

THE CONTAGION EFFECT OF GLOBAL FINANCIAL CRISIS AND CLUSTER OF INDONESIAN EXPORT

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Abstract: *Greek debt crisis, June-July 2015, has been reported by many media. IMF and European countries are very busy to face that crisis. Every country in the world worries about a crisis, including financial crisis. The crisis which happened in one country can affect other countries. This paper analyzes ten Indonesian export commodities before and during financial crisis. In relation to the crisis, the question is that the crisis is a contagion effect on the commodities? Moreover, this paper is also clustering the commodities. This paper concludes that the crisis does not affect those commodities. It means that there are no differences between value of export before and during the crisis. Furthermore, this paper argues that there is an enough argument for clustering that the ten export commodities are superior. It also that using the cluster is only appropriate for "unidentified distance" clearly and contagion effect is not useful for indirect effects. This paper, then suggest that the Government of Indonesia is advisable to maintain and develop exporters to export that products, including exporters of SMEs and it should not too worry about the crisis. So that product quality can have an international reputation. Indonesia is also suggested to build a network in the provinces in Indonesia or regions to develop professionalism exporters.*

Keywords: *Export commodity, financial crisis, contagion effect, and hierarchical cluster.*

1. INTRODUCTION

In September and October 2011, many media reported about an economic crisis. On June and July 2015, many media has been reported debt crisis in Greek. Especially European countries, they worried about the crisis. The term "crisis" is narrated differently. There are many terminologies the crisis. There are a single crisis, global crisis, global financial crisis, the world economic recession, global economic crisis, the debt crisis, the European financial crisis, Euro-zone crisis, global financial crisis, and so on. Because of variations in the use of the term, in this study, this paper uses the term of "global financial crisis".

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Global financial crisis, initiated by the subprime-mortgage problem, or issue mortgage defaults that occurred in the United States in mid-2008. The problem, then, the effect is contagious, which is known as a "contagion". Robert W. Kolb (2011) narrated that in economics and finance, a contagion is a situation where a shock in a particular economy or region spreads out and affects others. In addition, Kennerth A Reinert and Ramkinshen S. Rajan (2009) informed that in economics, contagion refers to the spread of a crisis from country to others. The World Bank (Nuning, 2011) defined three types of contagion. First, as a surprise, contagion transmitted through the cross-border due to a reciprocal relationship between several countries. Second, a contagion, as the transmission of the shock, transmitted through the cross-border, that occurred through few fundamental channels. Third, relate with a contagion phenomenon, when the correlation between countries increased during the crisis period than normal period.

Solihin M. Juhro (2011) mentioned that during the crisis, the world is still colored by a variety of negative sentiment. The negative sentiment indicated by five things: (1) Decrease in credit rating two major French banks, namely *Credit Agricole*, and *Societen Generate*, the high exposure to Greek debt, (2) Statement Greece will exit the Euro which will add global concerns, (3) IMF lowers global growth forecast from 4.0% to 4.4% in 2011, (4) downgrade of Spain and Italy, and (5) the Federal Reserve's statement that the US economy grew slower and policy "operation twists" by the Fed to buy long-term tenor with sales short-term maturities, which is doubted by market participants that the policy will not be able to reduce unemployment.

The global financial crisis is likely to continue for the foreseeable future. Furthermore, Solihin M. Yuhro (2011) identified that the fiscal and debt crisis in Europe, and the US, tend to be protracted, and completion is expected to take a long time. This will result in a decline in the economic outlook in Europe and the US, and it is predicted to trigger turmoil in global financial markets. Is the global financial crisis will have an impact on the Indonesian economy and what is done by Indonesia to face the crisis?. In addition, Solihin M. Juhro (2011) said that amid the global economic slowdown and the prolonged European debt crisis, the Indonesian economy showed strong resilience. In addition, among others, said that economic growth in 2011 will reach about 6.6%, which is supported by exports and investments that grow quite tall. Steps taken by the Government of Indonesia include conduct of monetary and macro-prudential policy mix for minimize potential decline in

Indonesia's economic performance, to keep inflation around 6% in 2011 and around 4.5% in 2012.

Global financial crisis, in essence, has an impact through two channels, namely, trade and financial channels (Nuning, 2011). The series of the crisis is on: (1) a decline in GDP, (2) inflation, (3) the external sector, and (4) monetary and financial sector. Trade channel is predicted to bring Indonesia entered in a prolonged global financial crisis. Through the trade channel, Indonesia export commodities, oil and non-oil and gas to a number of countries in the world. One group of non-oil commodities are 10 leading export commodities.

Two years before the crisis, in 2006, the Indonesian export increased (kemendag.go.id, 2011). Value of non-oil exports accounted for 82.23% of total exports in 2010. From the non-oil export commodities, there are 10 major export commodities. Contribution of the 10 major commodity exports in 2010 amounted to 32.09% of total exports, and accounted for 47.54% of the total value of non-oil exports. Thus, the role of the 10 main export commodities is very strategic. So that exports 10 commodities can withstand and avoid a crisis, or at least minimized the impact of the crisis. It needs some strategies to minimize the barriers to export growth in the global market.

Besides external factors, namely the global financial crisis, in general, there are seven internal factors why export performance often experience obstacles, namely 1. economic factors, 2. management weaknesses, 3. difficulty in finding qualified human resources, 4. weakness of competitiveness, 5. economies of scale are weak, 6. government regulation / lack of support, and 7) weaknesses in the financing (Nuning 2011). Therefore, in order to face the crisis, some strategies are needed in order to avoid non-oil exports from the crisis.

Factors analyzed in this study are based on economic factors (factor 1, the performance bottleneck exports), which is described by the financial crisis, and growth factors (factor number 4), which reflects the competitiveness of the commodity. Thus, this study focuses on economic factors and determinants of competitiveness for the 10 commodity exports, with the consideration that external factors closely related to the global financial crisis that is going on. Selected growth factors as well as the focus of study with consideration of export activity associated with the global financial crisis through the trade channel instrument.

Based on the classification by the Ministry of Trade of Indonesia, there are ten Indonesian export commodities. They are textiles and textile products (TTP), electronics, rubber and rubber products, palm oil, forest products, footwear, automotive, shrimp, cocoa, and coffee. Tenth of these products are exported to several countries in the world. Issues raised in this study are among the ten products: 1) Where are the products that are as a focus for Indonesia in facing the crisis, (2) How to cluster the 10 export destinations for commodities export before and during the crisis.

2. THEORY

There are several factors that led to the financial crisis. Gersi (2005) mentioned that the factor that caused the financial crisis is the contagion factor. While Evans et al. (IMF Paper Number 192), said that from the macro side, the financial crisis occurred because the financial system is compromised system stability. Things that affect the stability of the financial system are economic growth, balance of payments, inflation, interest rates and exchange rates, and the contagion effect. Thus weakening economic growth rate is one indicator of the crisis.

Frame of the impact of global economic turmoil described by M. Solihin Juhro (2011). Within the framework, there are risk factors, channel, impacts, and policy responses. Four risk factors, namely global conditions and contagion, the potential reversal of capital, excess domestic liquidity, and fiscal stimulus, then the impact through the trade channel and financial channel. The channel through the crisis affected the decline in GDP, inflation, the external sector, and monetary and financial sectors. The impact can be reached through the mix of monetary and macro-prudential policies, strengthening of the financial framework of monetary stability through Crisis Management Protocol, and fiscal policy. Furthermore, Juhro (2011) narrated that with the global financial crisis, exports and imports of all countries declined against the US and European markets, although the total impact is relatively small. Further said that with the global financial crisis, commodity exports will increasingly concentrated into natural resource-based commodities.

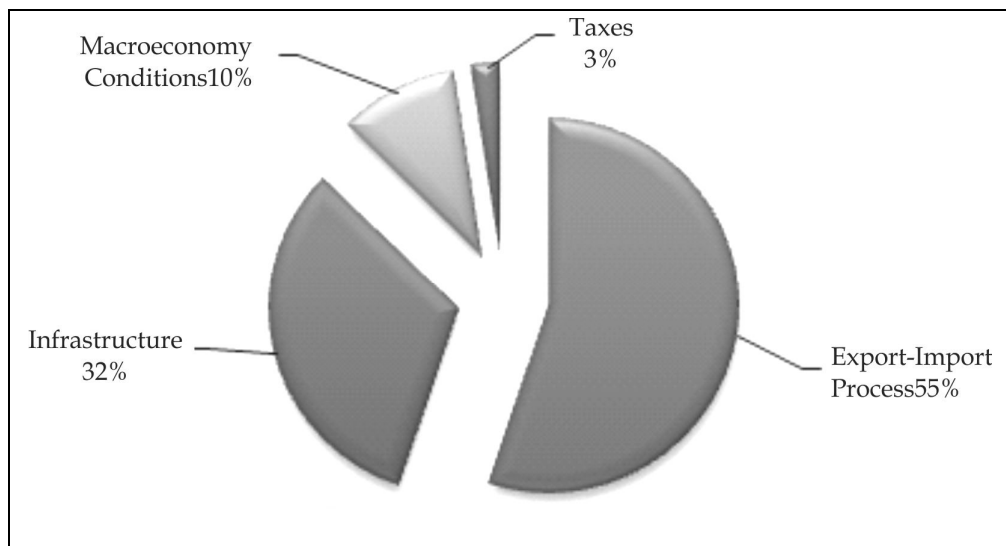
In general, Porter (1993), said that the export competitiveness is determined by a country's competitive advantage. The advantage is determined by four main determinants: (a) the condition of the resources, the resources owned by the state, and consists of five categories: human resources, natural resources, the resources of science and technology, resource capital, infrastructure and resources, (b) the demand in the

domestic market; (c) the structure of a strong domestic industry, especially related industries and supporting industries, and (d) free competition market structure.

Schwab (2013) informed that there are 12 (twelve) pillars of competitiveness, namely: institutions, infrastructure, macro-economy, health and primary education, higher education, goods market efficiency, labor market efficiency, financial market, technological readiness, market size, business sophistication, and innovation. The 12 pillars are basically classified into 3 groups of pillars, namely: those basic requirements, efficiency of the support group, and the group of innovation and business sophistication.

More details, resource conditions referred by the Porter (1993), implemented in the survey results of the University of Indonesia, namely LPEM, into 200 companies in five (5) Indonesian cities is shown in figure 1. The survey results showed that export facility will play an important role in improving the competitiveness of foreign trade

Figure 1: Important Factors Affecting the Export Competitiveness



Source: LPEM UI

Further illustrates that the process of export and import in Indonesia affected by export processing time (14.34%), export procedures (15.77%), import procedures (10.99%), import processing time (10.33%), the cost of exports (2.06%), and the cost of imports (1.66%). Export performance in the context of economic sciences, interpreted quantitatively. Cavusgil and Zou (1994) defined exports as assessed in relation to the extent to which firms

achieve their export objectives. Meanwhile, Shoman (1996) placed export performance as a dependent variable that is affected by a number of factors.

Definition of main export performance, or often said as the superior export performance, has been widely publicized. The Ministry of Trade of Indonesia, classifying non-oil commodity exports into ten commodities seeded Indonesian exports. The ten non-oil commodity exports are textile, electronics, forest products, rubber, oil palm, cocoa, coffee, shrimp, footwear, and automotive. However, there is no literature why the government of Indonesia established 10 leading commodities.

3. METHODS

This study uses secondary data of ten export commodities from 10 January 2006 to July 2011, with consideration of the crisis in July 2008. So that, the data include the export data before the crisis, that is from January 2006 to June 2008, and during the crisis, namely July 2008 to December 2010. It means 30 months before and 30 months during the crisis. Data from January to July 2011 are used to provide current conditions. All data were obtained from the website of the Ministry of Trade and The Center Bureau of Statistic of The Republic of Indonesia. The data is then calculated changes from month to month. Growth for each of the export commodities are then connected with the export value achieved.

The export countries destination analyzed by using a matrix that connects between the growth rate and the value of exports. An aggregate matrix is also used to provide the aggregate picture of the situation of ten export commodities Indonesia. Data analysis is a hierarchical clustering using single linkage and analysis cross tabulation using the Excel, and SPSS software. The hierarchical clustering is basically how the data should be grouped into clusters. Moreover, the hierarchical clustering using single linkage means that the distance between two groups is the distance between their two closest members. It is also called as minimum distance criterion (Everitt, S. Brian and Sabine Landau: 2011). The distance equation is:

$$d_{km} = \alpha_i d_{im} + \alpha_j d_{jm} + \beta d_{ij} + \gamma |d_{im} - d_{jm}|$$

m = any cluster other than k

d = $|d_{im} - d_{jm}|$ = distance between two groups

k = merge clusters i and j

$\alpha_i = \alpha_j = 0.5$

$\beta = 0$

$\gamma = -0.5$

Furthermore, the “dendrogram” is used to clarify the process of the hierarchical clustering. In addition, regression methods are also used to cluster each of the ten commodities toward its total export. The regression equation is

$$Y = \alpha_0 + \alpha_n X_n + \varepsilon$$

Y = total of the commodities

X = the commodities

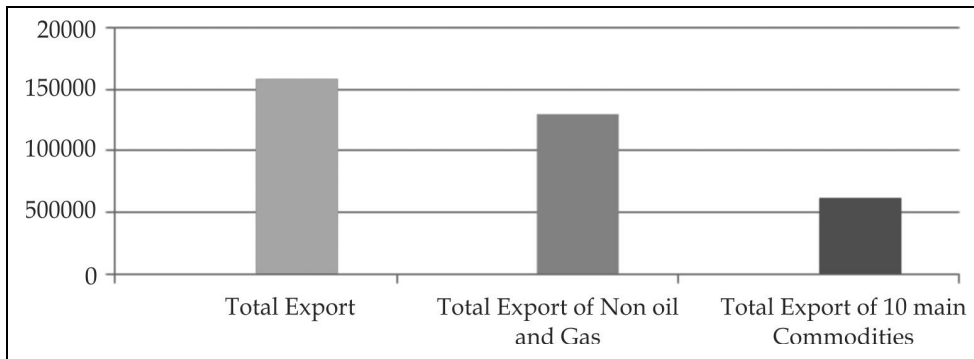
n = 1, 2, ..., 10

ε = disturbance error

4. RESULTS AND DISCUSSION

Indonesia's non-oil export in 2006 was US\$ 79,589.10 million, or 78.99% of Indonesia's total exports. In 2010, Indonesian non-oil exports increased to US\$ 129,739.50, or an increase of 63.01% over 2006. The value of exports in 2010 amounted to 82.23% of Indonesia's total exports. Thus, the value of Indonesia's non-oil exports tend to rise from year to year, and occupies a dominant share of the total exports of Indonesia, as seen in Figure 2.

Figure 2: Total Exports, Total Exports of Non-Oil& Gas, and Total export of Ten Commodities (US\$)

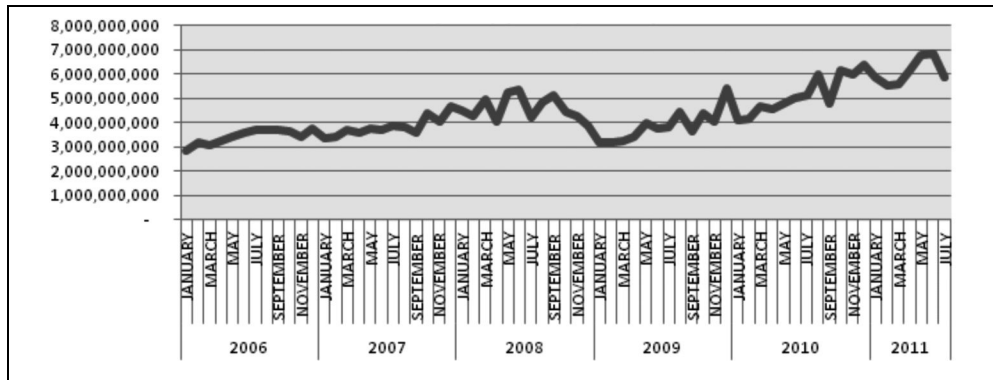


Source: The Ministry of Trade of Indonesia, processed by author.

Figure 3 shows that the total value of Indonesian exports, before the crisis, is likely to increase over time, as well as the value of total exports during the crisis (until December 2010), but declined in 2009. Value of non-oil exports before and during the crisis also increase from time to time, except in 2009 which tends to decrease.

Total export value of the ten commodities Indonesia during the period of January 2006 to July 2011 shows an increasing trend, as seen in Figure 3.

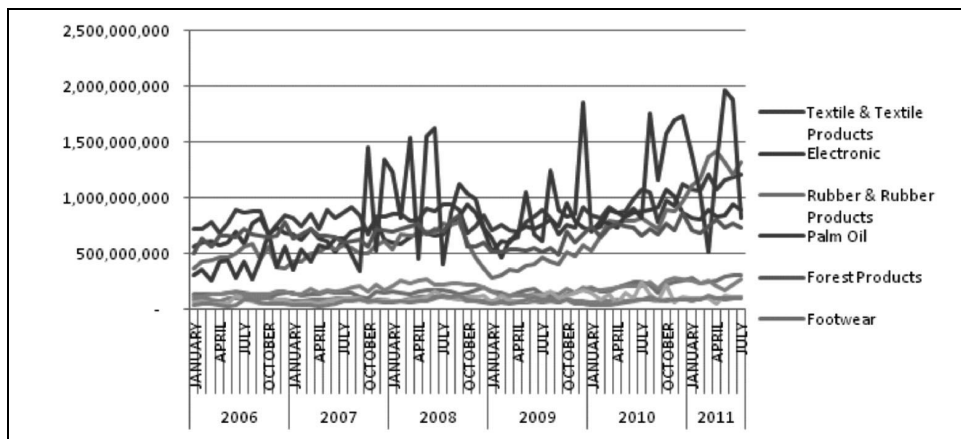
Figure 3: Total Value of 10 Commodity Exports (US\$)



Source: Ministry of Trade of Indonesia (2011), processed by author.

The 10 major commodity exports increased from time to time, in 2010 as well as in 2011. However, some commodities export showed an increase rather sharply. Figure 4 illustrates the value of commodity exports which classified into type of commodity.

Figure 4: The Top 10 Commodity Exports (Jan 2006 to July 2011, in US\$).



Source: BPS (2010) and the Ministry of Trade of Indonesia (2011), processed by author.

Figure 4 and table 3 show that there are two categories of commodities. The first category, the value of exports grew significantly and, in the second category, the value of growth its export ramps. The first category, there are five commodities, export growth trend which has increased significantly. The commodities are textile, electronics and electrical, rubber and rubber products, palm oil, and forest products. While in the second category, that is five other commodities, namely footwear, automotive, shrimp, cocoa and coffee are experiencing growth ramps. However, the oil commodity

fluctuates very sharply, and tends to increase. So that, the commodities can be classified into two clusters, as follows:

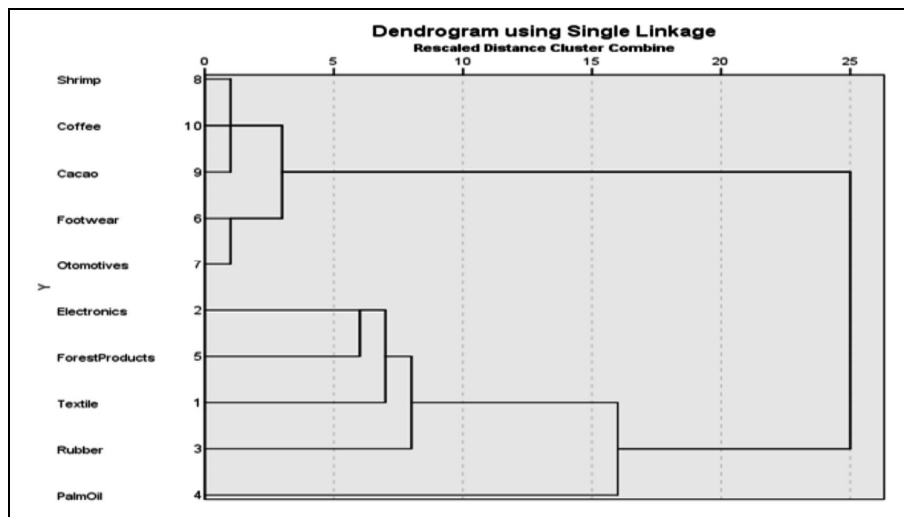
Table 3.
Cluster Membership of 10 Export Commodities

Cluster Membership	
Case	2 Clusters
Textile	1
Electronics	1
Rubber	1
PalmOil	1
ForestProducts	1
Footwear	2
Otomotives	2
Shrimp	2
Cacao	2
Coffee	2

Source: Secondary Data (BPS) analyzed by author

Table 3 shows that basically there are two clusters of the ten export commodities. It means that grouping of the commodities by the government is a weak of argumentation. This is because the value of export between the first and second cluster is strongly big different. So far, there is no literature for grouping the commodities into 10 commodities. Moreover, those commodities, in detail, can be drawn into the dendrogram as follows.

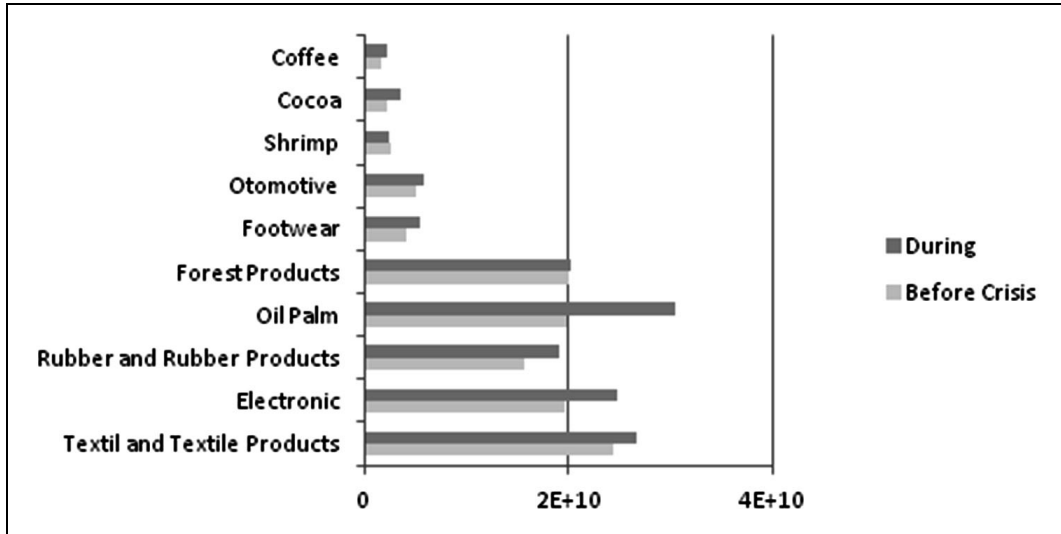
Figure 5: Dendrogram of 10 Export Commodities Using Single Linkage



Source: Secondary Data analyzed by author

Figure 5, as well as table 3, indicates that the first export commodities, namely scrimp, cacao, coffee, footwear, and automotives products, are totally different with the second one, that are electronics, forest products, textile, rubber, and palm oil.

Figure 6: The Top 10 Export Commodities Before and During Crisis (US\$)

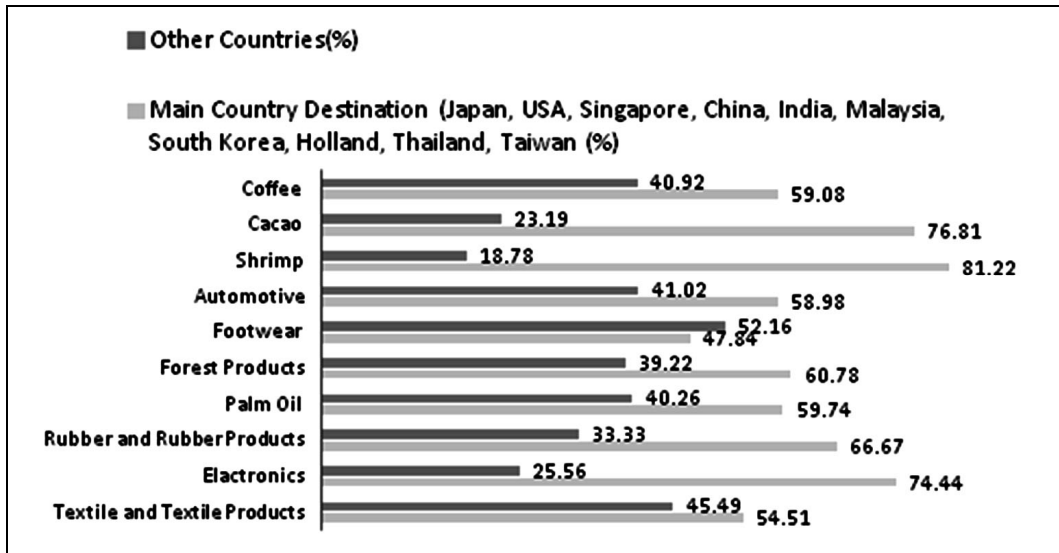


Source: The Ministry of Trade of Indonesia, processed by Author

Figure 6 shows that the total value of exports for each of the 10 commodity exports, during the global financial crisis, are bigger than before the crisis. In terms of export value improvement 30 months prior to the crisis, and 30 months during the crisis, it can be seen that the rate of growth of 10 main export commodities showed an increase during the global financial crisis, compared to before the crisis, except shrimp commodities and forest products. In total growth of 10 commodities, during the crisis, is also greater than the growth during the global financial crisis.

When viewed from the export destination, it appears that the market share of the ten export destinations for Indonesia's main export commodity is ten countries to Japan, USA, Singapore, China, India, Malaysia, Korea, the Netherlands, Thailand and Taiwan, as apparent in Figure 7.

Figure 7: Market Share 10 Featured Commodity Exports (%)



Sources: BPS (2010), The Ministry of Trade in 2011, treated by author

From figure 6, it can be seen that the distribution of export destination countries are already reaching many countries. This means that 10 Indonesian export commodity has been known in the world market. However, because the share of the commodity market is concentrated in 10 export destination countries, namely Japan, United States, Singapore, China, India, Malaysia, Korea, Netherlands, Thailand, and Taiwan, so that, the commodity markets tend to be concentrated to those countries.

Commodity market share of textile and footwear seem more spread to various countries of export destination, although still concentrated in 10 countries. Commodity shrimp, electronics, and cocoa are highly concentrated in 10 countries. When viewed from the export destination, it appears that the ten export destinations for Indonesia's main export commodity is the tenth country to Japan, USA, Singapore, China, India, Malaysia, Korea, the Netherlands, Thailand and Taiwan. When broken down to 5 commodities, and 5 major export markets, commodity markets TPT concentrated in the United States (40%) followed by the market to Japan, Germany, Turkey, South Korea and UK. For electronic commodity market is concentrated in Singapore (27%), the U.S. market (14%), Japan (11%). For electronic commodities, the export market is concentrated in the U.S. market (25%), followed by China (16%), Japan (10%), Singapore (5%) and India (4%). Commodity export markets appear concentrated in India (34%), China (15%), Malaysia (9%), the Netherlands (8%) and Italy (4%). To market forest

products, appears to be more diffuse, i.e. to Japan (18%), China (13%), United States (10%), South Korea (7%) and Malaysia (4%).

Table 4.
Five Export Commodities and the Sequence of Export Destination

Five Main Export Commodities	Sequence of Country Destination				
	1	2	3	4	5
Textile and Textile Products	USA	Japan	Germany	Turkey	South Korea and UK
%	40	6	6	5	@5
Electronic	Singapore	USA	Japan	Hongkong	South Korea and Malaysia
%	27	14	11	6	@4
Rubber	USA	China	Japan	Singapore	India
%	25	16	10	5	4
Palm Oil	India	China	Malaysia	Holland	Italy
%	34	15	9	8	4
Forest Products	Japan	China	USA	South Korea	Malaysia
%	18	13	10	7	4

Source: Ministry of Trade of Indonesia, processed by Author

It seems that average value of 10 commodities increase in growth after the financial crisis. With benchmark of global financial crisis occurred in July 2008, the average growth in the value of exports of 30 months before the crisis, and 30 months during the crisis, seems there is no difference. Thus 10 Indonesian export commodities are not affected by the global financial crisis.

Evident is also indicated that the total of each of the 10 main export commodities, are getting better, despite the global financial crisis. All commodities in total, except for commodity shrimp, experienced an increase compared with the value before the crisis. Oil commodities recorded the greatest increase followed commodity electronics, rubber, textile, forest products and commodities. The only commodity exports declined during the crisis is a commodity shrimp.

Result also shows that the Pearson correlation between before and during the crisis is 0.930. It illustrates a very strong correlation between before and during the global financial crisis. In other words, if the value of

commodity exports 10 before the crisis tended to rise, then the value during the crisis has also tend to rise. Looking at the error rate, it shows that there is no difference before and during the global financial crisis.

Judging from the export destination for 10 major commodities, it appears that commodity textile exported to 241 countries, followed by forest products, automotive, electronics, footwear, rubber, shrimp, palm oil, cocoa, and coffee. From the range of export destinations, it appears that 10 Indonesian export commodity has been known in the world market. However, the market leading of 10 commodities is concentrated in 10 countries. They are Japan, USA, Singapore, China, India, Malaysia, Korea, Netherlands, Thailand and Taiwan.

Result also indicates that the first commodity, namely textile, electronics, forest products, footwear, and automotive, have export markets wider than the export markets for both commodities such as rubber, palm oil, shrimp, cocoa, and coffee. Thus exporter for the first commodity group more experienced entering the export market some commodity groups compared to the second one. Looking at the level of the relationship between the number of export destinations and export value, it appears that the relationship is not significant. The number of the destination country does not correlate with the value of exports achieved. It is only 37.8% of 10 commodity exports can be explained by the number of export destinations.

Because the value of commodity exports and number of 10 export markets are not correlated significantly, it means that the number of export destinations do not reflect the value of exports. Another fact that can be revealed is that 10 primary commodity exports are concentrated to a few countries. Moreover, grouping leading export commodity into 10 commodities is not appropriate, with considering that there are only 5 commodities exports contributing significantly to the value of total exports 10 commodities. On the other hand, it is not found or there are no references why the Government of Indonesia grouped those products into 10 commodity set. From those 10 export commodities, there are only five commodities, namely textile, palm oil, electronics, forest products, and rubber, that contributing significantly to the total value of commodity exports.

The fifth significant commodities affect the total value of commodity exports. Trends of greatest contribution to total exports of 10 main commodities are Textile and Textile Products. While that commodities which have contributed to the lowest impact is rubber product. The order effect on

total exports of 10 main commodities during 67 months is a commodity textile, electronics, forest products, oil, and rubber. Mathematically, it can be formulated as follows:

$$\text{Ten Com} = 1.813 \text{ TTP} + 1.029 \text{ Palm Oil} + 1.303 \text{ Electronic} + .063 \text{ Forest Product} + 0.878 \text{ Rubber (1)}$$

T	13.188	37.357	11.929	6.68	12.229
Sig	0.00	0.00	0.00	0.00	0.00

The second five commodities that influences the total value of export commodities, it can be seen that only automotive commodities that contributed significantly to the value of 10 commodity exports. However, the growth rate of the value of commodity exports in the low category. Thus, there are four commodities, namely footwear, cocoa, shrimp and coffee which was not a significant effect on the total value of 10 leading export commodity. A equation can be formulated as follows:

$$\text{Ten Com} = 15.289 \text{ Otomotive} + 2.625 \text{ Footwear} + 1.612 \text{ Cacao} - 1.015 \text{ Shrimp} + 5.579 \text{ Coffee (2)}$$

t	5.088	.992	1.004	-.101	1.526
sig.	0.00	.332	.326	.921	.141

The findings show that the number of export destinations is not correlated with the acquisition of the export value. Therefore, multiply the geographical markets of export destinations is not a viable alternative selected. Determining strategy and enlarge the right market segments in export destination countries are already there is an option that is more useful in improving the performance of national exports. Thus, strategies to encourage increased 10 main export commodities are: 1. increasing exports of products of added value, based on natural resources, and high demand. Therefore, the development of export products during the global financial crisis, future focused on natural resource-based commodities, textiles and textile products, leather products and footwear. 2. Encourage efforts to diversify export markets to reduce reliance on certain export markets; 3. Focus on efforts expansion of market access, promotion, and facilitating exports 10 commodities exports in the region, for example, Asia and Africa.

Priority focus increased diversification of export markets, is a priority of the activities supported by: a. institutional quality improvement and export promotion; b. market and product development in export markets; c. market and product development, d. HRD export, e. increase role of international

trade and diplomacy skills; f. increase regional cooperation and bilateral negotiations. Focus priority to improve the quality and diversity of export products, are activities that are supported by: a. increased Supervision and Quality Control of Goods, b. Standardization development for Trade, c. enhanced cooperation in the area of trade in services; d. market and product development, e. improved coordination and development of exports. Priority focus increased export facilitation, which is supported by the following priority activities: a. management of export and import facilitation, b. increased security and protection of market access; c. support the development of the trade sector special economic zone.

Problems, findings, and alternative solutions, in general, can be presented in the table as follows

Table 12.
Problem Formulation, Findings, and alternative solutions

<i>Problem Definition</i>	<i>Finding</i>	<i>Alternative Solutions</i>
How is relationship between 10 main export commodities and countries destination before and during crisis	It cannot be found that there is no relationship between 10 main export commodities and countries destination before and during crisis	<i>Market development</i> outside countries of Japan USA, China, Malaysia, India, South Korea, Holland, Thailand and Taiwan by reducing level of dependency and minimizing effects of the crisis
How is cluster of country destination for 10 main export commodities before and during the crisis	Ten main export commodities concentrated in 10 countries. From those countries, value of export for the commodities concentrated at USA, Singapore, China, Japan and India	<i>Market penetration</i> to five second big country destination for existing market
	Growth and value of export of shrimp and footwear are in low category	<i>Product development</i> of the product should not included on 10 main export commodities.
	Value of export of ten main export commodities concentrated on textile and textile products, electronics, forest products, rubber, and palm oil.	<i>Diversifikasi strategy</i> for potential commodities and penetration market strategy for coffee, shrimp, cacao, automotive, and footwear.

5. CONCLUSIONS

1. Based on consideration of the value of exports, determining 10 leading export commodities by the Ministry of Trade of Indonesia, is not right. This conclusion from the fact, that the export performance of 10 commodities, before and during the global financial crisis, and or during the last 67 months, contributed only by 5 export commodities, namely textile, oil, rubber, electronics, and forest products. Therefore the five commodities is deemed feasible, based on consideration of the value of the main export commodity. Five other export commodities, namely coffee, shrimp, cocoa, automotive, and footwear, are not exactly put into groups commodities leading export. Placement of these five commodities, judging from the average value of exports, is not right. Based on consideration of the growth rate, commodity shrimp, footwear and automotive are at a low growth rate, while cocoa and coffee have a higher growth rate. If using a value judgment and level of export growth, the commodity shrimp, footwear and automotive, are in an untenable position as leading export commodity.
2. Leading export commodity values do not correlate significantly with the number of export markets. Thus, the export markets for these commodities are concentrated in certain regions, namely the U.S. for rubber and textile commodities, India and China for oil commodities, Japan and China for commodity forest products, and rubber, Singapore and the U.S. for electronic commodity. Market concentration would lead to the vulnerability of export performance, if the export destination countries in crisis.

Ten leading export commodities, until July 2011, did not show affected by the global financial crisis. There is no significant difference in the value of commodity exports featured before and during the global financial crisis. Items thing that need to be improved for export destination countries are coffee, shrimp, cocoa, automotive, and footwear. Thus the focus of Indonesia for this penetration strategy is on the five products. The second strategy is market development strategy. The strategy adopted for the ten leading export commodities should be focus on 10 products in 10 countries outside Japan, USA, Singapore, China, India, Malaysia, Korea, the Netherlands, Thailand and Taiwan.

Determination of 10 leading export commodity by the Indonesian Ministry of Trade is not right. Because only five export commodities contributed far beyond the contribution of the 5 other export commodities.

Therefore, the Government of Indonesia, that is the Ministry of Trade of Indonesia, should be able to revise the types of commodities that are included in the featured category. Two commodities namely shrimp and footwear in a position of relatively low market share and low growth rate. Therefore significantly both the commodity should be excluded from the group of 10 leading export commodity.

Because the value of commodity exports are not related with many destination countries, then should look for certain export markets, such as countries in Asia. So the dependence on existing markets can be reduced, and the impact of the global financial crisis risks can be minimized. The 10 export destination countries main export commodities mostly to the US who are experiencing a crisis, but not a lot of Indonesia's main export commodities to 10 European destinations. However, exports of 10 main commodities are not affected by the global financial crisis. Because of the crisis and the contagion could be through financial and trade channels, crisis management protocol suggest act quickly give negative signals to the global financial crisis.

Technically, exporters should do a brand development, exploring the potential of the export market through the identification of potential export program held by the Ministry of Trade and network development for export product elicits, development of market access through exhibitions at home and abroad, put through market focus by taking prime position the activities of foreign market penetration and promotion online. See economic growth in Asian countries, China seems very highgrowth. Indonesian exports in the coming years should be directed to the countries which have a high economic growth rate.

From the internal side of exporters, the Government of Indonesia, it is advisable to develop exporters, including exporters SMEs, to enter the global market, for example through the UNESCO seal of excellence. So that product quality can have an international reputation. Indonesia is also advisable to build a network in those provinces or regions to develop professionalism exporters, and the Government of Indonesia to implement conventional continuous training and product marketing.

References

- Aaby, Nils-Erick, and Stanley F. Slater. (1989). Management Influences on Export Performance: A Review of the Emperical Literature 1978-88. *International Marketing Review*, 6 (4), 7-26.
- Bloomberg & Asia Pasific *Consensus Forecasts*. Juli 2011.

- Cavusgil, S.T., and Shaoming Zou.(1994). Marketing Strategy-Performance Relationship: An Investigation of the Emperical Link in Export Market Ventures.*Journal of Marketing*, 58 (1), 1-21.
- Cunningham, William H., Ramon J. Aldag, and Mary S. Stone. (1996).*Business in A Changing World*. 4th Edition. South-Western College Publishing. Cincinnati, Ohio.
- David, Fred. (2005). *Strategic Management*. 10th Edition. New Jersey: Prentice Hall.
- Evans O., Leone, A., Gill, M. Hilbers P.*Microprudential Indicators of Financial System Soundness*. IMF. Occasional Paper. No 192.
- Everitt, S. Brian and Sabine landau. (2011). *Cluster Analysis*. 5th edition. United Kindom: John Wiley & Sons. Ltd.
- Gersi, Adam & Hermanek, Jaroslav (2005).*Financial Stability Indicators: Advantages and Disadvantages of Their Use in The Assesment of Financial System Stability*.<http://www.cnb.cz/en/financial-stability/fs-reports/fsr-2006-article/ez>.
- Katsikeas, C.S., L.C. Leonidou and N.A. Morgan.(2000). Firm- Level Export Performance Assessment: Review, Evaluation and Development. *Journal of The Academy of Marketing Science*. 28(4). 493-511.
- Kemendag RI. [www.kemendag@go.id](http://www.kemendag.go.id), Accessed 10, 11, and 12 October 2011
- Kotler, Phillip and Lee.(2007).*Marketing in The Public Sector: A Road Map for Improved Performance*. New Jersey: Wharton School Publishing.
- Kuncoro, Mudradjad. (2003). *Metode Riset untuk Bisnis dan Ekonomi*, Jakarta: Erlangga.
- LP3EM. UI. (1997).*Gambaran Industri Tekstil dan Produk Tekstil Indonesia*. Universitas Indonesia.
- Kementerian Perdagangan Republik Indonesia.(N.d). Menuju Daya Saing Bangsa dan Kemakmuran Rakyat.
- Nuning, Triahadmini. (2011). Contagion dan Spillover Effect Pasar Keuangan Global sebagai Eraning Warning System. *Jurnal Keuangan dan Perbankan*. 13(1), 47-65.
- Porter, E., Michael. (1993). *Keunggulan Bersaing: Menciptakan dan Mempertahankan Kinerja Unggul*. Translation by Agus Dharma et. al. Jakarta: Erlangga.
- Schwab, Klaus. (2013). The Global Competitiveness Report, World Economic Forum.
- Nuning, Triahadmini.(2011). Contagion dan Spillover Effect Pasar Keuangan Global sebagai Eraning Warning System. *Jurnal Keuangan dan Perbankan*. 13(1),47-65.
- Robert W. Kolb. (2011). *Financial Contagion: The Threat to The Wealth of Nations*. New Jersey: John Wiley & Sons.
- Shohman, Aviv. (1996). Export Performance: A Conceptualization and Emperical Assessment. *Journal of International Marketing*. 6 (3), 59-81.
- Solihin, M. Juhro. (2011). Perkembangan Ekonomi Indonesia Ditengah Gejolak Ekonomi Global, Paper disampaikan pada Sespibank Angkatan 55.
- Universitas Indonesia. (2008). *Perdagangan dan Investasi di Indonesia-Sebuah Catatan tentang Daya Saing dan Tantangan Kedepan*. Bappenas, dan LPEM University of Indonesia.
- Zulhal.(2008).*Kekuatan Daya Saing Indonesia: Mempersiapkan Masyarakat Berbasis Pengetahuan*. Jakarta: Buku Kompas.