

## INDONESIA MANUFACTURES: WOULD IT BE TRADE COMPETITION OR COMPLEMENT TO CHINA, JAPAN AND KOREA UNDER ASEAN PLUS THREE?

Rokhedi Priyo Santoso  
Universitas Islam Indonesia  
rokhedii@fe.uui.ac.id

### Abstract

*Free trade agreement of ASEAN Plus Three will effectively be implemented in 2010. The establishment of the free trade area will facilitate the realization of potential intra-trade as well as increasing competition of Indonesian products especially manufactures which are intensively traded with the Three. This paper is aimed at analysing the potential trade competition and trade complement of Indonesia manufactures to China, Japan, and Republic of Korea under that agreement. Manufactures data used are 3 digits SITC 6 between 1996 and 2006, inclusively. For that purpose, this paper employs an export similarity index (ESI) to identify competitive trade relation; and intra-industry trade index (IIT) to determine complementary trade relation. The main finding is that Indonesia and China has more competitive trade relation for all categories of manufactures. Both countries have greater similarity in their export structures than that of Japan and Republic of Korea. Conversely, Indonesian manufactures industries have higher complementary trade relation with Japan than with China or Republic of Korea. Thus, forming free trade area between ASEAN and the Three would bring potential competition challenge from China as well as opportunity of intra-industry trade expansion especially from Japan.*

**Keywords:** Trade Complementary, Trade Competition, Export Similarity Index, Intra Industry Index

### INTRODUCTION

ASEAN<sup>1</sup> Plus Three<sup>2</sup> is a multidimensional cooperation as a stepping stone to further establishment of full East Asian Free Trade Agreement (EAFTA) in 2016. For the ASEAN Five, the free trade agreement will effectively be implemented in 2010. This agreement will definitely have large impli-

cation on the trade compositions of the ASEAN members since the three recently forms 25% of total value of ASEAN trade. This share is equivalent to US\$ 355 billion.

As a member of ASEAN, Indonesia has strong and long trade relations with those three. In 2006, they constitute 37.5% of market share for Indonesian export commodities in which Japan was the primary market followed by China and Republic of Korea. Amongst the non-oil commodities, manufactures products are primary commodities most extensively traded with the

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<sup>1</sup> The ASEAN consists of Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Lao PDR, Myanmar, and Cambodia. The first five members are called ASEAN Five.

<sup>2</sup> China, Japan, and Republic of Korea

three. Moreover, manufactures are the main source of non-oil export revenue and also provider of large employment opportunities for long time periods.

In 1996 manufactures dominated export structure of Indonesia to China, Republic of Korea and Japan which accounted for 50%, 44%, and 40%, respectively. This dominance still occurred in 2001 even though its shares were significantly declining in those three markets. Recently, the manufactures are no longer the primary export commodity. Its importance has been surpassed by other sector which is crude materials, inedible, except for fuel. The export revenue share was left only around a half of that of in the last decade. The share in China plunged from 50% to 18%, while in Japan and Korea it dropped from 40% to 26% and 44% to 27%, respectively. It explains that there has been a large change in Indonesian export structure.

The establishment of free trade area with China, Japan and Republic of Korea is presumed to worsen the future performance of Indonesian manufactures export. Under EAFTA, tariffs will be removed up to 0% in 2010 between ASEAN and China, and Republic of Korea. With Japan, the tariffs will be eliminated in 2012. It means that in near future Indonesia manufactures will face potential competition within region. Currently, there are not many literatures specifically discussing the competition relationship between Indonesia and those three countries. Jin, et.al. (2006) reveal that free trading among China, Japan and South Korea results more trade diversion especially for high technology manufacturing commodities. In contrast, Tambunan (2005) argues that for ASEAN, the 'China treat' arises from labour intensive commodities in which China has resources abundant. Even though ASEAN will get benefits in inter-trade expansion but it costs of in intra-trade within ASEAN.

The removal of trade impediments, on the other hand, will also facilitate the full realization of potential intra-trade between Indonesia and China, Japan, and Republic of Korea. In context of free trade area, O'Callaghan and Nicolas (2007) say that the greater potential trade expansion will be obtained from the greater complementary trade relation amongst members. This complementary will enable to reallocate resources which in turn induce lower cost. Okuda (1994) finds that Indonesia and Japan has deepening interdependence measured by intra-industry trade index especially in machinery and transport equipments (SITC 7) such as general industrial machinery, office machines, electrical machinery and road vehicles. This interdependence, however, is still classified in low category compared to other ASEAN Five even though it is in high rise.

This paper aimed at analysing potential challenge and opportunity of Indonesian manufactures products under ASEAN Plus Three Free Trade Agreement. The potential challenge will be specified as a competitive trade relationship of products amongst countries. In specific, the paper will identify the Indonesian manufactures commodities that will face potential competition from China, Japan and Republic of Korea. On the other hands, the potential opportunity is characterized by the complementary trade relationship of manufactures commodities within region.

The organization of this paper is as follows: Section 1 is introduction and literature review. Section 2 provides the methodology and data followed by section 3 of manufactures trade relations between ASEAN and those three countries. Section 4 presents finding and analysis. After presenting the result and analysis in section 4, section 5 of the paper will conclude and give some policy implications.

## METHODOLOGY AND DATA

To address the problem, this paper employs two different methods, export similarity index (ESI) and intra-industrial trade index (IIT). The former is used to identify the trade competition relation amongst Indonesia and China, Japan, and Republic of Korea. The later is to determine the trade complementary relationship among those four countries.

### Export Similarity Index (ESI)

Export similarity index (ESI) is used to determine the competition trade relation amongst Indonesia and China, Japan, Republic of Korea. The ESI is the most common measure of similarity of two countries export commodities towards the third market. Finger and Kreinin (1979) introduced very simple calculation to measure the export similarity. Using the sum of smaller values of the two countries' share of all products to their total export towards the third market, this index only required common international trade data. The export similarity index ( $\pi_{jk}$ ) is formulated as follow:

$$\pi_{jk} = \sum_{i=1}^N [\min(S_{ij}, S_{ik}) \times 100]$$

Where,  $S_{ij}$  = country  $j$ 's export share of product of industry  $i$  to its total export in the third market,  $i = 1, 2, \dots, N$ .  $S_{ik}$  = country  $k$ 's export share of product of industry  $i$  to its total export in the third market,  $i = 1, 2, \dots, N$ .

This index is ranged from zero to one. The closer to zero the index, the more dissimilar is the structure of two country exports. Conversely, if the index closed to one, two countries will have similar export structure.

### Intra-Industry Trade Index (IIT)

In order to identify the complementary trade relation amongst Indonesia and China, Japan, Republic of Korea, this paper use intra-industry trade (IIT). IIT was firstly introduced by Grubel and Lloyd so that this index is well known as Grubel-Lloyd intra-industry index (GL index). The index measures the ratio of export value which is matched by its import to the total value of export and import for some commodity. The formula of GL index is as follows:

$$\beta_i = \frac{[X_i + M_i - |X_i - M_i|]}{X_i + M_i}$$

Where,  $X_i$  = value of export of product of industry  $i$ ,  $i = 1, 2, \dots, N$ .  $M_i$  = value of import of product of industry  $i$ ,  $i = 1, 2, \dots, N$

The index varies from 0 to 1. A commodity will have  $\beta_i$  equal 1 when its export is exactly equal to import. Conversely, the  $\beta_i$  will be 0 if there is only export but no import or vice versa. It means that two countries have complete specialization in a commodity. The higher is the  $\beta_i$ , the greater the intra-industry trade.

### Data

This paper uses 3 digits SITC data of manufactures industry from 1996 to 2006. The industry consists of 9 main commodities mostly traded between Indonesia and their three trade counterparts. The source of data is from United Nations Commodity Trade Statistics Database. Commodity code and description of data are described in Table 1.



**Table 1: Three Digits SITC 6 and Its Description**

Commodity Code	Commodity Description
612	Manufactures leather etc. nes
633	Cork manufactures
634	Veneers, plywood, etc.
635	Wood manufactures, nes
657	Special yarn, textile fabric
663	Mineral manufactures, nes
664	Glass
681	Silver, platinum, etc.
699	Manufactures base metal, nes

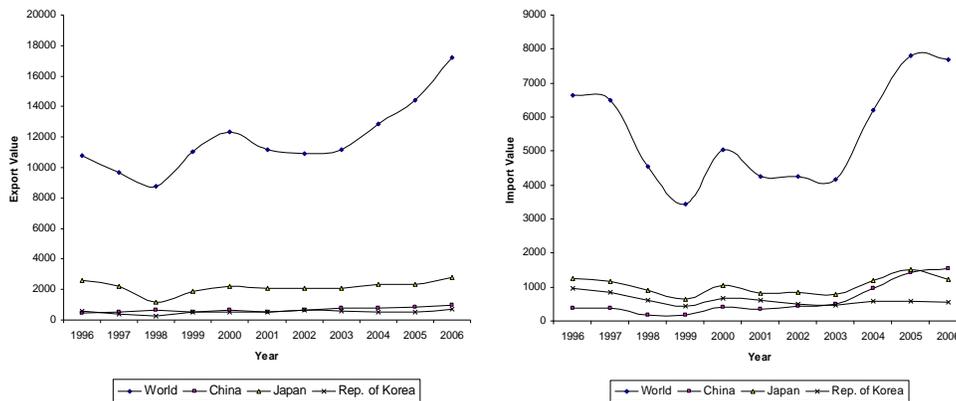
Source: uncomtrade

**Manufactures Trade Relations Between Indonesia and the Three**

In world market, Indonesia has experience growing manufactures export and bit fluctuated one for import. With China, Japan, and Republic of Korea, Indonesia export is relatively steady. There are only a little increase in Japan and China. However,

the import from Japan and China also increase in larger percentage, especially for China market. With Republic of Korea, the import is becoming less and less significant (Figure 1).

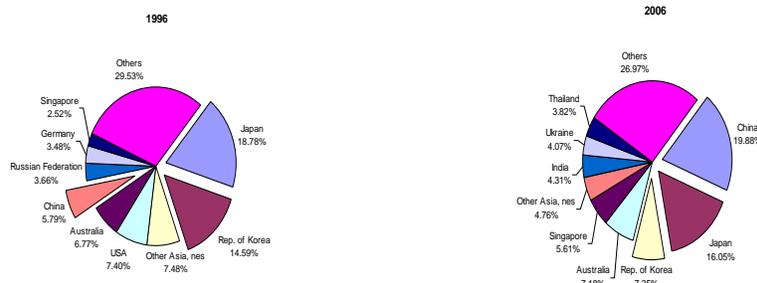
For Indonesia, China, Japan and Republic of Korea are the main export markets for Indonesian manufactures products. During the 1996 to 2006, Japan is the first main market even though its share has significantly decreased from 24% to 16.32%, respectively. As well as Republic of Korea, its share market share for Indonesian manufactures also reduced from 5.70% to 4.20% in the same periods. In 2006, this country was the sixth largest market compared to the fourth largest one in 1996. The increasing export market share is only for China. Its share is growing from 4.5% to 5.5% in 1996 and 2006, respectively. China has replaced the importance of Republic Korea's export market for Indonesian manufactures products (Figure 2).



**Figure 1: Export and Import Value of Indonesian Manufacture, 1996-2006 (US\$ million)**



**Figure 2:** Share of Primary Export Markets of Indonesian Manufactures, 1996 and 2006



**Figure 3:** Share of Primary Import Markets of Indonesian Manufactures, 1996 and 2006

On the other side, Indonesia is becoming more and more import dependence from China manufactures products. The magnitude is 350% more within only a decade that are 5.8% to 20% from 1996 to 2006. This amount took position of Japan and Republic of Korea import. Japan was no longer the first primary exporter of manufactures product for Indonesia. Indonesia import share was 18.8% in 1996 to 16% in 2006. As well as Republic of Korea, in 2006 its share was only a half of those in 1996 that was from 14.6% to 7.4%, respectively (Figure 3).

Indonesian is becoming less important as exporter of manufactures products to China. In 1996, its contribution to total China import on manufactures was still 2.05% or the largest eighth. The following five years (2001) was still in top ten in num-

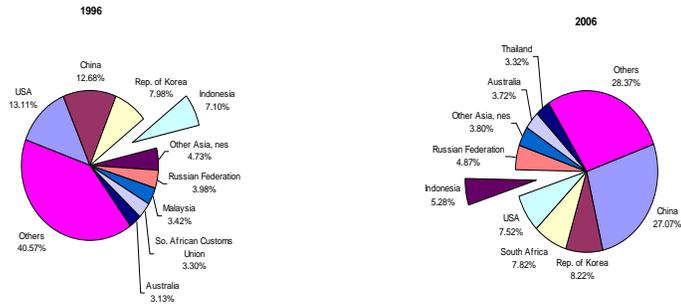
ber nine. However, in 2006 Indonesia was disappeared from the list of top ten. Its was only 1.34% of the total China manufactures import (Figure 4).

In Japan, however, Indonesia was still better than in China manufactures import. Indonesia was the largest fourth during period 1996 and 2001, but it also experienced a bit decreasing share from 7.10% to 6.91%, respectively. The next five year, its position was degraded to ranking five which was only 5.28% of total Japan manufactures import (Figure 5).

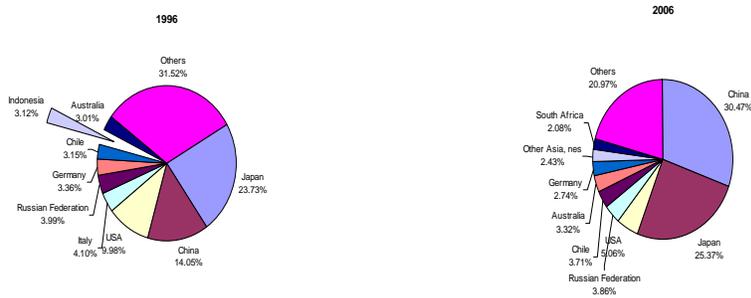
In Republic of Korea, Indonesia had the same story as those in two countries. The share of Indonesia manufactures to Republic of Korea decrease more than 100% during ten years period. In 1996, its share was still 3.12%, the it was only 1.55% in 2006 (Figure 6).



**Figure 4:** Share of Indonesian Manufactures Products in China Import Market, 1996 and 2006



**Figure 5:** Share of Indonesian Manufactures Products in Japan Import Market, 1996 and 2006



**Figure 6:** Share of Indonesian Manufactures Products in Korea Import Market, 1996 and 2006



## FINDINGS AND ANALYSIS

In general, the export structures of Indonesian manufactures are more similar to those of China than Japan and Republic of Korea. It means that the potential competition of Indonesian manufactures is definitely from China rather than from Japan and Republic of Korea.

Table 2 shows the results of export similarity index of manufactures between Indonesia and China, Japan, and Republic of Korea period 1996-2006. The average ESI between Indonesia and China is 0.38 which is considerably higher compared to that of Japan and Republic of Korea. With Japan,

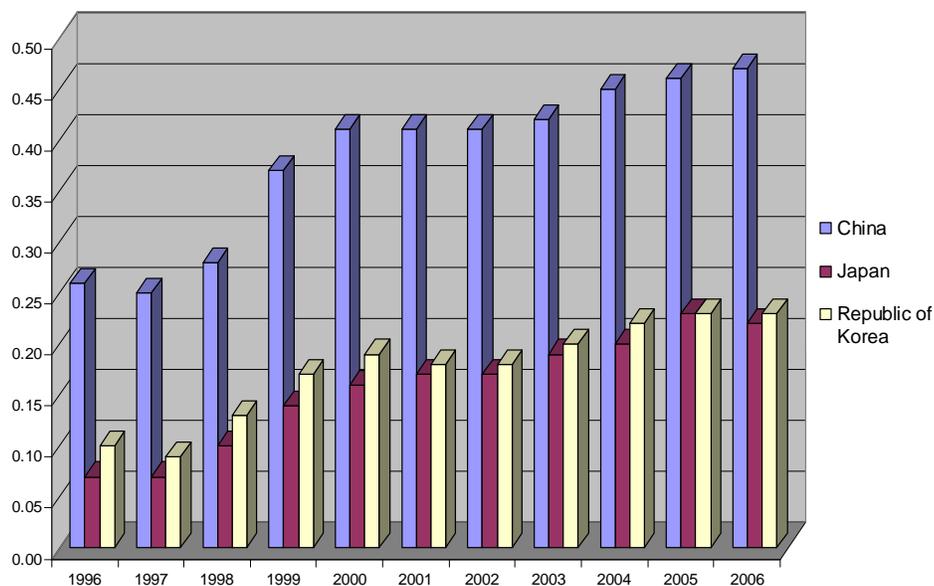
the ESI of Indonesian manufacture is quite low accounted for 0.16 which is quite similar to that of Republic of Korea (0.17).

In graph, the result is presented in Figure 7. It is obvious that there is an increasing trend in the export similarity of Indonesia manufactures with those three trading partners. The ESI of all Indonesia-China manufactures is much larger than that of Japan and Republic of Korea. It is accounted for two folds higher every year. Surprisingly, the ESI's of Japan and Republic of Korea never exceed those of China during the period of analysis.

**Table 2:** Total 3 Digits Manufactures ESI, 1996-2006

Year	Indonesia		
	China	Japan	Republic of Korea
1996	0.26	0.07	0.10
1997	0.25	0.07	0.09
1998	0.28	0.10	0.13
1999	0.37	0.14	0.17
2000	0.41	0.16	0.19
2001	0.41	0.17	0.18
2002	0.41	0.17	0.18
2003	0.42	0.19	0.20
2004	0.45	0.20	0.22
2005	0.46	0.23	0.23
2006	0.47	0.22	0.23
average	0.38	0.16	0.17

Source: own calculation



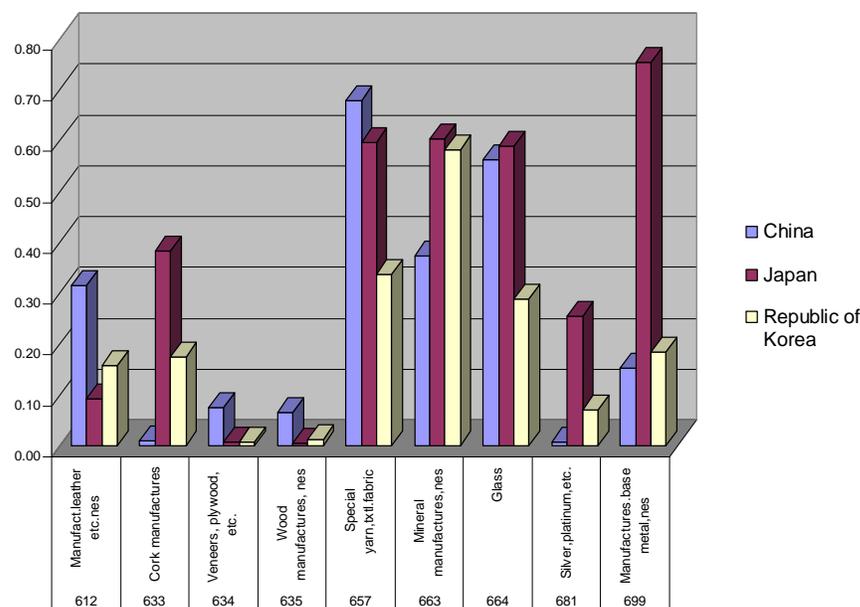
**Figure 7:** Total 3 Digits Manufactures ESI, 1996-2006

Appendix A presents the ESI of individual 3 digits of manufactures commodities amongst Indonesia and the Three. Between Indonesia and China, the most similar export structure of manufactures was mainly SITC 635 or wood manufactures commodities which were followed by SITC 634 (veneers, play wood, etc) and SITC 664 (glass). However the trend of similarity index of wood manufactures was relatively constant. Conversely, the other commodities like SITC 634, 657, 664, 699 and 657 showed significant growth of the index. It suggests that in future, these Indonesia manufactures commodities will potentially face the competition from China.

With Japan, the average of ESI manufactures is 0.16. Even though Indonesia had little similarity of manufactures export structure to Japan, the trend of the ESI is in increasing rate. While in 1996 its index was only 0.07, ten years later it increases

about three folds higher. It means that in the future is possible to be a potential competitor for Indonesia manufactures commodities. For individual commodity, Indonesian SITC 664 (Glass) has higher similarity of export to that of Japan. The similarity of this commodity as well as other commodities, SITC 657 (special yarn, textile fabric), 699 (manufactures base metal, nes) is in increasing rate.

The export similarity index between Indonesia and Republic of Korea is quite similar to that of Japan both the magnitude and its individual compositions. On average, the similarity index is 0.17. In 1996, the index was 0.10 while in 2006 it accounted for 0.25 or twice as much as that in 1996. If we look at the individual commodity, SITC 664 (Glass) has highest similarity than that of other product. Followed by SITC 657 and 699, the ESI of these two commodities were 0.042 and 0.029, respectively.



**Figure 8:** Average 3 Digits Manufactures IIT, 1996-2006

Potential gains through intra-industry specialization between Indonesia and the Three vary across industries. Figure 8 showed the average IIT of Indonesian manufactures indices across industries and nations. The IIT between Indonesia and China is high on SITC 657 (Special yarn, textile fabric) and SITC 664 (Glass). It means that Indonesian manufactures have greater opportunity to expand its trades with those of China rather than Japan and Republic of Korea. From the same figure we can also infer that China also dominated IIT in SITC 612 (Manufacture leather etc. nes), SITC 634 (Veneers, plywood, etc) and SITC 635 (Wood manufactures, nes) relative to those of Japan and Republic of Korea. Two commodities, Indonesian SITC 633 (Cork manufactures) and SITC 681 (Silver, platinum, etc) have very low IIT which suggest less opportunity of getting benefit from trading with China

Even though IIT of SITC 657 is high, it experienced a decreasing trend (Appendix B). For SITC 664, on the other hands, the indices were decreasing until the 2001 and then continued to increase. The consistent increasing rates of IIT occurred in SITC 634 and 635 during ten years period. It is an indicator for a further trade creation for these commodities between Indonesia and China.

While having low competition with Japan products, Indonesian manufactures have potential trade benefit with Japan from its larger potential market especially for SITC 699 (Manufactures base metal, nes). Other commodities which also have high IIT are SITC 657 (Special yarn, textile fabric), SITC 663 (Mineral manufactures, nes) and SITC 554 (Glass). The two other commodities which are SITC 633 (Cork manufactures) and SITC 634 (Veneers, plywoods, etc) have very low IIT. It suggests lower complementary trade relation of these com-

modities between Indonesia and Japan. From the individual IIT (Appendix B), it can be seen that almost all commodities have fluctuated IIT indices except for SITC 699. This commodity has a steady IIT during the last five years period.

Indonesia does not have much potential expansion in trading manufactures with Republic of Korea compared to the other two countries. The only one commodity which have higher and increasing IIT is SITC 663 (Metal manufactures, nes). Another industry that has increasing trends in IIT is SITC 657 (Special yarn, textile fabrics). The rest were varied even very low likes SITC 634 (Veneers, plywood, etc.) and SITC 635 (Wood manufactures, nes). For those reason the potential trade complement between Indonesian manufactures and Korea's is relatively lower than those of Japan and China.

## **CONCLUSION**

The export structure of Indonesia's manufactures is more similar to China than that of Japan and Republic of Korea. Indonesia and China, both produce low skill-labour intensive manufactures products in which China has comparative advantage of much cheaper labour costs. Thus, trade relation in manufactures between Indonesia and China is more competitive relation where China dominates competition for all categories of manufactures. While having higher competition, Indonesia does not have much potential gain from expansion of trading manufactures with China. It is only two out

of nine manufactures which have higher intra-industrial trade index, SITC 657 and SITC 664.

On the other hand, Indonesia may gain from intra-industry trade in manufactures with Japan since both countries have higher trade complementary relationship on these commodities. Indonesian manufactures could potentially complement Japan capital and technological intensive-manufactures industries. Industry categories likes SITC 669, SITC 663, SITC 657, and SITC 664 are manufactures industries that potentially have complementary trade relation between Japan and Indonesia.

With Republic of Korea, Indonesia has neither strong competitive or complementary trade relation in trading manufactures products. Both countries have very different export structures of manufactures industries where Korea's are much high skill labour intensive commodities while low skill labour intensive of Indonesia's. On the other hands, intra-industry trade between Indonesia and Korea is less developed compared to that of Japan and China.

In conclusion, free trade agreement between ASEAN and China, Japan, and Republic of Korea may bring stronger competition from China rather than from Japan and Korea. On the other hand, the agreement also brings opportunity for Indonesian manufactures to gain much from intra-industry specialization trade especially with Japan and less with China and Republic of Korea.

## Appendices

### Appendix A. Individual 3 Digits Manufactures ESI, 1996 – 2006

Indonesia-China										
Year	612	633	634	635	657	663	664	681	699	ESI
1996	0.00	0.00	0.03	0.16	0.02	0.01	0.02	0.00	0.01	0.26
1997	0.00	0.00	0.05	0.15	0.02	0.01	0.02	0.00	0.01	0.25
1998	0.00	0.00	0.03	0.17	0.03	0.01	0.02	0.01	0.01	0.28
1999	0.00	0.00	0.04	0.20	0.04	0.02	0.04	0.01	0.03	0.37
2000	0.00	0.00	0.04	0.21	0.05	0.02	0.05	0.01	0.03	0.41
2001	0.00	0.00	0.05	0.20	0.04	0.03	0.06	0.01	0.03	0.41
2002	0.00	0.00	0.06	0.19	0.04	0.03	0.06	0.00	0.03	0.41
2003	0.00	0.00	0.06	0.18	0.05	0.03	0.07	0.00	0.03	0.42
2004	0.00	0.00	0.09	0.16	0.05	0.03	0.08	0.00	0.04	0.45
2005	0.00	0.00	0.11	0.13	0.06	0.03	0.07	0.00	0.05	0.46
2006	0.00	0.00	0.13	0.12	0.06	0.03	0.07	0.00	0.05	0.47
average	0.00	0.00	0.06	0.17	0.04	0.02	0.05	0.00	0.03	0.38

Indonesia-Japan										
Year	612	633	634	635	657	663	664	681	699	ESI
1996	0.00	0.00	0.01	0.01	0.02	0.01	0.02	0.00	0.01	0.07
1997	0.00	0.00	0.01	0.01	0.02	0.01	0.02	0.00	0.01	0.07
1998	0.00	0.00	0.00	0.00	0.03	0.01	0.02	0.01	0.01	0.10
1999	0.00	0.00	0.00	0.01	0.04	0.02	0.04	0.01	0.03	0.14
2000	0.00	0.00	0.00	0.00	0.05	0.02	0.05	0.01	0.03	0.16
2001	0.00	0.00	0.00	0.00	0.04	0.03	0.06	0.01	0.03	0.17
2002	0.00	0.00	0.00	0.00	0.04	0.03	0.06	0.00	0.03	0.17
2003	0.00	0.00	0.00	0.00	0.05	0.03	0.07	0.00	0.03	0.19
2004	0.00	0.00	0.00	0.00	0.05	0.03	0.08	0.00	0.04	0.20
2005	0.00	0.00	0.00	0.00	0.06	0.03	0.07	0.00	0.05	0.23
2006	0.00	0.00	0.00	0.00	0.06	0.03	0.07	0.00	0.05	0.22
average	0.00	0.00	0.00	0.00	0.04	0.02	0.05	0.00	0.03	0.16

Indonesia-Republic of Korea										
Year	612	633	634	635	657	663	664	681	699	ESI
1996	0.00	0.00	0.02	0.02	0.02	0.01	0.02	0.00	0.01	0.10
1997	0.00	0.00	0.02	0.01	0.02	0.01	0.02	0.00	0.01	0.09
1998	0.00	0.00	0.03	0.01	0.03	0.01	0.02	0.01	0.01	0.13
1999	0.00	0.00	0.03	0.01	0.04	0.02	0.04	0.01	0.03	0.17
2000	0.00	0.00	0.02	0.01	0.05	0.02	0.05	0.01	0.03	0.19
2001	0.00	0.00	0.02	0.01	0.04	0.03	0.06	0.01	0.03	0.18
2002	0.00	0.00	0.01	0.01	0.04	0.03	0.06	0.00	0.03	0.18
2003	0.00	0.00	0.01	0.01	0.05	0.03	0.07	0.00	0.03	0.20
2004	0.00	0.00	0.01	0.00	0.05	0.03	0.08	0.00	0.04	0.22
2005	0.00	0.00	0.01	0.00	0.06	0.03	0.07	0.00	0.05	0.23
2006	0.00	0.00	0.00	0.00	0.06	0.03	0.07	0.00	0.05	0.23
average	0.00	0.00	0.02	0.01	0.04	0.02	0.05	0.00	0.03	0.17

Appendix B. Individual 3 Digits Manufactures IIT, 1996 – 2006

Indonesia-China									
Year	612	633	634	635	657	663	664	681	699
1996	0.00	0.00	0.00	0.09	0.17	0.09	0.87	0.00	0.11
1997	0.58	0.00	0.01	0.05	0.19	0.05	0.90	0.00	0.15
1998	0.00	0.00	0.01	0.04	0.98	0.53	0.67	0.00	0.22
1999	0.52	0.00	0.01	0.02	0.71	0.54	0.48	0.00	0.34
2000	0.33	0.00	0.02	0.02	0.98	0.43	0.31	0.00	0.21
2001	0.15	0.12	0.04	0.03	0.94	0.59	0.25	0.00	0.26
2002	0.99	0.00	0.05	0.04	0.84	0.54	0.41	0.00	0.06
2003	0.57	0.00	0.04	0.05	0.79	0.39	0.38	0.00	0.06
2004	0.00	0.00	0.11	0.10	0.73	0.35	0.31	0.06	0.08
2005	0.25	0.00	0.16	0.13	0.61	0.28	0.64	0.01	0.09
2006	0.09	0.00	0.38	0.15	0.53	0.31	0.97	0.00	0.11
average	0.32	0.01	0.08	0.07	0.68	0.37	0.56	0.01	0.15

Indonesia-Japan									
Year	612	633	634	635	657	663	664	681	699
1996	0.42	0.78	0.01	0.00	0.30	0.28	0.68	0.35	0.77
1997	0.00	0.26	0.01	0.00	0.16	0.12	0.39	0.07	0.43
1998	0.00	0.00	0.02	0.01	0.19	0.34	0.27	0.03	0.67
1999	0.31	0.25	0.01	0.00	0.31	0.41	0.33	0.69	0.94
2000	0.01	0.18	0.01	0.00	0.67	0.43	0.83	0.04	0.34
2001	0.01	0.49	0.01	0.00	0.95	0.93	0.87	0.12	0.69
2002	0.06	0.93	0.01	0.00	0.84	0.92	0.95	0.99	0.68
2003	0.03	0.19	0.01	0.01	0.93	0.93	0.60	0.42	0.90
2004	0.12	0.55	0.01	0.01	0.74	0.68	0.80	0.04	0.95
2005	0.04	0.25	0.01	0.00	0.81	0.64	0.37	0.01	0.95
2006	0.02	0.34	0.00	0.01	0.67	0.98	0.37	0.04	0.96
average	0.09	0.38	0.01	0.00	0.60	0.60	0.59	0.25	0.75

Indonesia-Republic of Korea									
Year	612	633	634	635	657	663	664	681	699
1996	0.00	0.00	0.01	0.00	0.02	0.12	0.85	0.00	0.09
1997	0.00	0.00	0.01	0.00	0.02	0.08	0.82	0.00	0.04
1998	0.00	0.00	0.01	0.01	0.04	0.01	0.32	0.00	0.08
1999	0.33	0.00	0.01	0.00	0.18	0.33	0.13	0.00	0.07
2000	0.05	0.00	0.02	0.01	0.24	0.64	0.11	0.03	0.08
2001	0.00	0.00	0.00	0.02	0.32	0.83	0.11	0.41	0.12
2002	0.42	0.00	0.01	0.00	0.39	0.92	0.05	0.01	0.25
2003	0.01	0.44	0.01	0.01	0.45	0.77	0.13	0.28	0.21
2004	0.27	0.47	0.01	0.04	0.51	0.78	0.22	0.00	0.23
2005	0.59	0.64	0.01	0.02	0.77	1.00	0.23	0.00	0.58
2006	0.07	0.37	0.01	0.01	0.77	0.92	0.18	0.06	0.27
average	0.16	0.17	0.01	0.01	0.34	0.58	0.29	0.07	0.18

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