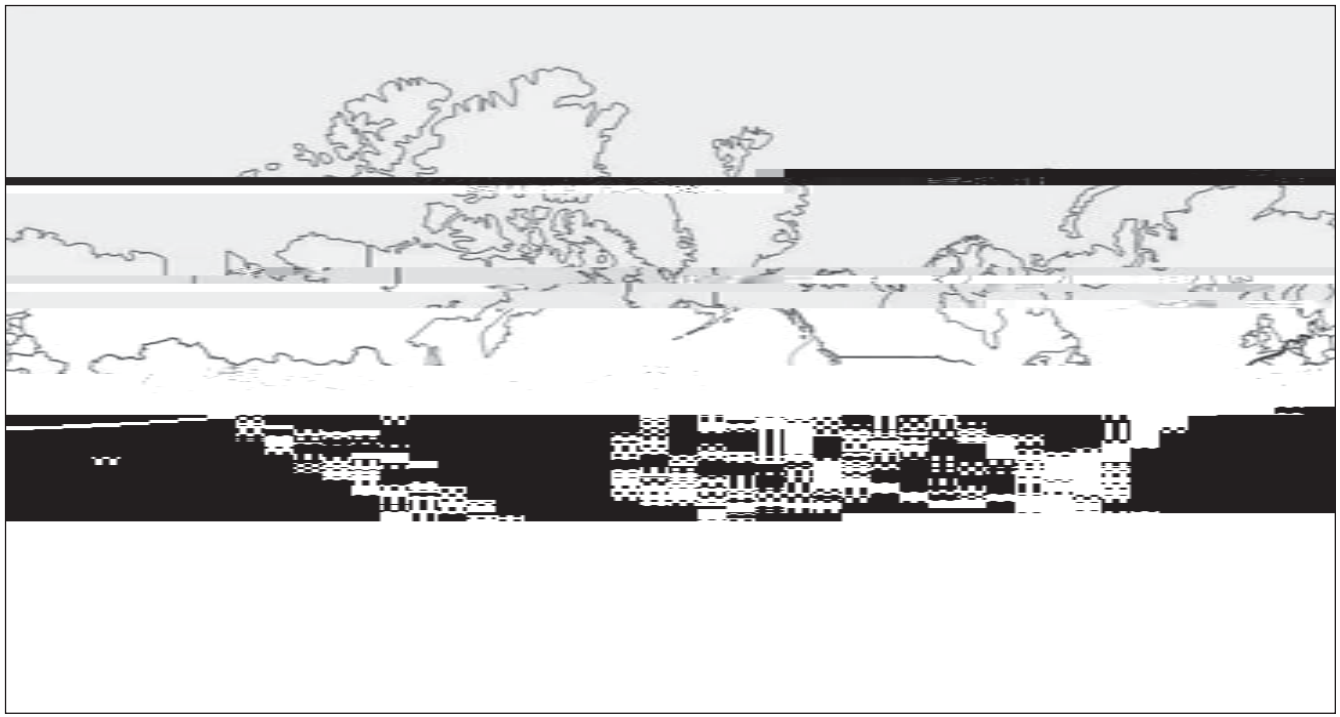
Source: LPEM-FEUI (2005).

Figure 5.1 Comparison among input, in-house and output logistics costs (% of total production cost)



Source: LPEM-FEUI (2005).

Figure 5.2 Output logistics costs (average) from manufacturers to port (% of total production cost)



Source: M ر ﷺ T ر ﷺ ﷺ , R ا ﷺ I ﷺ ر (2005).

Figure 5.3 International shipping lines route

I

Table 5.1 Indonesian port profile based on port management, 2005

P	P	T	I ( )	L
A. Public	**(1) Commercial ports**			
	IPC I (B)	27		
	IPC II (T P)	29		
	IPC III (T P)	32		
	IPC IV (M)	24		
	Subtotal	112	85	27
	(2) Non-commercial ports			
	P ffi (M T)	523	10	513
B. Special	M , , , ,	1412	45	1367
	Total	2047	140	1907

Source: M T , R I (2005).

B P N S , T P P P J , T P P E J , M P S S . T , IPC II III fi I , IPC I . I I . A , IPC , . . L -I I , IPC IPC III fi , B , IPC , IPC . B IPC . T . T , IPC . R B (2002) ff IPC ffi IPC ffi ffi , ffi H ,

IPC
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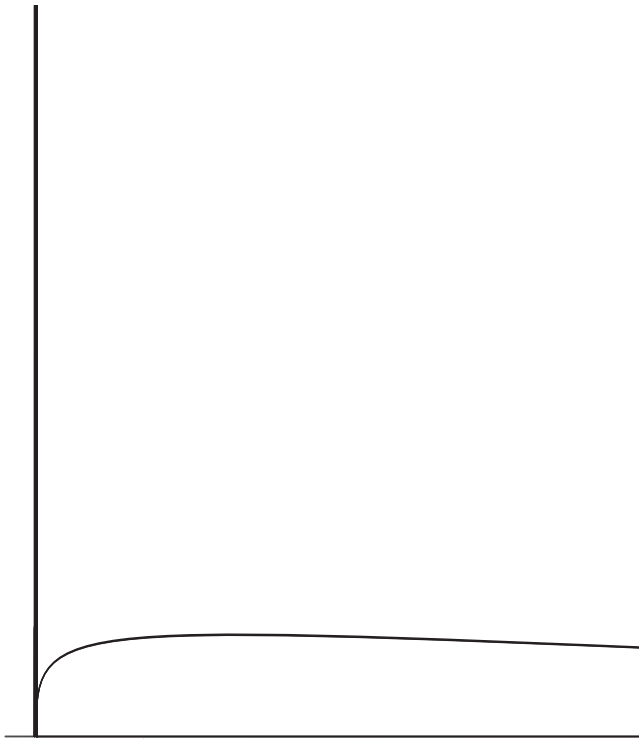

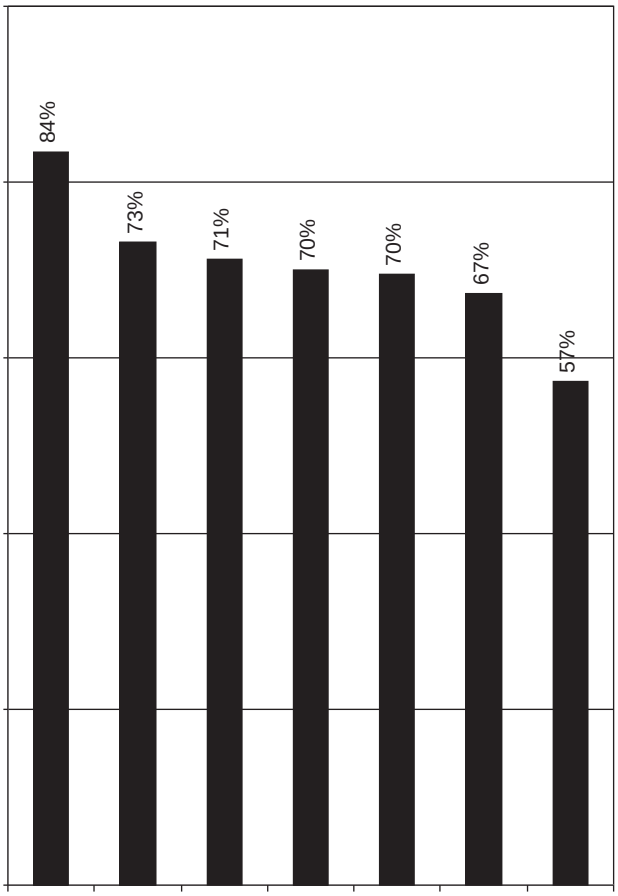
84%
73%
71%
70%
70%
67%
57%

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Tanjung Priok Port

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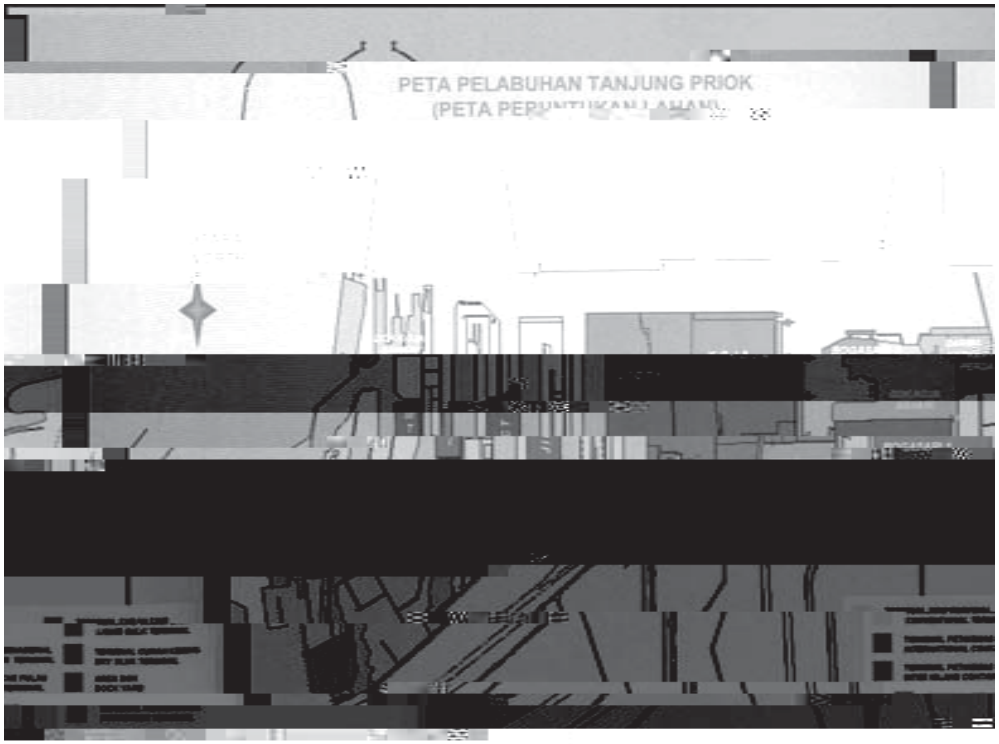
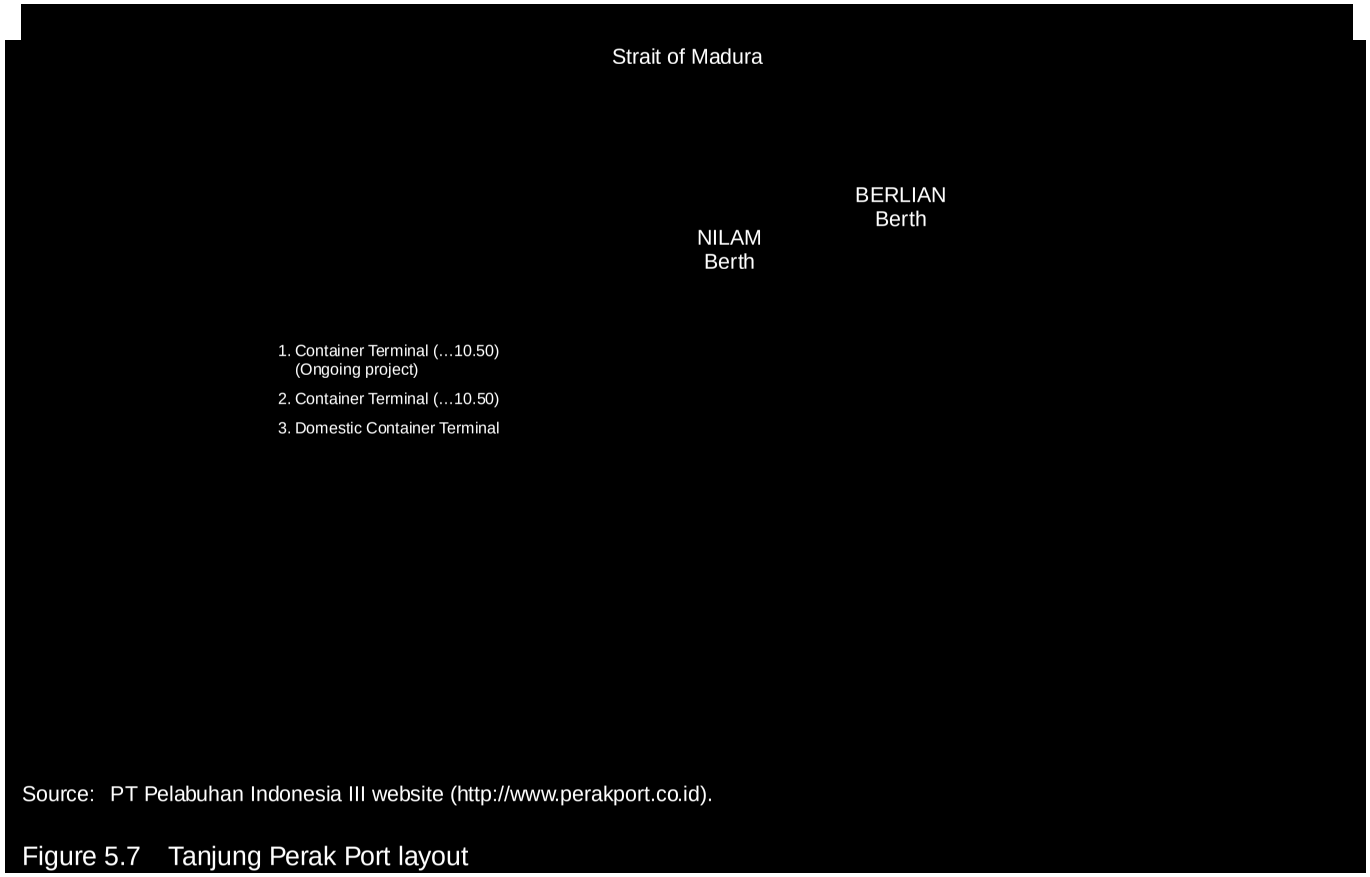


Source: IPC II T P Z B (2006).

Figure 5.6 Tanjung Priok Port layout



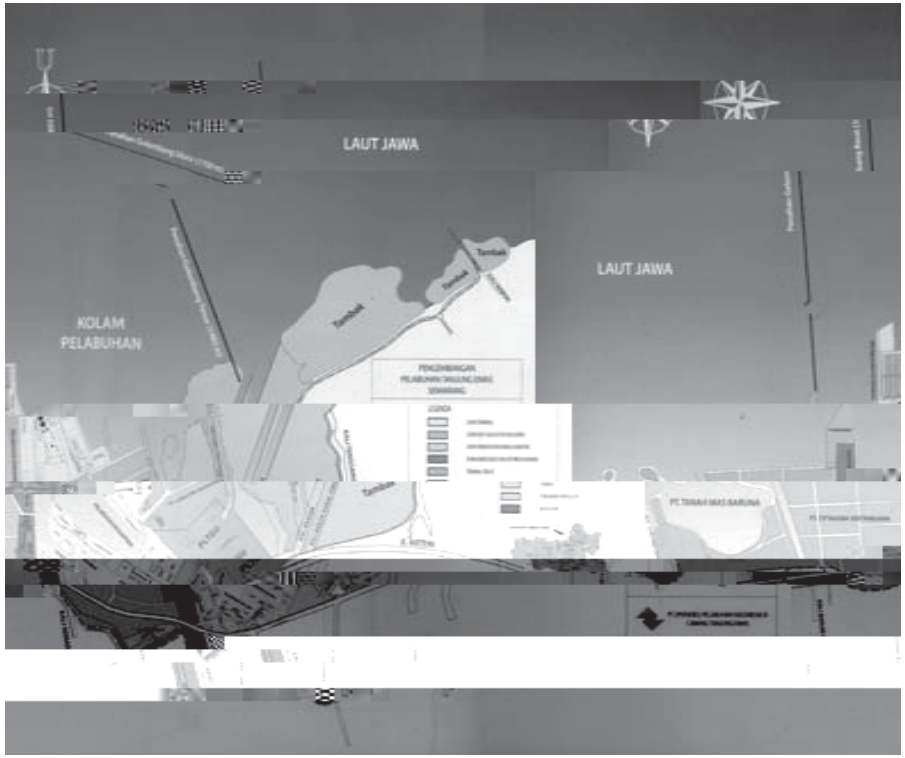
Source: PT Pelabuhan Indonesia III website (http://www.perakport.co.id).

Figure 5.7 Tanjung Perak Port layout

112 43.22 07 1.54 , M S , M I. I IPC III : T P S (TPS, S C T) 1999 B J T I (BJTI) 2002. S BJTI . TPS IPC III P O A P L , IPC III 51 P O A P L 49 A 1999 TPS fi . T , , , IMPSA C 12 (RTG) K C B S , A , M , R B S . I , IPC III. T fi fi - , A T P P , T E P M (IPC T E). B 2001, T P K S

Profile of Tanjung Emas Port

T E P (F 5.8) C J , 06 53.00 S 06 57.00 S 110 24.00 E 110 26.02 E. I , , 1874, S P . D 1964 66, 5 ' (3500 DWT) N P T E P . S 5 ' ff , . A fl , S P . T E P ffi 1985, IPC III. T fi fi - , A T P P , T E P M (IPC T E). B 2001, T P K S



Source: IPC III T P B (2005).

Figure 5.8 Tanjung Emas Port layout

(TPKS, S C T). S , TPKS F , TPKS 2005 2007.

4. PORT COMPETITIVENESS ANALYSIS: SUPPLY AND DEMAND SIDE

P O . D . T -ff F .

Methodology

( ) S S . A IPC (T P T E P), .[10] T , - , ’ T , ff - ( ) . F - T , T ff . I ffi ffi . M fl . T [11]

Supply Side: Competitiveness of Tanjung Perak Port and Tanjung Emas Port

A , - . T ff . I I , T P P S T E P S . T IPC III, ff - ff T

Geographical aspects

J , T P P (F 5.9) - , I . F I M , K , . I M S ff , . F , . S , M I, . T , . W B , T P P , S T L M .

I 2005, - (TRT) T P P 73 T E P 41 (T 5.2). T TRT T P P T E P , M S . T P P ; 25 100 . M , T E P C J J S . T , TRT. H , - . F , , , . T , . S , fl .

Source: IPC III T P B (2005).

Figure 5.9 Tanjung Perak Port in East Java and Tanjung Emas Port in Central Java

R I E , 200 T P P . S I E R (SIER), 1994, 290 fi 476 23 T P P . F , P I E R 60 , 500 . T T E P P S . A , T E P S C J P , U P . C N , S . T C J P Y (52.74), (45.02) O , (14.3), (12.27).

T T I 2006, T P 15 500, T E P . I T E P , 65 , 70 S , P K , T P P ., 30 H K , T ,C M . T B , M (N S) T P , J .

Infrastructure aspects

T P (T 5.4). T T P P 9.7 12 LWS ( ), T E S 3.5 10 LWS. A

Table 5.4 Infrastructure, facility and equipment: Tanjung Emas Port and

Demand Side: Competitiveness of Tanjung Perak Port and Tanjung Emas Port

The view of shipping lines

The view of cargo owners

6. CONCLUSION

NOTES

1. W TN M L
2. W ; . . -
3. T T P J . T S S J . T . M
T P
4. T IPC
5. W M :// .
6. T
7. THC
8. THC

O S ' R A (2005), S : THC I ', R , D R B (2002), R I ' ', T R P E G , P USAID.
U N C T D (1997), *Review of Maritime Transport 1997*, G : UNCTAD.
W W (2003), P ' , 23 IAPH W P C , 24 30 M , D , S A .
W B (2007), *Port Reform Toolkit*, 2 , W , DC: W B .

APPENDI

Table 5A.1 Respondents for in-depth interviews

Company/Institution	Position
Surabaya	
I P C III T P B	O S S M (PPSA)
I P C III T P B	P R
I P C III T P B	O D
I N S A (S B)	C
I N S A (S B)	H , D Aff
I N S A (S B)	H , D D Aff
I N S A (S B)	S
I E A E J	D C
I E A E J	T C I S A
I A I (E J)	C
I A I (E J)	A S
PT A T (I F F A)	S B M
PT H K S (I F F)	B M
PT U W B M	H R D
PT P E C	R M D
Semarang	
I P C III T E B	O M
I N S A (S B)	C
I N S A (S B)	S I
I A I (C J) I E A C J	C
PT A T (I F F A)	S B M
PT F M B	O D
PT D K U (S C)	M
PT B H S S (S C)	B M
PT B H S S (S C)	O D
PT D L (S C)	B M
PT A I C	D . M . L
PT A I C	D I M

6. I M : FDI

Tham Siew Yean, Evelyn Devadason and Loke Wai Heng

1. INTRODUCTION

A M , fl A.T. K ' G I 2006, M . I (FDI) M ' - , A.T. K ' FDI , M , - . T (TNC) FDI M ' , TNC E A . I , M ' E A . I , TNC E A E I , , 20 FDI (W B , 2003, . 51). I M , TNC - . G ff I , ff , ff E fi . I

M FDI . T -
M 1991 2006 S 2. T
M S 3. S 4 -
T
fi ff

2. OVERVIEW OF TRANSPORT INFRASTRUCTURE DEVELOPMENT IN MALAYSIA, 1991 2006

Infrastructure Development

M - I 1957.[1] T ,
, (M , 1991, . 145; 2001 ,
. 177). I , M ASEAN
(A N) C ,
S , W E F (ADB .,
2005).
F 1991 2005, M RM (M)
63 (T 6.1). A RM 30.3 N M P
(9MP: 2006 10).[2] T 21
1991 2000. I fi - , 28 ,
, 15
.
B (,) - (60 65) . B
, RM 15.2, RM
7.9 RM 4 S , S E
M P ,

Table 6.2 Road development indicators, 1990–2005

I	L			
	1990	1995	2000	2005
R [1]	0.16	0.19	0.20	0.24
R [2]	0.7	0.74	0.75	0.85
R [3]	. .	2.96	2.98	3.02

Notes:
[1] R .
[2] R .
[3] R 1000 .

Source: S (. 348); E (. 270) N M P (. 377).

12

Road Development

T , 53 984 1990 77 673 2005. T 1991 2005 RM 38.4 RM 27.1 .
R 0.16 1990 0.24 2
2005, 50 - (T 6.2). T 0.7 1990 0.85 2005, 2.96 1000 3.02
1995 2005.
G , P M E M , . A - . T
H N D P (1993 2004). M F R (P
M) A 1984, fi . D 8MP,
(2001 05), 16

 604.5 , .
RM 18.0 (M , 2006 , . 224). M B O T (BOT)
S - . A . PLUS

Table 6.3 Structure of the port industry in Malaysia, 2006

Federal ports	
B P A	B P S B
J J P A	P T P
	J J P B
	T L P S B
K P A	P
	K P C J S B
K P A	K P C J S B
P P C J	P P S B
	L P S B
	K C J S B
P K A	N J (M) B
	K M T S B
	S P P G
	S B (M P)
State ports	
M D	L M T S B
	K P S B
	L P ( )
	S . U P S B
M P A	(N)
K P A	(N)
R P A	(N)
S P A	S P S B

Source: Malaysian Maritime Yearbook, 2005/2006.

J ffi J J J J P J T 6.3.
M ', J , P J T P (PTP), J
J J P M , J J P R .
PTP' J J J J J . T J J
JP M T . I J J S J
L , J M S J J J S T
J J fl J J J J J
S J ', J . PTP' J fi J
2020. T J J J J
J J J , , J J J P 1
1995 J 1999. O J O J 1999
Jffi J J 13 M 2000.

I 1992, P K N L
C

Table 6.5 Port capacity, number of berths, cranes, ship calls and volume of cargo handled at ports, 1995–2010

I	1995	2000	2005	2010
P ( )	174.1	324.9	443.3	570.0
N	173.0	221.0	233.0	242.0
N [1]	51.0	131.0	217.0	265.0
N	70 098.0	81 313.0	98 345.0	130 000.0
V	152.3	223.9	369.4	539.0
( )				
G	30.1	23.3	44.7	47.0
L	60.7	87.5	103.8	202.0
D	23.7	28.6	38.2	44.0
C	37.8	84.5	182.7	246.0
C (TEU)	. .	4.9	12.1	18.0

Note: [1] I

Source: E (. 277) N M P (. 379).

2005, 152 369 (T 6.5).

F 2000 AP M -M 30 PTP. H P H W L (HWL), 30 K M T S B , W 2000.

3. FOREIGN DIRECT INVESTMENT AND INTERNATIONAL TRADE, 1991 2006

Foreign Direct Investment Inflows

M (FDI) fi (FTZ) 1972.[5] FDI 1985 100 fi 50 .[6] G P I A (PIA), 1986. T ff ff M

W T O (WTO) ASEAN F T A (AFTA).

T FDI- , - 1985 P A 1985 (NIE) S A . C NIE G S P (GSP) M , , C , - . C , TNC E A . B 1993, M FDI I , FDI 8.6 GDP ( ) 23.4 (GFCF) (T 6.6).

I 3.8 GDP 14 GFCF 1998 A FDI 100 . T 1999 4.9 GDP 22.5 GFCF. H , FDI - 2001 FDI 0.6 GDP 2.5 GFCF. A 2002, 2003 M - (C B , 2003, . 46). T 2004 2005, FDI 3.5 GDP 17 GFCF. I 2006, RM 26 4.7 GDP - 15.3779 4 - FDI 192

-
. I , fi
fl FDI M . I
ffi
FDI M .
D -
FDI M
FDI . O ,
fl FDI M
65 FDI 1990 1997 (T , 2004, . 192).
H , 52 1999 2004
-
,
-
FDI
(T 6.7).
W , -
(E E) fl , RM 3.7
1990 RM 10.9 2005, -

fi T P (K L), K H-T P (K), S A (S) S H-T P (S).[9]

Table 6.10 Manufacturing export structure (%)

I	1990	1995	2000	2005
F	9.93	7.94	4.65	6.99
B T	0.11	0.19	0.28	0.68
T T P	5.46	4.07	3.81	2.99
L L P	0.02	0.06	0.03	0.03
W W P	10.15	5.65	3.14	1.93
F F	0.52	1.09	1.42	1.53
P , P P	0.46	0.37	0.31	0.39
C C P	1.27	2.00	2.23	5.77
P P P	13.38	4.40	5.18	9.16
R P P	3.98	2.41	0.93	1.65
P P P	0.19	0.69	0.99	2.10
N -M M P	0.60	0.52	0.29	0.30
B M P	2.05	1.51	1.35	2.45
F M P	0.63	0.90	0.72	1.15
M M	3.51	11.98	20.92	20.96
Electrical & Electronic Products	**25.76**	**34.24**	**32.98**	**35.56**
T E	2.17	2.51	0.69	1.40
S M E	1.20	1.38	1.59	2.46
M	2.84	2.24	1.82	2.83

Note: R A 6A.2 .

Source: C *Malaysia: External Trade Statistics,*

1997. T -
M , ( ) FDI -
, ( )
1998.

T 6.10 I 1990, E E (26), (13), (10) (10) 1990. O E E
. T ( ) , B 2005, E E
36 21 ,
.

G , E E -
M - - , W - - M
(D , 2006).
D ff , , E E. M , , , , USA, S , H K , C J (T 6.11).
M , FDI . FDI 1985 2002 (M , 2006 , . 131). I , -

Table 6.12 Manufacturing import structure (%)

I	1990	1995	2000	2005
F	5.92	3.92	3.49	4.75
B T	0.34	0.26	0.20	0.67
T T P	3.67	2.31	1.38	1.34
L L P	0.07	0.17	0.08	0.12
W W P	0.13	0.22	0.29	0.32
F F	0.13	0.10	0.11	0.30
P , P P	1.79	1.60	1.08	1.21
C C P	5.21	4.30	4.25	7.87

36 2005,
1990 (T 6.12).

G M ,
. F , 1995/96
1995/96
fi (F 6.1; D , 2004, . 717).
T 1999
2000 1999
V- 1999
1998 A
2001/2002 (M 2005, . 25)
ff F 6.1.
B US 1 S 1998,
M US ,

H , US
(D , 2004, . 716) J 1995
A 1997 ,
, - -
M . T -
, A T -
J 2005
fl

4. INFRASTRUCTURE AND TRADE COSTS

M ’ .
T FDI .
A
M fi
2005 fi
I .
FDI
A S 3, P
FDI E E -
fi 10
.[10]
B
fi E
M . G fi E E
M ’ (, -
ff) . O
: ( )

Table 6.13 Average freight & insurance and tariff rates for Malaysia's E&E exports to the USA, 1991 and 2004 (%)

SITC	A							
	B		B		B		A	ff
	1991	2004	1991	2004	1991	2004	1991	2004
761	3.509	5.851	7.073	1.820	3.457	5.295	5.000	2.324
762	2.923	3.485	12.827	5.878	3.078	3.929	2.105	1.257
763	1.491	1.614	13.881	3.076	1.797	2.265	1.384	0.450
764	1.770	2.144	4.389	1.535	3.382	1.561	0.940	0.124
771	1.804	1.785	8.166	3.047	5.542	2.868	0.604	1.359
772	1.915	1.905	6.901	4.343	3.783	3.590	2.405	1.450
773	4.171	5.992	11.928	6.341	4.685	6.305	0.412	2.275
774		2.293	2.064	2.202	2.064	2.251	3.908	0.460
775	3.344	5.903	15.266	45.305	3.453	6.958	0.487	1.189
776	1.208	2.376	1.336	0.813	1.332	0.722	0.158	0.001
778	2.725	3.658	2.616	3.423	2.645	3.448	1.271	1.423

Note: E SITC 774 1991

Source: C D H

10- . I SITC 3- S 3 (A T 6A.3).

Bulk of Trade Costs from Freight and Insurance Costs

T 6.13 [12] ff E E 1991, SITC 761 774. B 2004, - ff T ff 1991 2004 ff M WTO. T ff 2004 (SITC 763, 764, 774 776). H ff 1991 2004, SITC 774, 775 778.

Table 6.14 Mode of transport for Malaysia's E&E exports to the USA

SITC	1991			2004		
	A			A		
			( )			( )
761	98.8	1.2	3.457	86.7	13.3	2.324
762	98.0	2.0	3.078	82.3	17.7	1.257
763	97.3	2.7	1.797	54.1	45.9	0.450
764	64.2	35.8	3.382	14.5	85.5	0.124
771	40.8	59.2	5.542	20.2	79.8	1.359
772	62.2	37.8	3.783	27.6	72.4	1.450
773	93.2	6.8	4.685	24.2	75.8	2.275
774		100.0	2.064	53.5	46.5	0.460
775	99.8	0.2	3.453	97.4	2.6	1.189
776	0.5	99.5	1.332	0.1	99.9	0.001
778	35.7	64.3	2.645	44.6	55.4	1.423

Note: E SITC 774 1991

Source: C D H

E&E Goods Exported by both Sea and Air, and Transport Mode is Product Specific

M E E USA . T 6.14 M USA 1991 2004. O , (. . SITC 761, 762 775) , E (. . SITC 764, 776) (-) (,), . I - , SITC 774 778. T - fi , . T

(M , 2006 , . 727). I
M S
fl fl C
(, I).

T , M A (MAS), -
I MAS
- - , - ,
- ,
(*New Straits Times*, 7 A 2007).

F

360 000 5 . I , MAS, fl I C R . I ICT- -fl P . I - , P A KLIA , I D R . KLIA', , 2020. H , P , B K S P B M P A fi P fi 1985 N S 1990. H - S P . T FDI FDI P , P A . T fl P A E E M .

NOTES

T A D B I (ADBI)' _ I ', R R T C .' T fi F C 25 26 J T

1. M I
2. T fi - - M .
3. M 13
4. STOL S T Off L
5. FTZ fi . FTZ -

FTZ, (FIZ), (FCZ) 14 FCZ .

6. B 1986, 30 N E P (NEP) 1970 .
7. T A M D E S B , A T S B , C (M) S B , F S S B , H S S B , I M S B , O O S S B R B (M) S B .
8. S A T 6A.1 FIZ M .
9. T T P (1998) 120 R D, K H -T P (1993) 1486 fi - (L Y , 2004).
10. T ffi 13 1991 2003 0.487.
11. W D H .
12. T *ad valorem* (H 2007).
13. N SITC 762 763 SITC 764 T 6.14). T - fl E E - .
14. A fi P A (60), KLIA (30) S (10).
15. A .

REFERENCES

A D B , J B I C W B (2005), *Connecting East Asia: A New Framework for Infrastructure*, M , T W , DC: A D B , J B I C W B .

C B (2003), *Annual Report 2003*, K L : C B .

C B (2006), *Annual Report 2006*, K L : C B .

D , E. (2006), A ', K L : U M .

D , A. (2004), T A: M ', *World Economy*, **27**(5), 715–26.

H Z (2004), D FDI fl - M ', I H.S. K (.), *Foreign Direct Investment in Developing Countries*, B : P M , . 8.

H D. (2007), T ', *Journal of Economic Perspectives*, **21**(3), 131–54.

L , M.-C. S.-F. Y (2004), T M ', *Asia-Pacific Development Journal*, **11**(2), 53–80.

M . ( ), *Transport Statistics Malaysia: 2003–2004*, P : M .

APPENDI

Table 6A.1 Free industrial zones (FIZs)

NZ	FIZ	S
1	S W	S Z
2	T P G	
3	PZ K	
4	H K	W P

Table 6A.2 Trade classification

Table 6A.4 Results for regression estimations

	E (6.1)	
	P	F ff
constant	□1.511	□2.174
	(0.255)	(0.116)
f^{air}/		

Table 6A.5 Percentage share of each product in E&E exports, 1991–2004

SITC	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
761	3.73	4.17	4.76	4.88	4.00	4.51	4.74	5.73	6.98	6.20	7.59	12.10	9.48	7.59
762	17.27	18.32	16.61	16.65	15.10	13.03	10.64	11.26	9.77	7.71	8.19	7.52	7.54	7.34
763	13.60	14.20	13.91	15.32	12.88	11.50	10.36	10.08	9.81	10.14	11.59	8.10	8.09	8.12

7. I - : P ' R C

Liqiang Ma and Jinkang Zhang

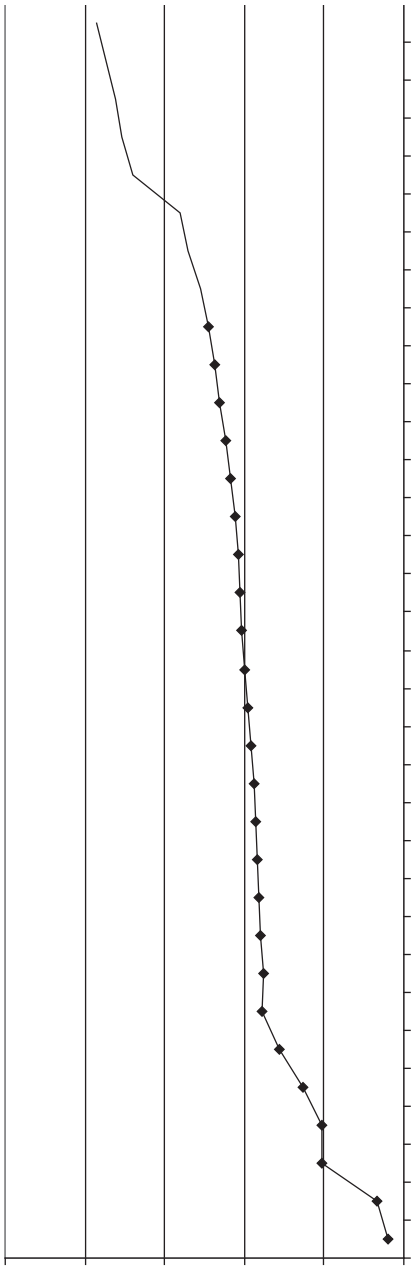
1. INTRODUCTION

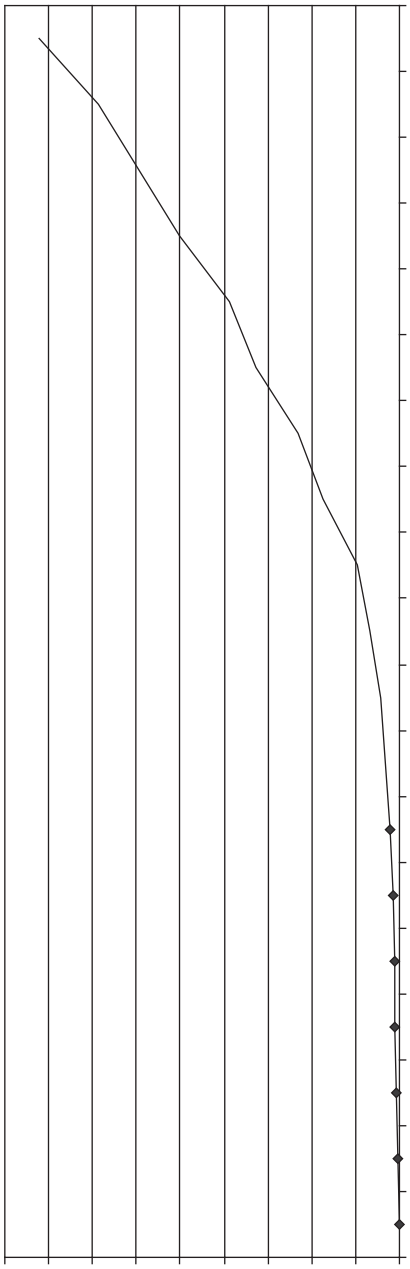
T P ' R C (PRC) - 1978. T - . I , 1978, . I , , F , , ff (FDI), FDI fl ; - . D - , H , , , , C , , T - H , , [1] C [2] , ffi . H .

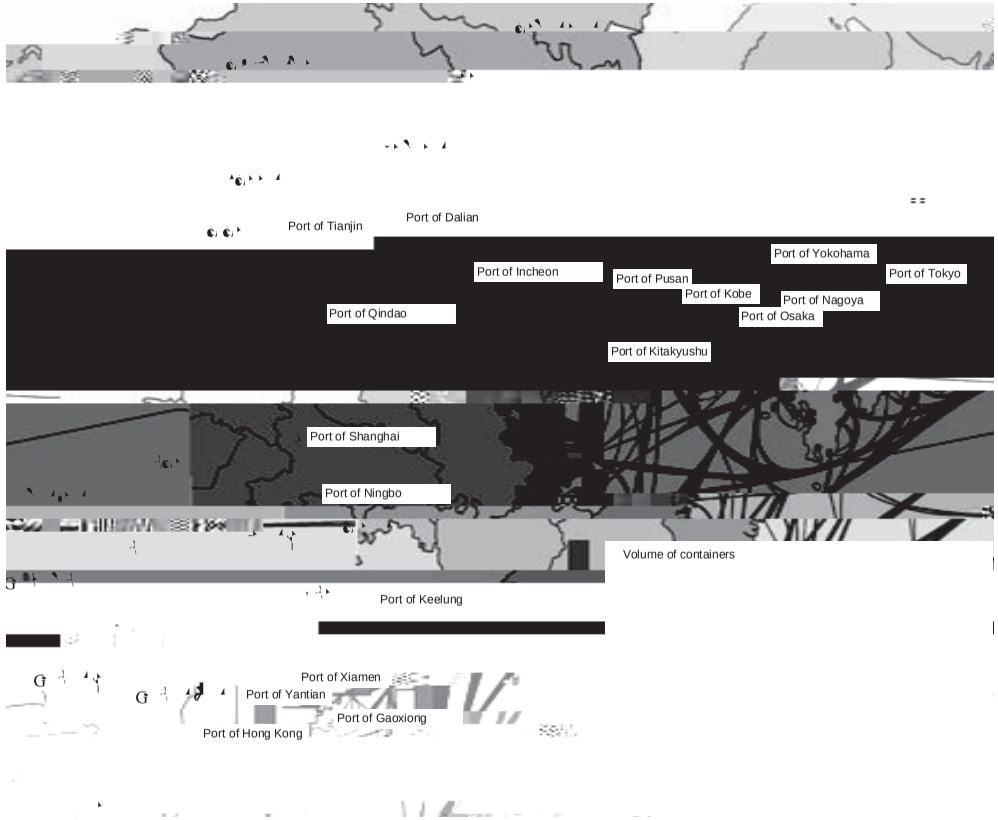
I 2006, GDP C 20 940 (RMB),
10.7 .[3] C ,
USA G , US 1.76 , 24
, US 177 .O
11 D 2001, C WTO. O 21 J 2005,

Railways

Highways and Roads






Port of Tianjin
Port of Dalian
Port of Yokohama
Port of Incheon
Port of Tokyo
Port of Pusan
Port of Kobe
Port of Nagoya
Port of Qindao
Port of Osaka
Port of Kitakyushu
Port of Shanghai
Port of Ningbo
Volume of containers
Port of Keelung
Port of Xiamen
Port of Yantian
Port of Gaoxiong
Port of Hong Kong

C £ 1 995 500 £ £ £ 855 000

16 ,
(5), (3.7
) (1.6).[6]
C ’ - .
O , .
- . W .
ffi , , , C , .
Y R G P .
G -Z A . R , P R
.
D - . .
fi T
, . T
C .
, (. F 7.8).
F , .
M . C ’ .
. T .
C . T
ffi .
.
F 7.9 . 1991 .
2005. A C .
.
2002.

3. TRADE AND TRADE COSTS: US IMPORTS FROM CHINA

Definition

T fi , fi : (ff - ff), ff fi ( ). (A W , 2004, . 691).

C 1978. T fi M , C ' WTO 2001. T , . I .
I C ' fi , ff - , ff

reform and the opening-up policy. However, we can gain useful insights b studying trade costs in the context of China.

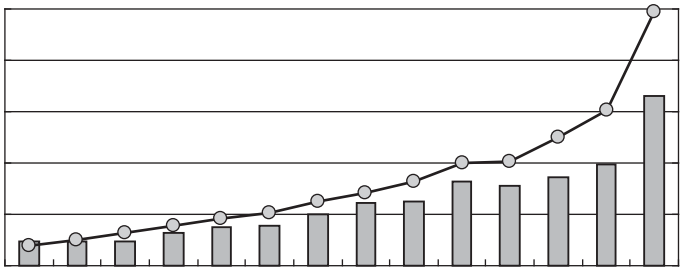
Based on the available data, trade costs in this section are confined to freight, insurance and duty when the USA ships goods from China.[7] We investigate these trade costs, and their trends from 1991 to 2004.[8]

In addition, trade costs incurred when moving goods from door to port[9] and at the port[10] will be presented in Section 4, which focuses on how p development facilitates trade and reduces trade costs, and how less de oped infrastructure and poor logistics management in inland provinc remain quite high costs for exporting activities, as evidenced below.

Data and Methodology

The USA is China•s top trading partner: its share in China•s expo increased from 8.5 per cent in 1990 to 21.5 per cent in 2005, as show Table 7.1. Moreover, shipping between the USA and China in 2005 grew a faster pace than that between the USA and the world market. Accordi to The Colography Group•s Annual IS International Cargo by Commodity and Country database, China was the largest market in terms of ves value, for US imports and exports. US ocean imports from China grew b 21 per cent and air imports grew by 37 per cent in terms of trade value, a by 19 per cent and 21 per cent in terms of cargo volume.

Studies of trade costs of Sino…US trade are valuable in investigating issues arising from trading with other countries. Moreover, US impo data at the HS 10-digit[11] level as the primary data source provide impo value and imports quan as the 7 0 0 7Dum .0572 Tw 9Tw (1 Cotu



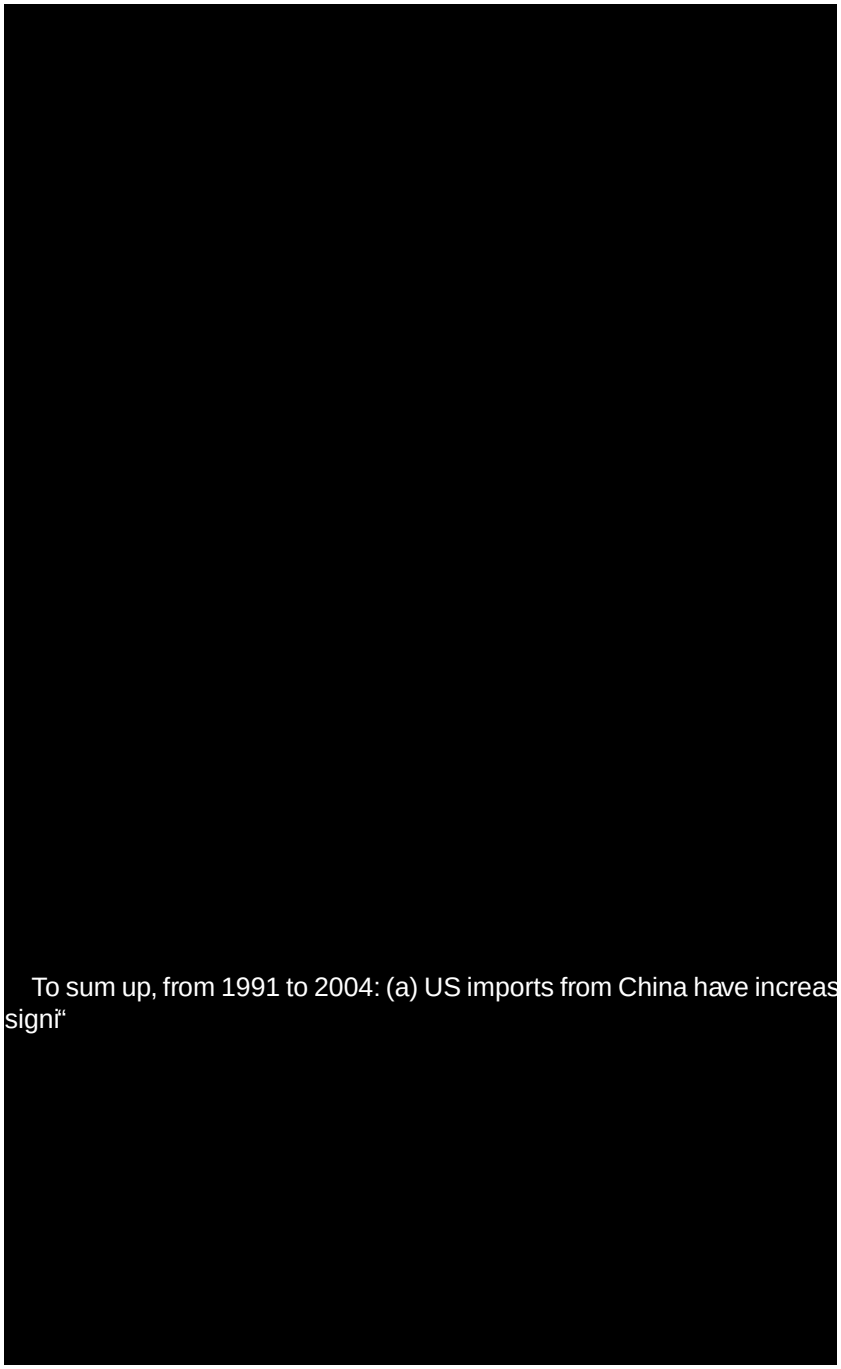
. T ( ), 1991 2004 .

Findings

Share change by mode of transportation

A F 7.10, ( ) US C 2004 13 1991. A , C USA fi . I 2004, 66.33 C USA, 65.46 870 , fi 2000.

M , C USA , A 99 C USA . G , fi , fl M , 84 (HS 2- fi) 2004, C USA. T 1991 27.6 2004, T C ' USA (F 7.11 7.12).



To sum up, from 1991 to 2004: (a) US imports from China have increas
signi“

2004. B 1995, 1995. I 2004, 30.1 .[16]

- *Trade costs by air declined dramatically, benefiting from a rapid decrease in duty costs for high-value goods and development of the aviation industry. Lower air transport costs played an important role in the growing fragmentation of trade.*

F , ff ff : . F 7.14 7.15 . T fi fl . T *ad valorem* 2002 - . T : .[17]

Explanations: A View from Compositional Change of Trade

T H S (2004) 10 4

ad valorem

Weight–value ratios

Weight–value ratio is declining for China's exports

T *ad valorem* T *ad valorem* *ad valorem* C fi F 7.13, 7.14 7.15.

4. CASE STUDY OF CHINA'S SEAPORTS: SHANGHAI AND SHENZHEN

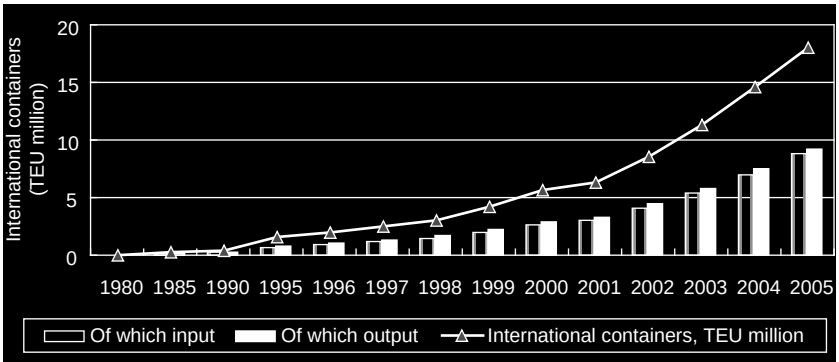
S fi . A 90 C ' B 2005, [18] T 150 C . 4933 [19] 2.89 T 3.38 2005, 0.47 T 208 - 58.78 TEU 71.9 TEU, 13.12 TEU.

S P C ' , . S 1978, , . M , S P . T S P A - ff . F , ffi . I C 0 C

N . T YRD' US 781.4 2005, 25.4 C ' (A T 7A.4).

W P R D YRD fi . (T 7.2). F , S J 57 J Z 70 ' fi 2005. W YRD , J Z fi , S - S 17 ' 2005.

T YRD . F 2001 2005, 44 US 276 2005, 36 M , , - M USA, EU, J , H K K .



Source: Shanghai Statistical Yearbook 2006.

Figure 7.19 International container throughput in Shanghai, 1980…20

Table 7.3 Transport to the US west coast of a container from an inland province of China

	US$ per TEU	Percentage of tota
Land access to port	2300	63
Port handling	200	5
Maritime transport	750	21
Port handling	150	4
Port to “nal destination	250	7
Total	3650	100

Source: Carruthers (2003).

High transport cost from inland province to coastal port

Table 7.3 provides a breakdown of the costs for goods transported from t inland province of China to “ nal destination of a foreign market (US wes coast). It shows that a very high proportion of costs are incurred in mov ment from inland province to coastal port.

Table 7.4 shows the distance, time and cost by di erent modes of trans portation from ports (Wuhan and Chongqing) of the upstream Yangtz River to Shanghai.[24] This indicates that the trade costs for inland regio are quite high, and weaken the competitiveness of exports from the inla provinces. Cheaper rates by inland waterway or railway are usually n available due to limited capacity. On the other hand, truck transportatio is more attractive because it takes much less time than by rail or by ba

A , - .
E - .
I C ffi - .
T B , .
. T .
I ffi [26] - .
A , - .
ffi , fl , [27]
C , 50 , - .
T .
ff ffi .

Shenzhen Port: Port Development Promotes Trade

Economic and trade development: Shenzhen
S P R D (PRD)T 0 04.9

Although the PRD economic zone encompasses only 0.4 per cent of land area and only 3.2 per cent of the 2000 Census population of mainla China, it accounted for 8.7 per cent of GDP, 35.8 per cent of total trad and 29.2 per cent of utilized foreign capital in 2001. These figures show th remarkable level of economic development that the PRD economic zo has achieved and the international orientation of the region•s econor This orientation has attracted numerous investors from all over the wor who use the Greater PRD region as a platform for serving global a Chinese markets. Since the onset of China•s reform programme, the P economic zone has been the fastest-growing portion of the fastest-grow province in the fastest-growing large economy in the world[28].

The PRD started producing labour-intensive consumer goods such food and beverages, toys and clothes in the early 1980s. After 1985, in trial relocation, mainly from Hong Kong, accelerated the growth of ligh industry in the PRD until the early 1990s, followed by heavy industry fe turing high-tech electronic equipment and machinery, chemical produc and autos playing a leading role in industrial output and export.

The PRD is a major manufacturing base for electronic products (such watches and clocks), toys, garments and textiles, plastic products, an range of other goods. The toy industry in the PRD has a world productio share in excess of 60 per cent. Watches produced in Shenzhen alone in accounted for more than 40 per cent of the global market. Much of th output stems from investment by foreign entities and is geared to the exp market. The PRD economic zone accounts for approximately one-third China•s trade value.

Nearly 5 per cent of the world•s goods were produced in the Greater P in 2001, with a total export value of US$289 billion. Over 50 000 Hon Kong companies have plants there, according to a 2002 survey.

The export-led economy and Shenzhen Port development

When China started its open-door policy, Shenzhen was selected as "the first of the special economic zones (SEZs) in China in 1979 due to its proxim to Hong Kong. The location was chosen to attract industrial investmen from Hong Kong, which is nearby and has a similar culture. The conce proved a great success, propelling the further opening up of China and c tinuous economic reform. Shenzhen eventually became one of the lar cities in the PRD region, with 8.27 million people (see Appendix Figu 7A.4 and Appendix Table 7A.5). Shenzhen has also become one of the nomic powerhouses of China, as well as the largest manufacturing bas the world.

Shenzhen was a fishing village before 1979, with 30 000 people. It h started a large number of infrastructure construction projects during th

27 B 1979 2006, S 705 RMB
fi 36.4
. T
, , , ,
S
C , H K T S A
M 1989 S 1991. I 2004, S
A
C . S P ,

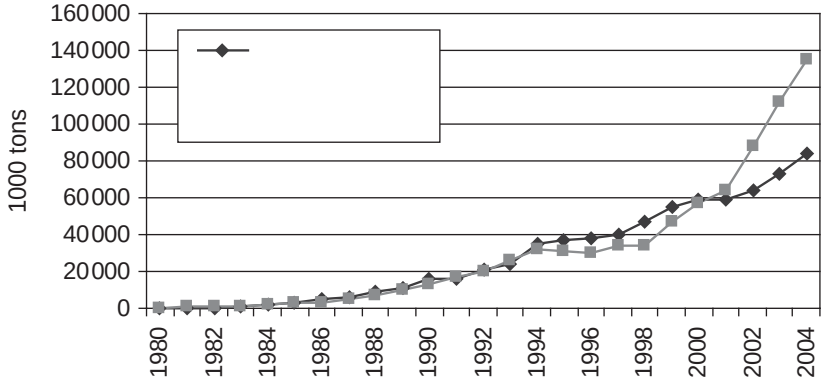
Table 7.5 Container throughput of Shenzhen Port

Y	YICT		S	P	S '	S '
	(TEU)	G (%)	(TEU)	G (%)	C	
1994	13 000	0	179 000	0	8	
1995	106 000	715	284 000	59	7	
1996	353 509	233	589 000	107	4	
1997	638 000	80	1 148 000	95	2	35
1998	1 038 000	63	1 952 000	70	2	17
1999	1 600 000	54	2 978 000	53	2	11
2000	2 147 000	34	3 993 000	34	2	11
2001	2 700 000	26	5 076 000	27	2	8
2002	4 182 000	55	7 614 000	50	2	6
2003	5 258 000	26	10 652 000	40	2	4
2004	6 260 000	19	13 655 000	28	2	4
2005	7 660 000	22	16 197 000	19	2	4
2006	8 865 000	16	18 468 900	14	2	4

Note: YICT , Y I C T

1994. I , Y P 13 000 TEU O , 2006, 8.86 TEU. Y P 40 ' M , E , A A . W S , S P S - E (, T 7.5).

D S 20 RMB - . E S C ; S C . P Y P . I ff B K B G . W , Y P C , H , S , Y G (, A F 7A.5).



I , B , ' S P T . F , S P , . S FDI C . T 7.6 S P fi Y , G S P - C _ - , / . T

5. CONCLUDING REMARKS

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

NOTES

1. L

16. C ff ( ) 44.1 1991 35.2 1995, 12.3 2002 (R , 2006, . 4).
17. I , ; 1 .
18. M C PRC (2007).
19. I 1108 10 000
20. A Y R D , Y R D . T : W , Y , L , W , M , H T . H , YRD 16
21. :// . .
22. T fi S 200 2005 280 2010. I :// . .
23. C P S P S SC C , ff T P S G S C . I P S P S H K .
24. F , , 40- C S US 1200, S LB US 2000, S P US 600. I G I L :// . .
25. T Y R , 6300 - S C , 50 C , 80 - . T - Y R _ G D P W ' 2000 12 C , Y , S , T S . T Y R _ G W ' .
26. T C ffi , C ffi . T fi 2006 (TN1 -1.1) 6 -T

C , C (2006), G Y R D ', U B C , :// . . . .
D , P (2007), I : A ', ARTNET W P N 26, UNESCAP, B .
G I L (2006).
H D A S (2004), S A A ', *Journal of P*

APPENDI MAPS AND STATISTICAL INFORMATION

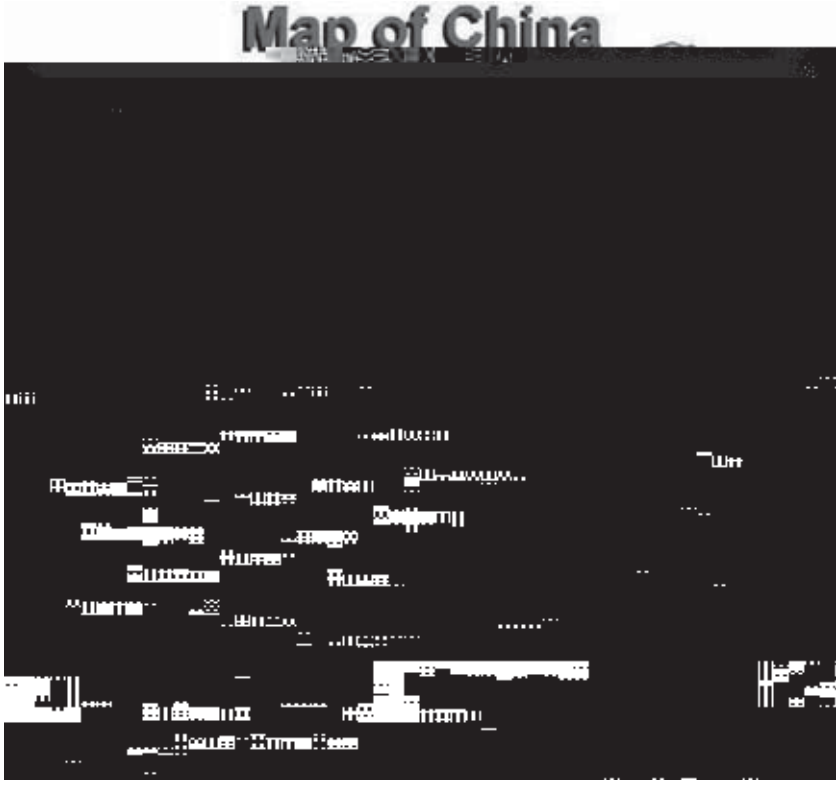


Figure 7A.1 Map of China

Table 7A.1 Major economic indicators of China, 2006

M	V	G
A (^{2},)	9.6	
P	1 314.50	
GDP (RMB)	20 940.70	10.7
U	11 759	10.4
R	3 587	7.4
F (RMB)	9 347.20	24.5
A (RMB)	7 975.20	16.6
C (RMB)	7 641.00	13.7
C		1.5
U		4.1
E (US)	969.1	27.2
- (US)	563.8	26.9
I (US)	791.6	20.0
- (US)	472.6	22.0
T (US)	−177.5	
FDI		
	41 473	−5.8
(US)	63.0	4.5
F (US)	1 066.3	30.2

Notes:
R .
U
A - RMB 5 .

Sources: T N B S M C , G
A C

Table 7A.2 Import and export value of commodities by places of destination or origin in China by region

R	2000			2005			2000 2005
	T (US)	S (%)	R GDP (%)	T	S (%)	R GDP	A (%)
National total	**474.3**	**100.00**	**20.79**	**1421.91**	**100.00**	**34.09**	**24.60**
G	175.49	37.00	78.75	439.18	30.90	87.23	20.10
S	54.7	11.50	46.12	181.5	12.80	81.18	27.10
T	17.16	3.60	43.56	54.63	3.80	60.66	26.10
J	49.19	10.40	24.85	238.48	16.80	55.03	37.10
Z	31.52	6.60	26.66	123.81	8.70	46.82	31.50
F	22.96	4.80	27.26	56.8	4.00	43.45	19.90
B	24.24	5.10	39.97	53.49	3.80	36.72	17.10
L	20.07	4.20	19.25	47.04	3.30	23.97	18.60
S	28.25	6.00	15.05	89.12	6.30	20.40	25.80
	2.59	0.50	7.31	8.3	0.60	15.85	26.30
H	1.09	0.20	12.82	2.12	0.10	9.36	14.10
N	0.53	0.10	10.20	1.18	0.10	9.29	17.30
H	3.99	0.80	3.69	10.47	0.70	9.02	21.30
H	5.49	1.20	6.04	19.33	1.40	8.86	28.60
A	3.69	0.80	5.92	9.26	0.70	7.91	20.20
S	2.79	0.60	6.23	9.09	0.60	6.92	26.60
S	2.39	0.50	6.53	6.15	0.40	6.86	20.80
C	1.85	0.40	5.19	4.23	0.30	6.72	18.00
Y	1.88	0.40	4.98	5	0.40	6.23	21.50
G	2.28	0.50	6.01	5.76	0.40	5.78	20.30
J	2.99	0.60	5.71	7.36	0.50	5.58	19.80
H	3.89	0.80	3.75	9.99	0.70	5.56	20.80
T	0.15	0.00	7.99	0.13	0.00	5.39	□2.40
S	2.78	0.60	2.88	7.67	0.50	5.22	22.50
J	2.05	0.40	4.95	4.96	0.30	4.93	19.30
	0.23	0.00	3.52	0.49	0.00	4.87	16.70
H	2.99	0.60	3.71	6.96	0.50	4.71	18.40
G	0.69	0.10	3.49	2.99	0.20	4.62	34.00
H	3.12	0.70	2.41	9.07	0.60	3.94	23.70
I M	2.39	0.50	5.73	5.3	0.40	3.73	17.30
G	0.86	0.20	3.50	2.04	0.10	3.56	18.90

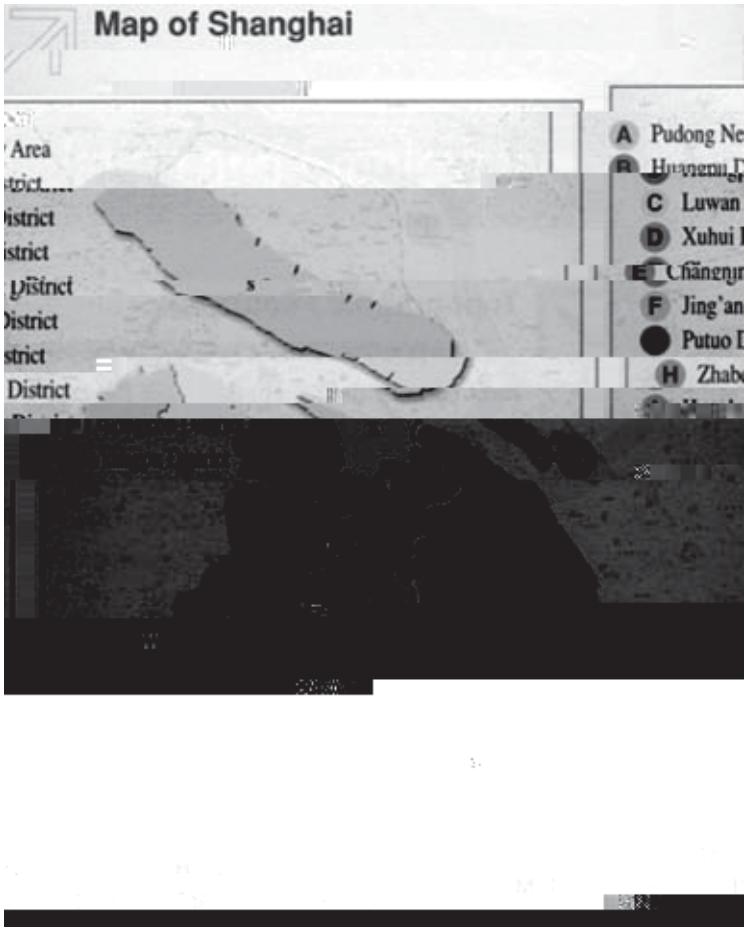
Source: C *China Statistical Year Book*, 2006, T 18-12.

Table 7A.3 Per capita GDP by region

R	GDP (US)				A	
	1990	1995	2000	2005	1990	2005
National Total	**343.70**	**604.24**	**949.22**	**1713.93**	**11.3**	
S	1235.57	2268.35	4173.15	6283.68	11.5	
B	1019.82	1566.88	2713.08	5547.57	12.0	
T	757.02	1234.34	2173.49	4368.20	12.4	
Z	443.64	966.83	1626.04	3381.84	14.5	
J	439.66	874.03	1422.13	2998.16	13.7	
G	530.40	1017.24	1556.46	2982.90	12.2	
S	379.45	689.50	1154.21	2453.21	13.3	
L	564.06	823.85	1356.06	2317.35	9.9	
F	368.58	812.72	1401.36	2276.21	12.9	
I M	309.00	435.76	709.32	1993.60	13.2	
H	306.28	532.15	925.66	1804.51	12.6	
H	423.98	654.41	1034.26	1762.03	10.0	
J	365.03	528.56	827.09	1629.45	10.5	
	376.11	577.06	902.35	1600.16	10.1	
S	319.45	427.37	620.53	1525.32	11.0	
H	325.31	498.38	868.28	1395.44	10.2	
H	228.09	396.72	657.61	1385.06	12.8	
C			622.95	1340.63		
H	332.20	625.67	832.77	1327.07	9.7	
H	269.28	415.52	681.17	1272.75	10.9	
N	291.23	398.52	584.53	1249.92	10.2	
	325.72	410.73	614.49	1226.24	9.2	
S	259.45	340.44	549.50	1208.42	10.8	
J	237.08	369.18	585.98	1152.39	11.1	
T	266.77	286.43	550.71	1112.59	10.0	
S	237.08	368.94	577.89	1106.00	10.8	
G	222.86	395.64	521.72	1072.79	11.0	
A	247.11	401.99	587.92	1059.00	10.2	
Y	255.90	364.51	560.13	956.46	9.2	
G	229.76	273.98	463.62	912.75	9.6	
G	169.34	221.89	321.56	616.72	9.0	

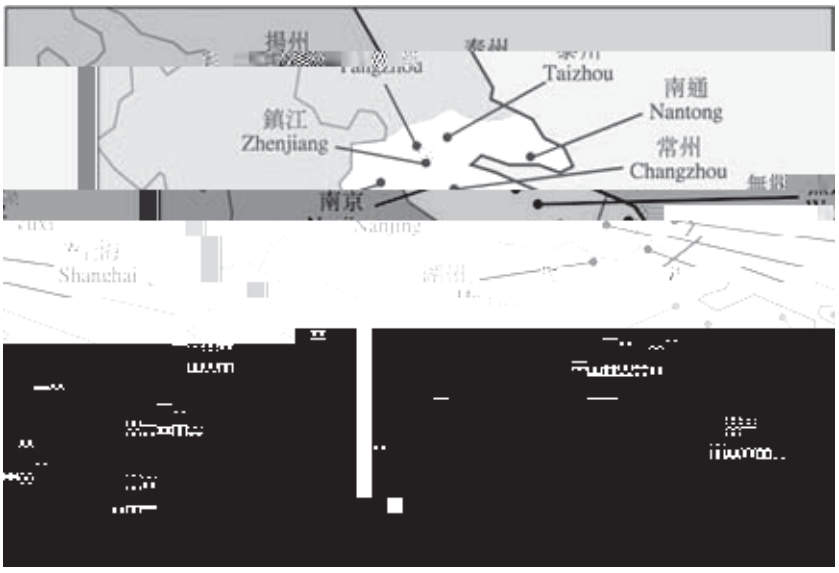
Note: I 1997, C S P - , B , T S .

Source: C E I N : :// . . . /.



Notes:

- **Area (2004)** 6341 [2] 0.06 PRC
- **Population (2005)** 17.78 1.39 PRC
- **GDP (2005)** US 111.75 4.63 PRC
- **GDP per capita (2005)** US 8 4753.9 6 0 10 145.205 253.096 T (_)T /F3 1 T/-8 .2053.J 96 _



Notes:

_ **Area**	109 961 [2]	1 PRC
_ **Population**	82.7 (2005)	6.3 PRC
_ **GDP**	US 414.5 (2005)	19 PRC
_ **GDP per capita**	US 5015	US 1714 PRC
_ **Retail sales**	US 131.1	16 PRC
_ **Industrial output**	US 333.7	25.4 PRC
_ **Exports**	US 276	36 PRC
_ **Imports**	US 227	32 PRC
_ **Actually used FDI**	US 26.3	43 PRC

Source: C E I N : :// . . . /.

Figure 7A.3 The Yangtze River Delta

Table 7A.4 Major economic indicators of the Yangtze River Delta, 2005

C	L (2)	P ( )	GDP (US)	GDP ( )	P GDP (US)	I (US)	R (US)	E (US)	A FDI (US)
YRD Total	**109 961**	**82.7**	**414.5**	**13.4**	**5 015**	**781.4**	**131.1**	**276.0**	**26.30**
S	6 341	13.6	111.7	11.1	8 236	206.0	36.3	90.7	6.80
N	6 582	6.0	29.4	15.1	4 990	49.6	12.3	14.2	1.40
S	8 488	6.1	49.1	15.3	8 148	120.9	11.0	72.8	5.10
W	4 788	4.5	34.2	15.1	7 606	69.8	10.1	15.5	2.00
C	4 375	3.5	15.9	15.2	4 541	30.6	5.4	6.1	0.70
Y	6 634	4.6	11.3	15.0	2 471	17.7	3.7	1.9	0.50
Z	3 847	2.7	10.6	15.0	3 978	16.2	2.9	2.0	0.60
N	8 001	7.7	18.0	15.1	2 326	26.2	6.5	5.8	1.50
T	5 797	5.0	10.0	15.0	1 997	14.8	2.9	1.3	0.50
H	16 596	6.6	35.9	13.0	5 474	66.4	11.9	19.8	1.70
N	9 365	5.6	29.9	12.5	5 389	59.7	9.3	22.2	2.30
J	3 915	3.3	14.2	13.1	4 235	26.6	4.6	7.0	1.20
H	5 817	2.6	7.9	14.1	3 055	13.1	2.9	2.0	0.70
S	8 256	4.4	17.7	13.3	4 062	39.2	4.7	8.1	0.90
Z	1 440	1.0	3.4	15.0	3 531	3.5	1.2	1.0	0.03
T	9 411	5.6	15.3	13.4	2 738	21.2	5.4	5.2	0.30

Notes:
GDP YRD GDP RMB 5 .
I .

Sources: *Statistical Yearbooks* S , J Z , 2006, :// . . .

Table 7A.5 Major economic indicators of the Pearl River Delta, 2004

C	L (2)	P ( )	GDP (US)	GDP ( )	P GDP (US)	G (US)	R (US)	E (US)	A FDI (US)
Total PRD[a]	**54653.60**	**27.14**	**164.02**	**n.a.**	**6043**	**282.81**	**51.51**	**182.44**	**9.00**
G	7434.40	7.38	49.73	15.00	6799	60.94	20.24	21.47	2.40
S	1952.80	1.65	41.36	17.30	7161	78.65	11.06	77.84	2.35
Z	1687.80	0.86	6.60	13.80	5056	15.26	2.17	9.04	0.47
F	3848.50	3.51	20.01	16.30	5758	40.25	6.55	13.83	0.69
J	9451.00	3.86	10.08	12.20	3720	15.98	4.70	5.08	0.51
D	2465.00	1.62	13.96	19.60	8699	31.21	2.16	35.19	0.97
Z	1800.10	1.39	7.37	18.70	5317	20.48	2.57	10.01	0.51
H	11158.00	2.93	8.28	15.10	2857	13.53	1.36	8.74	0.63
Z	14856.00	3.94	6.63	13.20	3198	6.51	0.70	1.24	0.48

Notes: A - - 5
T .

Sources: *Statistical Yearbooks* S , J Z , 2006, :// . . .

Source: Y I Ł CŁ T ,L .

8. T SA :

Prabir De

1. INTRODUCTION

A SA A ,
 .[1] A
 I SA A F T A
(SAFTA), US 14 US 8 .[2] A SA A
 R -
 SA A , H SA A

ffi , ff

I fi ffi .[4] A - , , SA , TA , SA A , [5] A fi - . T . T , SA A . T TA , SA A I , -SA A I .[6] T ffi SA A fi I , . A , . T S 2 - SA fiA . S 3 SA A . F , - S 4.

2. INTRA-SOUTH ASIA TRADE FLOWS AND TRANSPORTATION COSTS: SOME STYLIZED FACTS

T - SAARC. B (FTA) 1 J 2006, SA A . H , SA A . SAARC fi .[7] T

*Table 8.3 India's merchandise trade with South Asian countries in 2005–06**

Table 8.3 ( )

Notes:
E I ' A , B M
D .
C T 8A.1.

Source: C E I D , M C
I , G I .

B , - N
P , I ' I ' I ' I '
. W I ' A ,
, ,
I I ' ,
A , ,
, ,
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T fi ( ) I ' S A
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( ) I ' .
S A N
S L .
F -S A fl , , ,
. T
.[9] S S A ff -
fl S A . W ,
S A .
T W B , *Doing Business Database*,[10] ,
S A . I ,
' S -S A (T
8.5( )), ,
C A ,
L A . A T 8.5( ), S A 34.40

Table 8.4 India's trade with selected South Asian countries in 2005–06

C	B				N			
	E		I		E		I	
	V (US)	S ( )	V (US)	S ( )	V (US)	S ( )	V (US)	S ( )
F	324.55	19.50	15.97	12.57	26.45	3.08	52.92	13.93
F	185.28	11.13	1.59	1.25	414.65	48.22	7.38	1.94
C	107.78	6.48	40.72	32.06	40.40	4.70	47.79	12.58
E	50.91	3.06	2.74	2.16	19.59	2.28	4.39	1.16
I	129.77	7.80	0.89	0.70	37.82	4.40	49.39	13.00
M	37.94	2.28	4.21	3.31	7.41	0.86	21.14	5.57
M	60.16	3.61	1.17	0.92	30.91	3.59	2.55	0.67
L	0.54	0.03	2.42	1.91	0.38	0.04	3.18	0.84
P	16.11	0.97	0.07	0.06	13.06	1.52	1.89	0.50
P	23.54	1.41	0.00	0.00	45.64	5.31	5.17	1.36
R	49.74	2.99	1.90	1.50	22.66	2.63	41.45	10.91
T	381.85	22.94	51.65	40.66	26.40	3.07	71.72	18.88
A	79.86	4.80	0.02	0.02	55.36	6.44	0.78	0.21
T	0.22	0.01	0.00	0.00	1.15	0.13	0.00	0.00
M	216.11	12.98	3.68	2.90	118.09	13.73	70.10	18.45
T	1664.36	100.00	127.03	100.00	859.97	100.00	379.85	100.00

C	P				S L			
	E		I		E		I	
	V (US)	S (%)	V (US)	S (%)	V (US)	S (%)	V (US)	S (%)
F	87.47	12.69	34.54	19.24	58.52	2.89	36.99	6.40
F	45.51	6.60	0.73	0.41	655.65	32.38	14.40	2.49
C	235.08	34.11	24.31	13.54	76.74	3.79	36.05	6.24
E	3.19	0.46	1.53	0.85	46.66	2.30	28.64	4.96
I	37.71	5.47	0.54	0.30	147.63	7.29	14.32	2.48
M	7.28	1.06	0.06	0.03	73.21	3.62	7.91	1.37
M	7.59	1.10	6.57	3.66	84.92	4.19	210.58	36.45
L	0.21	0.03	1.71	0.95	1.84	0.09	2.55	0.44
P	0.10	0.01	0.05	0.03	47.95	2.37	15.55	2.69
P	5.97	0.87	0.03	0.02	62.90	3.11	0.15	0.03
R	87.50	12.70	1.91	1.06	66.75	3.30	16.27	2.82
T	77.68	11.27	35.72	19.89	216.60	10.70	9.27	1.60
A	0.39	0.06	0.06	0.03	293.14	14.48	1.25	0.22
T	0.00	0.00	0.00	0.00	26.05	1.29	0.69	0.12
M	93.55	13.57	71.80	39.99	166.11	8.20	183.08	31.69
T	689.23	100.00	179.56	100.00	2024.67	100.00	577.70	100.00

Source: A T 8.3.

Table 8.5 ( )

( ) S A

E T R T R
( ) ( )
I 27 4 41 5
B 35 5 57 7
B 39 6 42 6
N 44 7 37 4
Max 105 139
Min 3 3

Notes:
R S A .
F *Doing Business Database 2007*, .

Source: *Doing Business Database 2007*, W B .

41.50 S -S A 40 51.50 I US 1236 S A , US 1494 . I , S A OECD , .
W S A , N S L , OECD . I , - S A . A N B , 44 57 , . I , S L ' . T - fi S L .
T .
. T . T S A ' . T I B .
T S A . F , I '

, . W , S A .

3. TRADE TRANSPORTATION COSTS: REGIONAL PROFILE

3.1 Data and Methodology

T S A U S A, C T , S A M . T (,) . ( ) T H . . . / . . . .[13]
T
T fi

$$\mathbb{Z} \quad \mathbb{Z} \quad \mathbb{Z} \quad \mathbb{Z}$$
$$\mathbb{Z} \setminus \mathbb{Z}$$

□ i □ □ □ □ k □ □ j, Q_{ij}^{k} □ □ □ □ □ k TEU \ □ i □ □ j, f_{ij}^{k} □ □ TEU □ □ □ □ □ k \ □ i □ □ j, k □ □ (4- HS) \ □ i j, n □ \ □ \ □ i. W □ f_{ij}^{k} □ - □ □ □ □ . F_i □ □ □ 4- HS □ □ □ □ i □ □ 2005.[17]

Estimation of *ad valorem* transportation costs

W □ *ad valorem* □ □ □ □ □ (\ □

$$w_{it} \square \sum_k S_{ikt} w_k \quad (8.5)$$

w_k HS 4- k ( ) 2005, S_{ikt} k i t, w_{it} i' t.

Data

T HS fi 4- , 3029 , B , I , N , P S L . C - M S (2007), ' 4- HS COMTRADE (UN, 2007).[19] 12 W H , - ( ) . T - - - - .

3.2 Regional Trade Transportation Costs

Aggregated freight rates

T - ( ) (8.1) (8.2). F 8.1 - T 8.7. T F , fi . S , ( ) . I US 1676 TEU N US 110 TEU S L , P . S , N , I B US 193 TEU. P , US 718 TEU. T , I , N B US 1328 . N

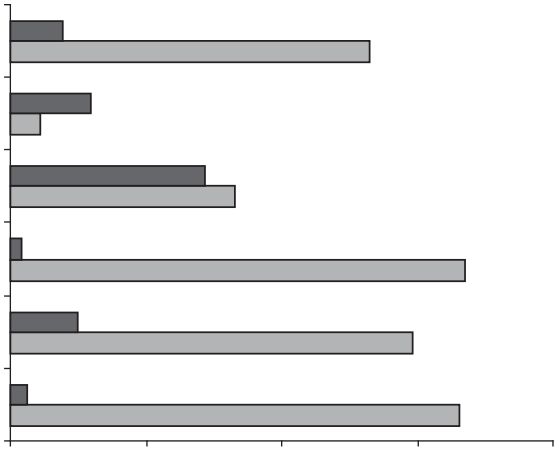


*Table 8.8 Estimated transportation costs, 2005 (% of import value)**

( ) T

C	B	I	N	P	S L	T
A	57.70	29.90	188.60	29.10	11.80	63.42
C	19.20	17.80	84.60	9.40	4.80	27.16
E	2.20	4.90	0.00	1.40	0.50	1.80
I	29.00	22.60	60.50	16.80	4.90	26.76
L	3.20	2.80	4.80	10.60	0.90	4.46
M	1.90	1.10	8.40	1.50	0.60	2.70
M	11.50	4.80	29.20	12.50	2.10	12.02
P	23.10	80.50	67.80	9.80	5.50	37.34
P	0.80	3.30	5.20	0.50	0.40	2.04
R	10.20	8.50	4.20	10.10	2.70	7.14
T	6.90	13.00	45.10	8.80	1.30	15.02
T	3.90	0.30	0.00	49.00	0.50	10.74
T	14.13	15.79	41.53	13.29	3.00	17.55

( ) I

C	B	I	N	P	S L	T
A	56.60	21.80	188.30	15.80	3.00	39.50
C	18.90	15.50	84.60	5.00	1.30	52.00
E	2.20	4.30	0.00	0.80	0.10	1.70
I	29.00	21.50	60.50	8.60	1.30	28.00
L	2.50	2.50	4.80	6.60	0.60	2.60
M	1.80	1.00	8.40	0.80	0.20	2.30
M	10.50	4.00	29.20	6.70	0.60	5.80
P	23.00	69.20	67.70	5.10	1.60	27.10
P	0.70	3.30	5.20	0.30	0.10	1.80
R	9.70	8.20	4.20	5.50	0.60	5.90
T	5.20	11.40	45.00	4.70	0.30	9.90
T	3.80	0.30	0.00	29.00	0.10	1.30
T	28.10	25.00	42.90	24.20	1.40	33.70

( ) I

C	B	I	N	P	S L	T
A	1.20	8.20	0.30	13.30	8.70	7.00
C	0.20	2.30	0.00	4.40	3.50	2.50

Table 8.8 ( )

( ) I

C			B	I	N	P	S L	T
E			0.00	0.60	0.00	0.70	0.30	0.20
I			0.00	1.10	0.00	8.10	3.60	1.60
L			0.70	0.30	0.00	4.00	0.30	0.60
M			0.10	0.00	0.00	0.70	0.40	0.20
M			1.00	0.80	0.00	5.80	1.50	1.00
P			0.10	11.30	0.10	4.70	4.00	3.70
P			0.00	0.00	0.00	0.20	0.30	0.20
R			0.50	0.30	0.00	4.60	2.00	2.00
T			1.70	1.60	0.10	4.10	1.10	1.40
T			0.10	0.00	0.00	20.00	0.30	0.60
T			1.00	4.20	0.10	21.00	3.70	4.60

Note: T S A

2005, F 8.2 *ad valorem* S A . T

1. T - *ad valorem* S L (3 2005) N (41.53 2005). N ,
2. T - I , S A S L , . A (63.42) S A , (1.80).
3. T *ad valorem* F , , N B . S , I - (80) S A . T - . P -S A

4. T *ad valorem* fl

Table 8.10 Estimated weight–value ratio (kg/US$) in 2005 by bilateral partners

E	I				
	B	I	N	P	S L T
B		2.195	0.252	0.015	0.613 3.075

I

2. N , I , B I , I S A . S I , -fi
, ,
, .

3. M , I , B N
(T 8.10). A , N ,
, , , B
I , T
I , N B ,
, -
R
fi T 8.6, fi
I B 2.5
1998 3.92 2005,
10.38 2002 16.80
2005.

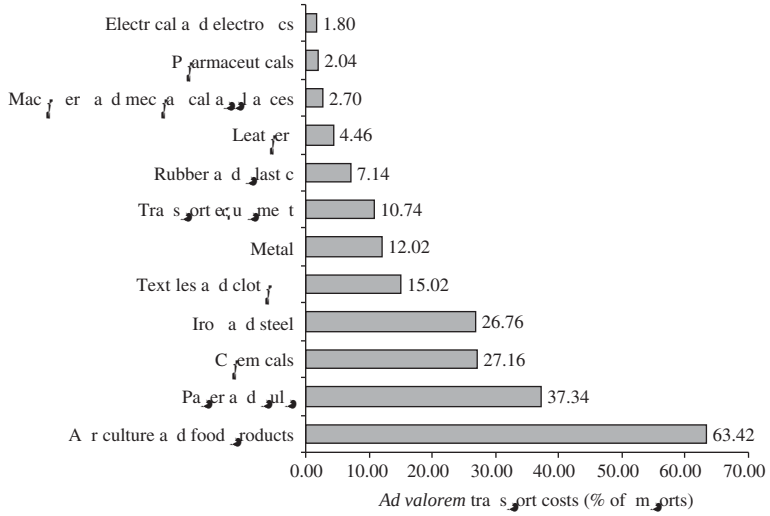
4. T , , S A .
A , S A
, -

5. T *ad valorem* -
ff, S A -
: ( ) B , I , ( )
I , S L , ( ) S L , I
I .

Table 8.11 Estimated bilateral total transportation costs in 2005

I	E	*Ad valorem* (%)	A (%)
B	I	30.50	39.54
	N	6.20	4.46
	P	17.40	15.64
	S L	20.70	18.56
I	B	29.40	15.87
	N	48.20	22.66
	P	45.00	24.35
	S L	11.90	23.29
N	B	81.90	9.05
	I	63.10	14.70
	P	24.10	10.40
	S L	18.80	15.43
P	B	21.10	6.58
	I	53.60	7.91
	N	16.60	6.83
	S L	15.60	6.58
S L	B	13.20	6.81
	I	5.00	9.20
	N	12.00	11.72
	P	5.90	3.76

Notes:
R
W - ff, WITS (2008).



Note: T SE A

Figure 8.3 Estimated transportation costs by commodity in 2005, as a percentage of imports

4. CONCLUDING REMARKS

T - SE A T SE A - T - (, N). O fi SE A T fi SE A T . CE SE A - . I fi , O , SE A -

NOTES

A A D B
I (ADBI) C C_ T C A , T C 25 26 J 2007.
T D H D
B S S A R . B R
. T fi
ADBI . T
T .

1. T S A -S A 6
2001.
2. SAFTA 1 J 2006 2016. SAFTA 5500 ff A G I , SAFTA -
US 6 2006 US 14 2010 (G I ,
2006).
3. S D 14 SAARC S , N D , 3 4 A 2007.
4. S , . ., P H (1993).
5. S , . ., W O (2007) D (2008),
6. E P , I S A ; I 73 S A (US 5.81 2006).
7. F , ASEAN , 20 , 5 1990 S A 5 , . T ; 5 2006 -
8. H , A , B M -S A , US 8.20 2006. T S A 10 (, , . ., T ., 2005).
9. S , . ., P (1999), S (2002), W B (2004), RIS (2004), USAID

D [illegible] I B [illegible].

17. S A T 8A.1, [illegible] fi [illegible]. I , COMTRADE [illegible] 2- HS . I [illegible] 4- HS [illegible]. S [illegible] [illegible]. T [illegible] fi [illegible] WTO' fi [illegible], [illegible] *Annual Report 2006*. W .
18. H , [illegible] B [illegible] H (2007).
19. S [illegible] S A ' [illegible] TEU A , [illegible] M S , [illegible] . S COMTRADE [illegible] TEU, [illegible] TEU. T [illegible] ' [illegible] M S G [illegible], [illegible] S V P , I [illegible] N [illegible] A [illegible] (PIANC), B M D [illegible], C [illegible] E S P L (CES), N D . T [illegible] 12 000 ≅ 1 TEU [illegible] 20- [illegible] ([illegible] FCL), [illegible] PIANC.
20. H S (2004) [illegible] 10 [illegible] 4 *ad valorem* [illegible].
21. T [illegible] . . . .

REFERENCES

A , S. E. G (2007), S A ' [illegible]: ', I S. A E. G ( ), *South Asia Growth and Regional Integration*, N D : M , . 3 42.

A [illegible], J. (2007), T [illegible] ', S. A E. G ( ), *South Asia Growth and Regional Integration*, N D : M , . 191 235.

B [illegible], D. D. H (2007), I ', [illegible] A ', [illegible]', F [illegible] C [illegible] I ', R [illegible] R T C [illegible]', [illegible] A D [illegible] B I (ADBI), T [illegible] 25 26 J .

D , S. S. P [illegible] (2006), [illegible], [illegible] I [illegible] [illegible] B ', *World Economy*, **29**(9), 1227 42.

D , P. (2005), C [illegible] S A ', *Contemporary South Asia*, **14**(3), 267 88.

D , P. (2007), F S A ', R C [illegible] E [illegible] C [illegible] SAARC: SAFTA B ', [illegible] RIS SACEPS, N D , 19 M .

D , P. (2008), R [illegible] S A : [illegible] ', *Man and Development*, **30**(1), 27 44.

D , P. B. B (2007), *Prospects of India–Bangladesh Bilateral Economic Engagement: Implications for South Asian Regional Cooperation*, D [illegible] P [illegible] 78, A D [illegible] B I (ADBI), T [illegible]

D , P. B. B (2007), *Deepening India–Bangladesh Economic Cooperation: Challenges and Opportunities*, D [illegible] P [illegible] 130, R I [illegible] S [illegible] D [illegible] C [illegible] (RIS), N D .

D , P. B. G Ł. (2006), *On Assessing Transaction Costs of Trade at Border: An*

APPENDI

Table 8A.1 Classification of commodity groups

C	2/4-HS (2002)	R
A	01 24, 50 53	T 4- HS
F	16 23	HS 01 HS 06
F	25 27, 44	T 4- HS,
		HS 45
C	28 36, 38	
P	30	T 4- HS,
R	39 40	HS 37
L	41 43, 64	
P	47 48	
T	54 63	T 4- HS,
I	72 73	HS 64 67, 71
M	68 70, 74 81	
M	82 84	T 4- HS,
		HS 8415, 8418,
		8471, 8473
E	85, 90, 91, 92, 95	T 4- HS,
E	8517 8548	HS 8415, 8418,
Offi		8471, 8473
E	8542	
T	86 89	
A	87	

Table 8A.2 Aggregated freight rates: 2005

( ) I

C	B	I	N	P	S L
	(US / TEU)				
A	1662	1350	1670	706	110
C	1662	1355	1681	656	110
E	1663	1318	1670	899	110
F ,	1662	1698	1670	890	110

Table 8A.3 Estimated weight–value ratio (kg/US$) in 2005

			B	I	N	P	S L
			(/US)				
A			1.17	3.88	2.38	3.64	1.06
C			0.36	1.25	5.12	1.01	0.09
E			0.02	0.05	0.00	0.00	0.01
F	,		0.88	2.63	3.49	2.66	0.77
I			0.14	0.25	0.52	0.08	0.54
L			0.00	0.01	0.00	0.06	0.64
M			0.02	0.00	0.07	0.00	0.01
M			0.09	0.19	0.10	0.02	0.05
P			0.04	0.20	0.42	0.00	0.06
P			0.00	0.00	0.06	0.01	0.01
R			0.14	0.10	0.01	0.32	0.08
T			0.15	0.61	4.64	0.06	0.55
T			0.04	0.00	0.00	0.31	0.03
			3.08	9.23	16.92	8.33	3.92

			B	I	N	P	S L
			(/US)				
A			4.40	2.96	10.27	2.09	1.71
C			1.78	0.43	0.29	0.09	0.19
E			0.01	0.07	0.00	0.00	0.01
F	,		0.87	5.18	0.00	1.19	0.05
I			0.53	0.39	0.14	0.11	0.10
L			0.00	0.00	0.00	0.00	0.00
M			0.00	0.01	0.00	0.01	0.00

I