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Review

Trade response to economic shocks in Indonesia

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As an open economy, Indonesia is vulnerable to external economic shocks. In the past 14 years, the country has been hit by two big external economic crises, i.e. the 1997/98 Asian financial crisis and the 2008/09 global economic crisis, and currently it is facing the euro-zone debt crisis. This study, based on secondary data analysis, aims to examine Indonesian external trade response to these crises. The findings may suggest that trade response to an external economic crisis will depend on how the crisis affects exporting and importing firms, and the effects on the firms, in turn, will depend on the nature/type and main channels of the crisis. Obviously, as this study argues, there is no "homogenous trade response' to different types of economic crises, at least in the short-run (i.e. initial effects).

Keywords: Economic crises; Asian financial crisis; Global economic crisis; Indonesia; EZ crisis.

INTRODUCTION

Indonesia now is much more vulnerable to any economic shocks, domestically, regionally as well as globally, than, say, 30 years ago, for the following reasons. First, since economic reforms started in the 1980s toward trade, banking, investment, and capital account liberalizations, the Indonesian economy has become more integrated with the world economy. Second, though at a decreasing rate, Indonesia is still dependent on exports of many primary commodities, i.e. mining and agriculture. This means that its economy is still sensitive to any world-price/demand instability for those commodities. Third, Indonesia has become increasingly dependent on imports of a number of food items such as rice, food grains, cereals, wheat, corn, meat, dairy, vegetables and fruits, or even oil. Any increases or instabilities of world prices or world production failures of these commodities will have big effects on domestic consumption and food security in Indonesia. Fourth, more Indonesian working population, including women, went abroad as migrant workers, and hence livelihoods in many villages in Indonesia have become increasingly dependent on remittances from abroad. Any crises hit the host economies (such as happened in Dubai during its financial crisis in 2009) will hit the Indonesian economy too. Finally, as a huge populated country with increasing income per capita, domestic food consumption is not only high but it keeps increasing. Accelerating output growth in agriculture is therefore a must for Indonesia, and this depends on various factors, including climate, which is an exogenous factor. As Indonesia is located between the Pacific ocean and the Indian ocean in the line of equator, the country is always vulnerable to El Nino/La Nina phenomenon which may cause failures in rice (and other commodities) harvest and therefore will generate a hyperinflation. Also, as Indonesian population keeps growing, the availability of areal for agricultural commodities, including the main Indonesian food, i.e. rice, steadily declines

Since the mid 1990s, Indonesia has experienced two economic crises, i.e. the Asian financial crisis that started in mid. 1997 and reached its worst peak in 1998, and the global economic crisis during the period 2008-2009. In addition to these two economic shocks, Indonesia is currently expected to be impacted by the ongoing euro-zone (EZ) debt crisis, though its effect until now is still modest. This paper aims to examine the Indonesian experiences with these two past crises and also with the ongoing one. With its focus on trade, the paper addresses three key questions. First, what were the main transmission channels through which the two past crises affected the Indonesian economy, particularly its trade. Second, how would the impact of the ongoing EZ debt crisis be on the Indonesian economy, especially its trade. Third, was the impact on the Indonesian economy different between the crises, and if yes, what factors made the difference?

The main objective of this paper is to examine how Indonesian external trade has responded to the three economic crises, i.e. the 1997/98 Asian financial crisis, the 2008/09 global economic crisis, and the ongoing euro zone crisis. As a descriptive analysis, methodologically, the paper is based on secondary data analysis and a review of key literature. The paper has three main parts. The first part discusses types of the crises experienced by Indonesia and gives a theoretical explanation on the main transmission channels through which the three crises have affected the Indonesian economy. The second part examines empirically the impacts of those three crises on the Indonesian economy focusing on trade. The third part gives the most likely reasons for the different impacts experienced by Indonesia from those crises.

Types of Crises and Their Main Transmission Channels

Currency Crisis: The 1997/98 Asian Financial Crisis

In Indonesia, the 1997/98 Asian financial crisis was triggered by a sudden capital flight from the economy, soon after it occurred first in Thailand, which led its national currency, rupiah, to depreciate significantly against the US dollar.[i]The depreciation was soon followed by a national banking crisis and ended up as a national economic crisis. Thus, for Indonesia, the 1997/98 crisis was initialy a currency crisis. Theoretically, with this type of crisis, its direct impact would be mainly on Indonesian international trade, i.e. export and import (Figure 1)[ii], and international financial transaction. In the international trade, export will respond differently than import will, *ceteris paribus*. On the export side, by assuming other factors remain constant, including no restriction in domestic production capacity and no other production constraints, Indonesian export will increase. This is the “export-side effect” of currency depreciation.[iii]

On the import side, with the assumption that all other direct as well as indirect import determinants are constant, the price in national currency of imported consumption and non-consumption goods will increase. In the case of non-consumption goods (i.e. raw materials, capital and intermediate goods, components/spare parts), as a direct response to this, two possibilities may happen: (1) import declines which leads to the decrease in total domestic production using imported inputs, and thus will reduce gross domestic products (GDP) or national income. If many Indonesian exporting firms also using raw materials and other inputs bought from abroad, then Indonesian export will also decline, simply because the firms have to cut or even to stop their production since the benefit they will get from the increase in export revenues in rupiah (depending on price elasticity of export demand) is smaller than the extra cost in rupiah they have to pay for their imports; or (2) imports may stay constant as some imported materials are non-domestically substituted necessity inputs, but this will lead domestic production cost to increase and finally it will generate higher rate of domestic inflation. Domestic-currency prices of Indonesian exported goods produced by import-dependent firms will also go up and it will reduce the increased price competitiveness from the depreciation, depending on, among other factors, the proportion of imported inputs embodied in their exported goods.

With respect to import of final consumption products, imports will decline by two causes: (1) higher prices in national currency of imports, given that national income has not been affected yet (short-run effects), and (2) the decline of national income caused by higher unemployment and declined profits induced by output reductions in both domestic as well as export market oriented domestic firms which depend much on imported inputs. The decline in imports of both inputs and final consumption goods is the “import-side effect” of currency depreciation.

In a normal situation, as theoretically predicted, the combination between the “export-side effect” (i.e. export increases) and the “import-side effect” (i.e. import declines) will improve the equilibrium trade balance. But, there are always potential adverse effects on the rest of the economy or on trade balance for some reasons that will be discussed next. [iv]

The rupiah depreciation will also make the value in rupiah of foreign debts (in the US dollar against which rupiah has depreciated) owned by domestic firms to rise. Many highly foreign indebted domestic firms will face a serious internal financial crisis. If many of them have to reduce their production or even collapse, domestic total production will then further drop, *ceteris paribus*.This can be called as “the foreign loan cost-side effect” of currency depreciation.[v]This will also disturb Indonesian export if many of the firms are exporting firms.

Normally, as a policy response from the monetary authority in an effort to reverse capital flight and to stop the national currency from further depreciation, domestic interest rates will increase, as also happened in Indonesia during the crisis. But, this monetary policy measure has its negative side, as evident in Indonesia during that period: higher interest rate will reduce credit demand on one hand, and, increase non-performing loan (NPL) of highly indebted firms, on the other hand, which will have negative effects on export as well as import activities. This can be called as “interest-rate effect” of currency depreciation.

This process does not stop there, but it continues until it reaches a “new equilibrium”. As the increase in NPL continue, it will further lead to banking financial difficulties and cause bank panics (as depositors try to withdraw their money regardless of the health of their banks), which often at the end result in the collapse of

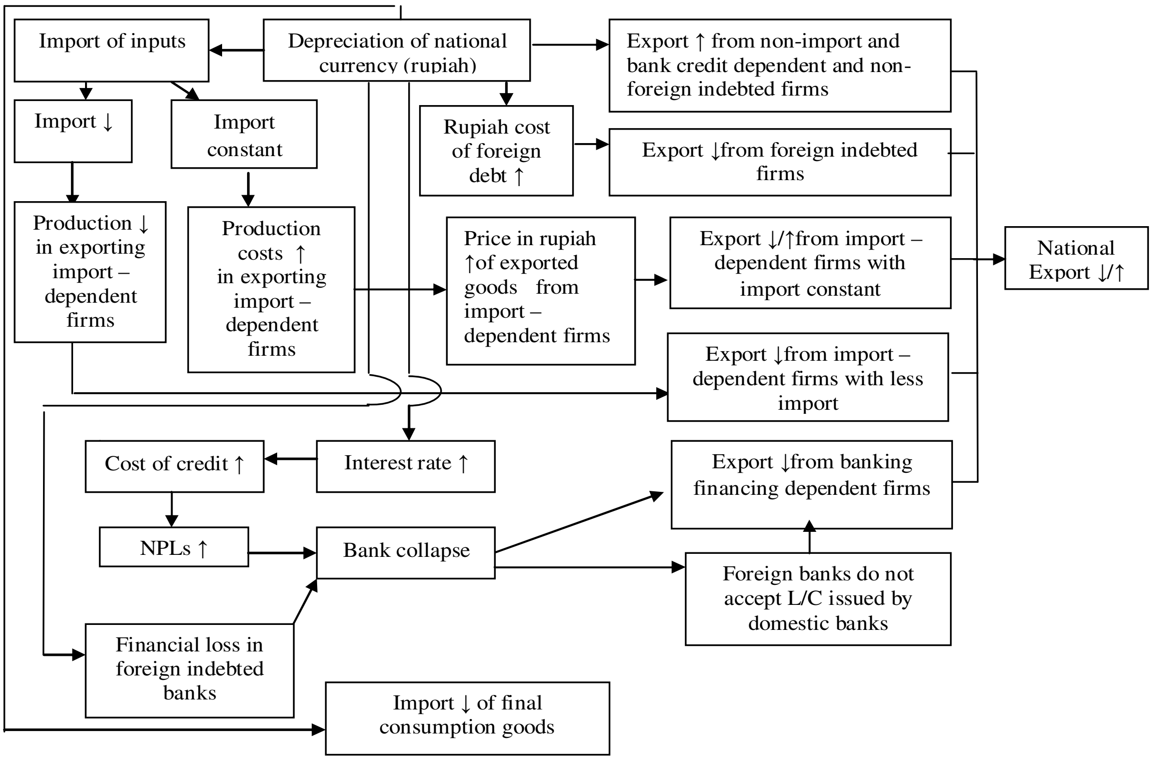

Figure 1: Key Transmission Channels of the Effects of the 1997/98 Asian Financial Crisis on the Indonesian Trade

banking/financial sector. This "banking effect" of currency crisis is discussed, among many others, by Kamininsky and Reinhart (1999) who stated that the combination of massive currency depreciation and high domestic interest rates may lead to a vicious cycle that aggravates the severity of the banking sector's woes, which will result in credit shortages and in the breakdown of financial relations, which makes trade-related financing more costly if not unavailable, leading further to the decline in export and import activities.

Usually, local companies doing export or/and import can use various types of international finance from local commercial banks, and the three most important types are letter of credit (L/C), domestic bank credit, and trade credit. L/C is specifically designed to facilitate international trade. The function of this mechanism is both to provide finance and provide assurances about payment to the exporting enterprises. If an irrevocable L/C is issued, the exporter receives payment when it provides the specified documents to the advising/confirming bank. However, L/C requires confidence and liquidity to be maintained at various points along the chain of payment from the importer, to the issuing bank, to the advising/confirming bank and to the exporter. Because the national banking sector in Indonesia collapsed, banks in foreign countries did not accept the L/C issued by Indonesian banks.

Whereas, domestic bank credits, especially trade credits are usually used by exporters to cover their pre-shipment or post-shipment costs. Such funding is similar to the provision of working capital in general, although it may be less risky to the extent that it is loaned against specific purchases and assets. Financial outflows during the 1997/98 crisis reduced liquidity in the domestic banking system. Whereas, international banks operating in the domestic market reduced credit in order to cut the exposure of parent banks. Also, shortages of foreign currency prevent banks in the affected countries (i.e. Indonesia, Thailand, South Korea and the Philippines) lending the foreign exchange needed for the import of inputs or export freight charges.[vi]

Thus, the above theoretical explanation may suggest that there are many possible transmission channels through which a currency depreciation such as experienced by rupiah during the 1997/98 crisis affects trade, and thus no guarantee that a national currency depreciation will lead export of the particular country to increase and import to drop. Even, if total export does increase, it is likely that exports of some commodities increase, while those of other decline or not change at all. It will depend on many factors including degree of import or/and bank credit dependency of exporting companies, and their production capacity which determine their ability to respond to the depreciation. The overall net impact of currency depreciation on trade balance can thus be positive (surplus increases or deficit declines), negative (surplus declines or deficit increases) or zero.

Trade Crisis: The 2008/09 global economic and 2011/12 EZ debt crises

The global economic crisis that began with the 2007 collapse of the US subprime lending market and then spread worldwide through 2008-09 is remarkable for its global impact on world trade (Neto and Romeu, 2011). The crisis has been called by many economists as the most serious economic or financial crisis since the great depression in the 1930s. The crisis impacted many economies through various channels: exports, investment (including foreign direct investment/FDI) and remittances. Its global effects include the failure of key businesses in the US, Japan and other developed economies, declines in consumer wealth estimated in the trillions of U.S. dollars, substantial financial commitments incurred by governments, and a significant decline in economic activity (Tambunan, 2010,2011).[vii]

However, for many developing economies and economies in transition the most important channel through which the crisis affected their economies was export. Although, in some economies the drying-up of trade finance also played a role, many empirical studies show that international trade has been by far the most important channel of transmission of negative effects on GDP growth in many economies, including in Asia, from the crisis (Akyüz, 2010a,b, 2011; OECD, 20120). WTO (2010) shows that after growing by close to 10% per annum during the years before the crisis, world trade volume started to fall sharply in the last quarter of 2008 and throughout the first half of 2009. Despite the subsequent recovery, it registered a decline of close to 13% for the year as a whole. In many export-depending economies, retrenchments mounted in many export-oriented manufacturing firms, while working time fell along with increased downward pressure on wages. Also many employees in these firms were laid off and many of them migrated back to rural areas and shifted to informal and vulnerable employment. Especially in South-east Asia, the crisis has revealed that economic growth in the region is highly vulnerable to slowdown in exports to major advanced economies such as Europe and the US. For instance, in years before the crisis, at least one third of growth in China was due to exports (Akyüz, 2011). The same with respect to the ongoing EZ debt crisis which caused export demands from many economies in this zone dropped.

For Indonesia, the 2008/09 global economic crisis and the ongoing EZ debt crisis are the same in their nature, namely they are both considered as a collapse in world trade or world export demand. Theoretically, as illustrated in Figure 2, Indonesian export can be affected both directly from the initial sources of the crises and indirectly through the third economies. In the case of 2008/09 crisis, its initial source was the US, and in the case of EZ debt crisis, it came from Greece and other highly indebted euro countries. Thus, as a direct effect, Indonesian export to these economies will decline as their export demands for Indonesian goods like textile and garments and footwear drop due to their financial troubles. But, the direct impact on Indonesian export may be minor due to the fact that euro economies especially Greece and Italy have very small shares in Indonesian total trade. Traditionally, countries such as the US, Japan and recently China have been the most important Indonesian trading partners. However, if Chinese or US economy is seriously affected by the EZ debt crisis, then the indirect effect (or total effects) of the EZ crisis on Indonesian trade can be serious.

Further, the decline in Indonesian export will lead Indonesian import to decline through two channels, i.e. indirectly caused by the decline in national income as a result of export declines, and directly to the decline in import of crisis-impacted exporting firms for intermediate inputs. Indonesia is heavily dependent on imports not only for final products but also components, spare-parts, and processed raw materials for exporting companies.

Empirical evidence

The 1997/98 Asian financial crisis

The 1997/98 crisis was triggered by a sudden capital flight out of Thailand which led to its currency crisis (i.e. huge depreciation of bath against the US dollar) and ended up as a big financial/economic crisis in the country. Soon after, capital in huge amounts also fled out of Indonesia, South Korea and the Philippines, leading to a big fall in their currencies. Other economies in the region such as Malaysia and Singapore were also affected, though less severely. In Indonesia, as a result of a huge capital flight, rupiah, the country's currency, depreciated day by day and reached a total fall of more than 500% between August 1997 and May 1998 (Figure 3).

The impact of the crisis on domestic economy, however, varied by country, and Indonesia was the most severe affected economies. The Indonesian experience with the crisis is indeed somewhat unique, not only unusual in historical context but also among other Asian economies experiencing this crisis. It is unique especially in two ways. First, depreciation started in August 1997 which occurred under conditions of relative balance in the prior macroeconomic situation. Indonesia with other crisis impacted economies had unusually high growth rates during the 1980s and 1990s, accompanied by high domestic savings and investment rates, increasingly open trade and industrial policies, and rapid expansion of

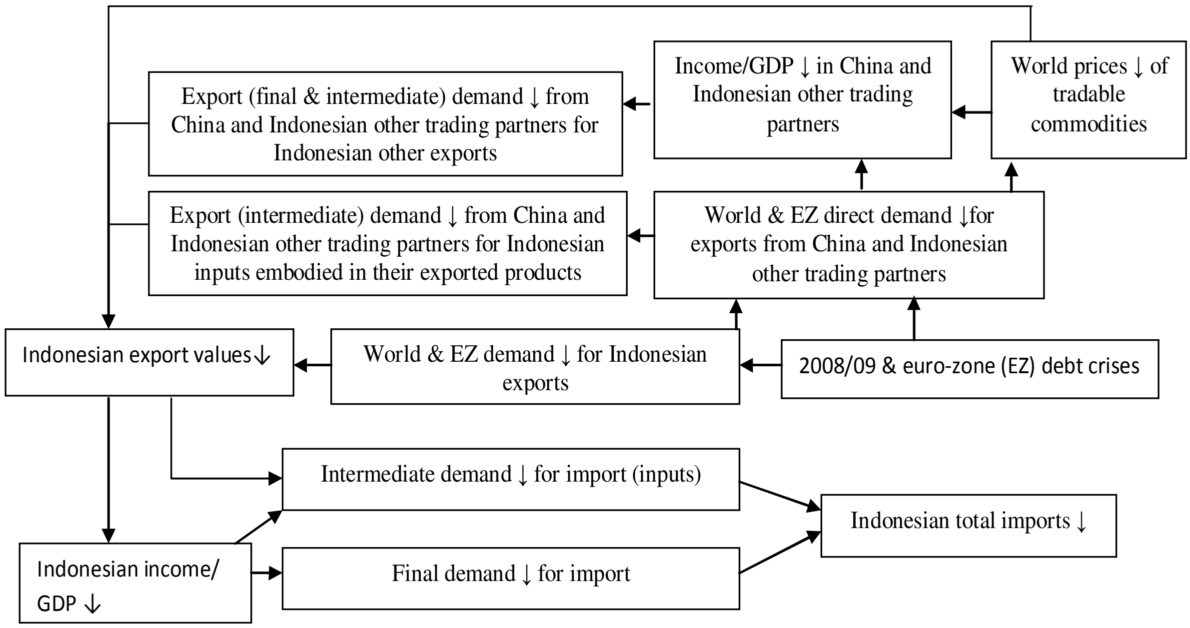

Figure 2: Key Transmission Channels of the Effects of the 2008/09 Global Economic Crisis and the Ongoing EZ Debt Crisis on the Indonesian Trade

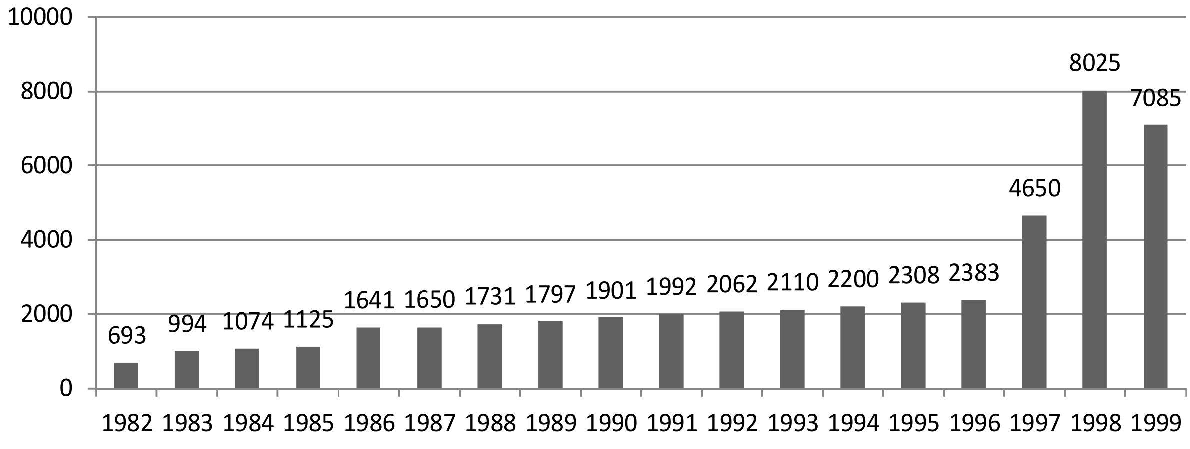

Figure 3: Exchange Rate of Rupiah, 1982-1999 (Rp per US$)Source: ADB Key Indicators

labour-intensive manufactured exports. These achievements were the result of a combination between a decade of gradual trade deregulation and prudent macroeconomic policies (i.e., disciplined non-inflationary monetary policy, non-deficit fiscal policy and relatively appropriate exchange rates). In other words, as Indonesian economy was solid prior to the crisis, there was no reason for capital flight. Second, the depth of the crisis, as stated by Furman and Stiglitz (1998), was among the largest peacetime economic contractions since at least 1960.

The country's economy had plunged into a deep recession in 1998 with overall growth at minus 13.7% (Figure 4). This was much higher than the highest positive economic growth ever achieved during the Soeharto era (1966-1998), or even until the present day. The worst declines were in the construction sector (-39.8%), financial sector (-26.7%), trade, and hotel and restaurant (-18.9%). Other sectors, which had large contractions, were manufacturing (-12.9%) and transport and communication (-12.8%). Mining and other services sectors experienced a contraction of about 4.5%.

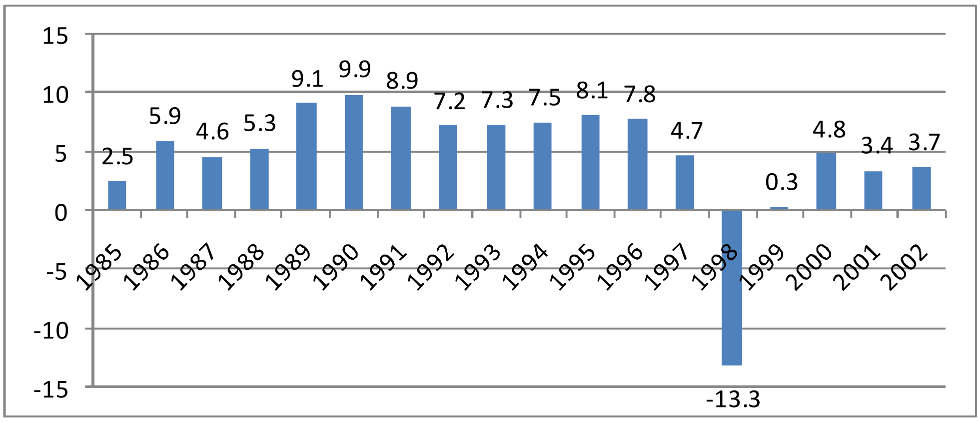

Figure 4: Indonesian GDP Growth rate during the 1997/1998 Crisis (%). Source: Statistical Yearbook of Indonesia (various years), Indonesian National Agency of Statistics (BPS) (www.bps.go.id).

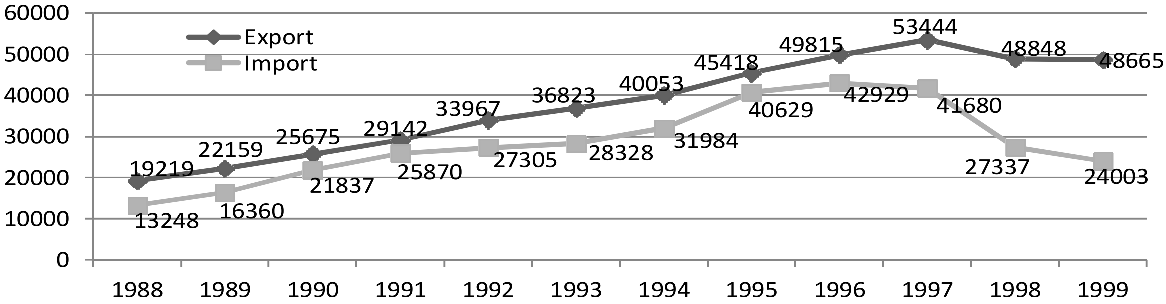

Figure 5: Indonesian Merchandise Trade During the 1997/98 Crisis Period (f.o.b in millions of current US$) Source: ADB Key Indicators

Table 1: Indonesian Foreign Trade Indicators (% of GNP)

Indicator	Period		
	1980	**1990**	**1999**
Total Trade	50.2	43.5	55.5
Trade Balance	18.9	3.5	18.8
Current account balance	4.3	-2.7	4.9

Source: ADB Key Indicators

The agricultural and utility sectors still experienced positive growth at about 0.2% and 3.7%, respectively (Feridhanusetyawan, et al., 2000). Many believed that the severe impact was caused by the following problems faced by the economy prior to the crisis: high dependency of Indonesian companies in almost all sectors on imported inputs and debts, both domestic and foreign, and inefficiency (high cost economy).[viii]

With respect to international trade, Indonesian data on merchandise export value in US$ do not seem to fully support the general theory that depreciation of a national currency will lead the country's export to increase, *ceteris paribus*. Total merchandize exports steadily increased prior to the crisis and then dropped in 1998 by almost 8.6% from the previous year. Total merchandise imports did respond as theoretically expected at 34.4% (Figure 5); although Indonesian imports of some products did not fall. The larger decline of total import than that of total export then resulted in the increase in Indonesian trade balance (Table 1).The decline in merchandise export was caused mainly by the drop of oil and gas exports at -32.3% in comparison with the decline at -2.0% of non-oil and gas exports. Whereas in merchandise import, the percentage of decline was not so much different between

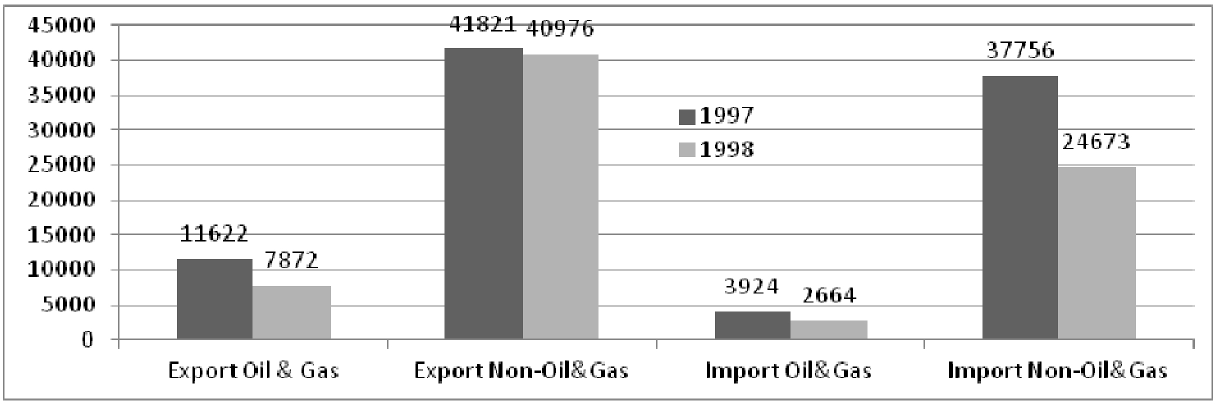

Figure 6: Export and Import Values by Main Category of Good during the 1997/98 Crisis Period (f.o.b in millions of current US$) Source: ADB Key Indicators

the two categories, i.e. 32.1% and 34.7% (Figure 6). At disaggregate level, the impact on export of non-oil and gas, however, varied across industry. As shown in Figure 7, exports of some products increased, while others declined. It depends in part on the extent of imported inputs in total costs, and the financial condition of firms in that industry, especially their ability to self-finance so they can avoid the effect of the collapse in the financial sector.

The above evidence indicates that, although the severe depreciation of rupiah did result in a real depreciation and a change in relative prices of tradable to non-tradable goods and services, it did not make Indonesian export to grow. It only resulted in rise in net exports in the Indonesian trade balance or current account (measured in US dollars) which was mainly the result of import compression. There are some explanations for that. First, as already explained, many Indonesian companies, including export-oriented ones were heavily dependent on imports, that they have to pay in rupiah, and therefore they could not benefited substantially from the depreciation in the form of increased price competitiveness in the international market. The situation had become worst as inflation also rose significantly in that time caused by the depreciation. By the end of 1998, wholesale prices of export commodities excluding oil and gas and import commodities rose by respectively 181.6% and 130%, and the general wholesale price index rose by 101.8% compared with 1997 (James, 1999). Although, no disaggregated data by firm to support, it is most likely that many exporting companies in Indonesia must cut their production and hence their export volume or even stop production at all. Second, as found by James (1999) in his research, the volume of export, at least of some commodities, did expand. But weak international prices for the items made the value of merchandise exports to decline. Third, the collapse of national banking which made many highly bank credit depending companies impossible to continue their businesses, as credit generally was difficult to obtain and trade finance became scarce. Tambunan (2010) notes that during the crisis, many especially conglomerates could not continue their production and export, and others have to cut their imports of processed raw materials because it was hard to find trade credit and to issue L/C acceptable by foreign banks. James (1999) found that exporting companies of footwear and other manufactured products were having difficulty obtaining credit for working capital, imported components and export insurance. This problem was much less serious for farm activities or exporters of agricultural commodities as they in general did not depend much on bank financing and also the share of purchased raw materials in their operations was relatively small and therefore they benefited substantially from the depreciation, and have increased export production (Barichello, et al., 1998).[ix]Fourth, many Indonesian firms, especially big companies which were the main engine for high economic and export growth rates prior to the crisis, had build-up large foreign debts. The depreciation of rupiah made them fall into a serious financial crisis that they had to stop their production. Fifth, during the crisis period, demand in major markets in Asia, particularly Japan, was declining with the deepening recession (James, 1998a,b, 1999). Sixth, transportation and logistic costs increased significantly. James (1999) found that freight rates were being increased as shipping companies sought to make up for losses resulting from rising imbalances between outward and inward cargo shipments. Seventh, social unrest in May 1998 and soon followed by political instability and accompanied by mixed Indonesia's policy response to the crisis (although initially sound) had created economic uncertainty and investment risks.

The 2008/09 global economic crisis

The 2008/09 global economic crisis initially came from the US and rapidly developed and spread into a global

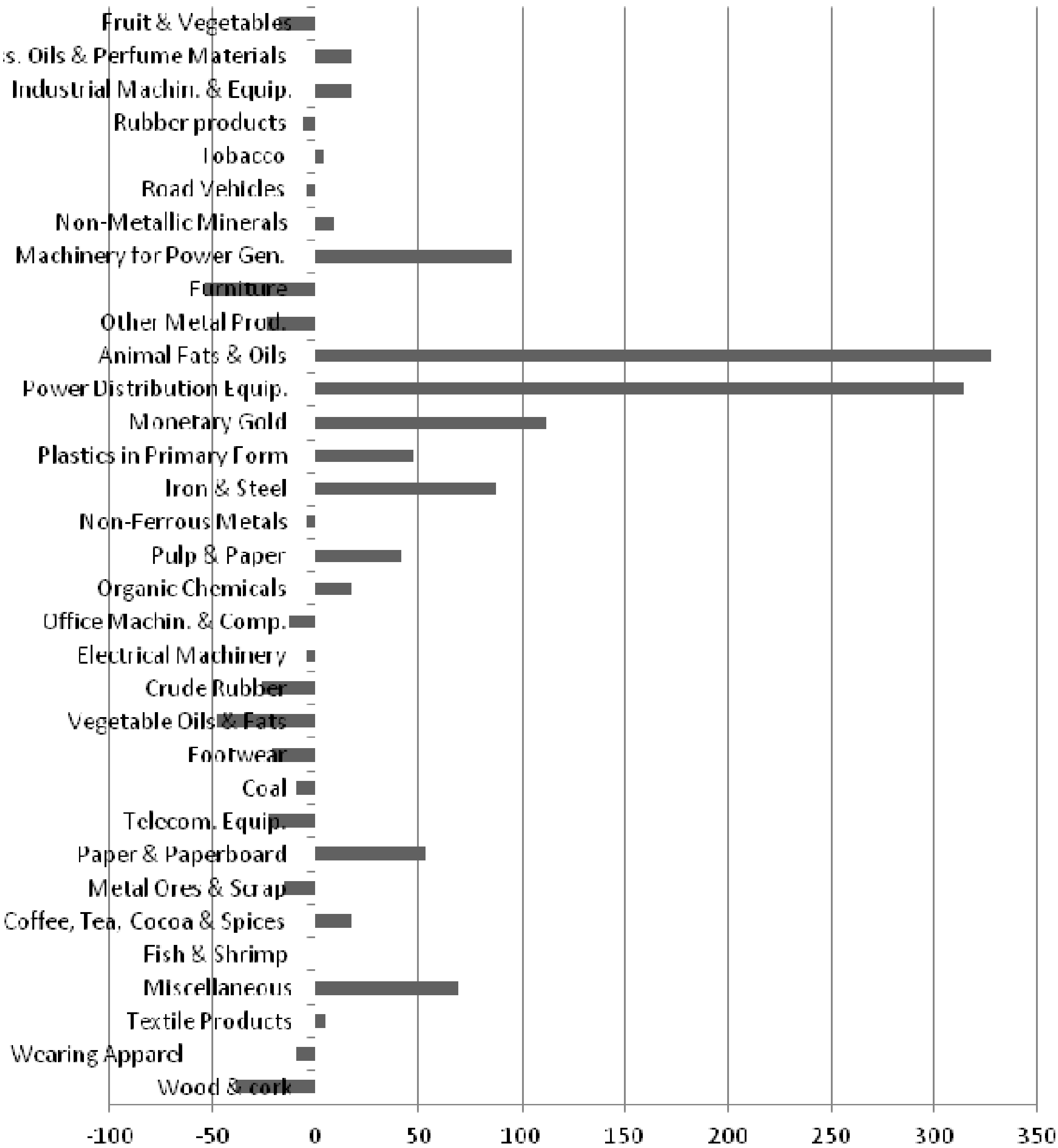

Figure 7: Percentage Changes in Indonesian Export Values of Manufactures (SITC 2-digit category)
Source: BPS (www.bps.go.id).

economic shock, resulting in a number of bank failures, declines in various stock indexes, and large reductions in the market value of equities and commodities. It also contributed to sudden significant export declines in Europe, emerging Asia, and the Americas.[x] While export was the most important transmission channel for most of the affected economies, the 2008/09 crisis for those economies was therefore primarily a world demand crisis (Levchenko, et al., 2009). As explained already, this kind of shock will affect those economies, first, through its effects on their domestic firms exporting products which face less world demands. It leads further to less production and employment in these firms and also in other backward as well as foward production-related industries/sectors. The employment reduction causes a decline in incomes of many individuals or households. Lower individual or household incomes will result further in lower market demands for goods and services and

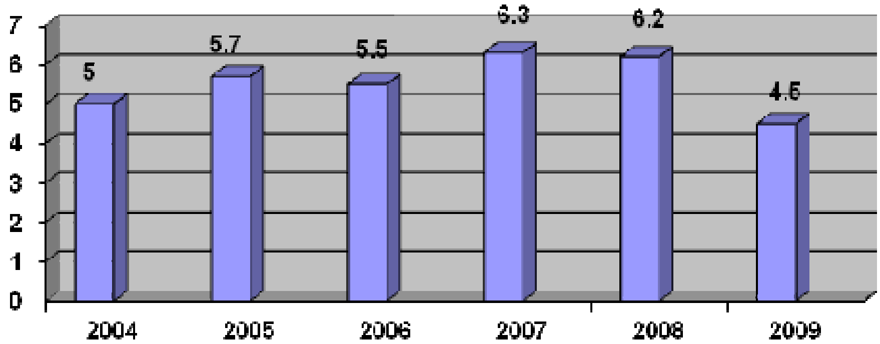

Figure 8: Indonesian Annual Economic Growth 2004-2009 (%)
Source: Statistical Yearbook of Indonesia (various years), BPS (www.bps.go.id).

hence, production cuts in many industries/sectors, leading to more unemployment and households with lower incomes, and so on which will also lead import to decline (Tambunan, 2011).

Thus, from their initial causes and main channels, it is obvious that the 2008/09 crisis was significantly different than the 1997/98 crisis, at least in two respects. First, the 2008/09 crisis was an external shock, while the 1997/98 crisis had internal origin, i.e. capital flights from domestic economy. Second, the 2008/09 crisis was a world demand crisis caused by the drop in incomes from many developed economies like the US, the EU and Japan, whereas the 1997/98 crisis was initially a national currency crisis caused by capital flights, followed by a national banking crisis and ended up as an economic crisis.

Many Asian developing economies were affected by the 2008/09 crisis, though not in the beginning (Akyüz, 2010c). Based on quarterly data on the economic growth rate in Southeast Asia for the period 2008 and 2009, economies like Thailand, Malaysia, Singapore, Philippines and Indonesia still showed some resilience towards the crisis. They managed to have positive overall economic growth rates in 2008; though the rate varied quarterly and by economy. Within the group, Indonesia had the highest rate at around 6.1%. However, in the first quarter of 2009, they experienced deteriorating economic performance, except Indonesia. Singapore suffered the most and recorded -8.9% in real GDP growth rate (year-on-year basis) in the first quarter of 2009. This is not surprising at all, given the fact that as a tiny economy, Singapore is fully integrated with the global market for goods, services and finance. Consequently, its economy is fully sensitive to any external economic shocks. Meanwhile, Indonesia and the Philippines managed to keep positive growth, although at declining rates during the crisis period. In the first quarter of 2009, Indonesia achieved 6.2% growth, but in the last quarter it was lower at 5.2% (Tambunan, 2011).

What surprising was that, while the economy of other countries in the group was deteriorated significantly, especially during the first months in 2009, Indonesia had not only positive but also slightly higher GDP growth rates during the second and third quarters of that year. In overall, however, the growth rate of the Indonesian economy was at around 4.%, which was much lower as compared to 2007 and 2008 (Figure 8). This may suggest that the Indonesian economy was also affected by the crisis, but nevertheless, Indonesia was able to keep positive economic growth rates during the crisis period (Tambunan, 2011).

In the trade area, the crisis has caused the fall in world prices for many primary commodities and world demand for manufacturing exports from many developing economies. Many of these economies also suffered from the decline of world demand, which have contracted even since mid. 2008. In most Asian developing economies in the years preceding the crisis merchandize exports were the most dynamic component of aggregate demand, which grew faster than domestic consumption and investment. The merchandize exports in some economies in the region such as China (including Hong-Kong), Chinese-Taipei, India, South Korea and Indonesia grew at double-digit rates (Akyüz, 2010c). The impact of the crisis on Indonesian merchandise exports was obviously evident in 2009 by a negative growth rate of around 14%. In that year, its merchandize impots also fell, usually following the decline in exports by a few months, at a much larger percentage, around 23% (Figure 9). While imports have collapsed more dramatically than exports, as import declined not only for intermediate products but also for final goods, Indonesia trade balance and current account balance have improved from 22.9 US billion to 35.2 US billion, and from 0.1 US billion to 10.6 US billion, respectively, between 2008 and 2009. But, in 2010, import recovered in higher speed than that of export which made surplus in trade balance tend to stabilize (Figure 10). As a percentage of GDP, Indonesian current account balance also increased from 0.0% in 2008 to 2.0% in 2009, and then, partly as imports increased faster than that of export, declined in 2010 (Figure 11).

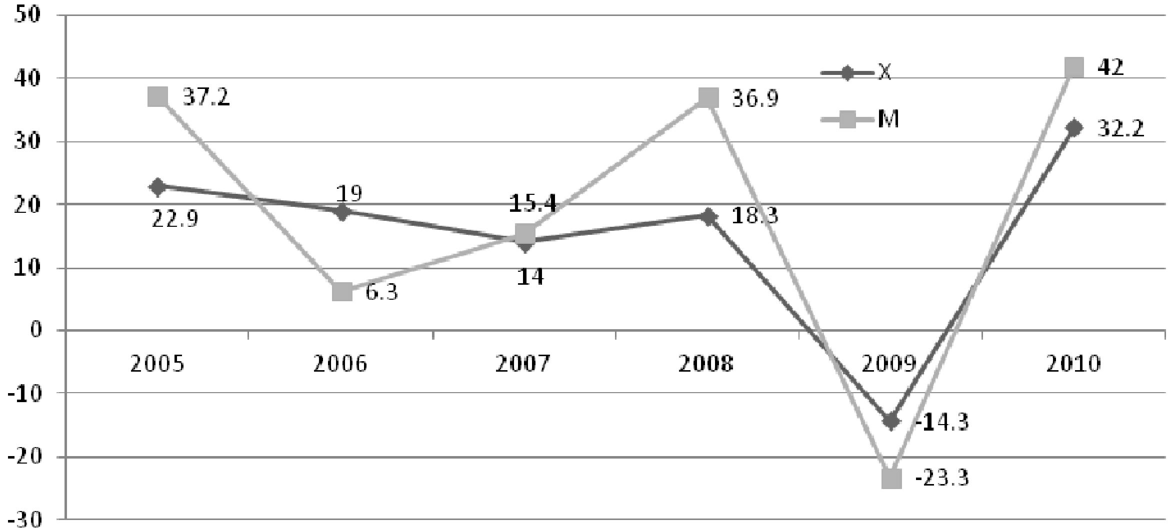

Figure 9: Growth rate of Indonesian Merchandize Exports (X) and Imports (M), 2005-2010 (% per year)
Source: ADB (2010a,b,2011).

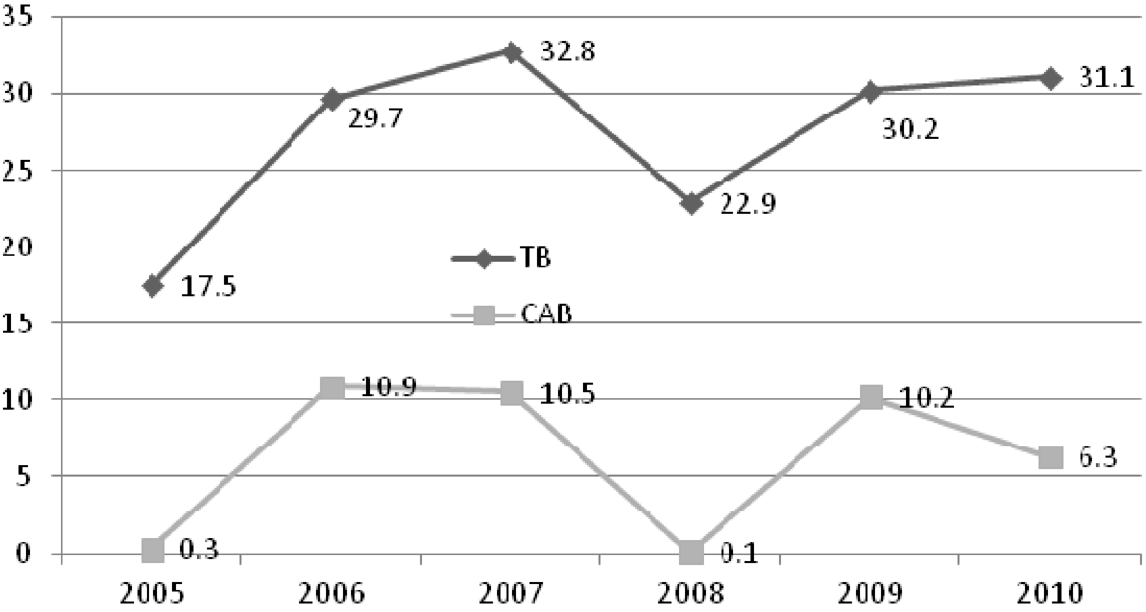

Figure 10: Indonesian Trade Balance (TB) and Current Account Balance (CAB), 2005-2010 (US$ billion)
Source: ADB (2010a,b,2011).

The merchandize exports consist of two groups of products, i.e. primary commodities (i.e. unprocessed mining and agricultural commodities) and manufactured goods. The main cause for the decline in merchandize exports was different between the two groups. With respect to the dropped exports of primary commodities, it was the fall in their international prices, as a direct result of world over-supply for the particular items (i.e. less world demand caused by the decline in world income while supply kept increasing or relatively constant). For the declined exports of manufactured goods, less orders or demands from Indonesian key economies of destination such as the US and Japan was the main cause. Indonesian total export of manufactured started to decline in November 2008 and continued until reached its worst situation in January 2009 at 35% (year-on-year),

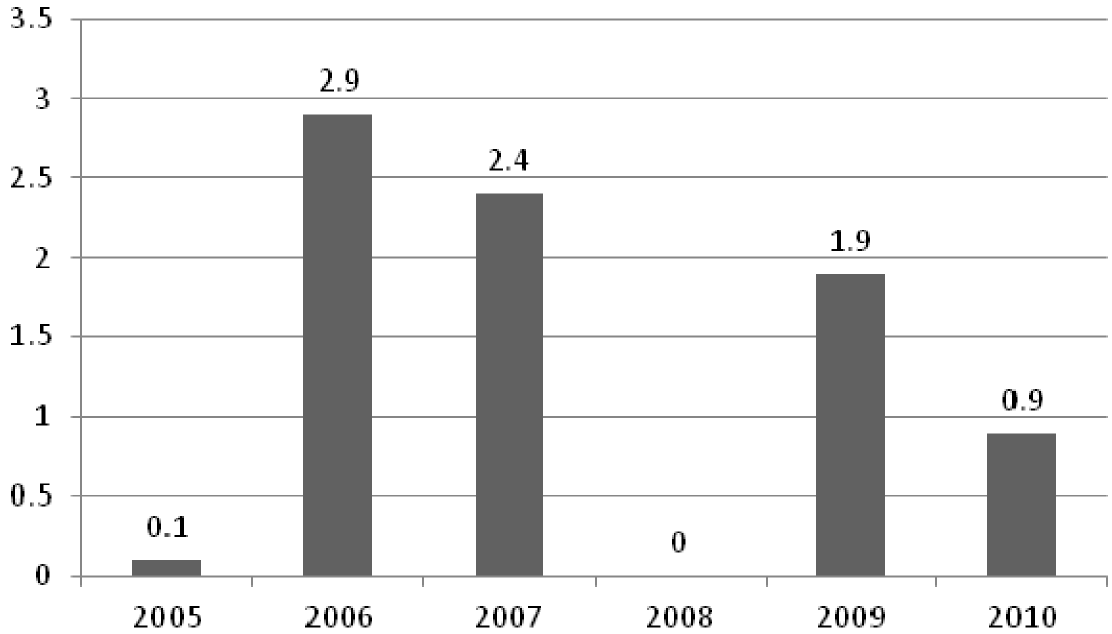

Figure 11: Indonesian Current Account Balance (% of GDP), 2005-2010Source: ADB (2010a,b,2011).

Table 2: Year-on-Year Export of Manufactured Goods of Selected ASEAN Member Countries, April 2008-April 2009

Period	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
2008						
April	22.5	20.9	4.9	16.4	16.6	29.1
May	31.6	22.9	2,4	12.5	12.5	32.1
June	34.1	18.6	9,2	10.9	20,6	34.1
July	24.8	25.3	4.4	15.2	39.7	47.1
August	29.9	10.7	6.6	7.7	5.2	36.8
September	29.0	15.0	1.3	11.4	18.2	8.6
October	4.7	-2.6	-14,4	-4,3	2.4	20.1
November	-1.8	-4.9	-11.4	-11.9	-20.1	-6.3
December	-18.7	-14.9	-40.3	-20.4	-11.5	4.3
2009						
January	-35.0	-27.8	-40.6	-37.8	-24.6	-25.5
February	-32.3	-16.0	-39.0	-23.7	-6.6	32.3
March	-27.9	-15.6	-30.8	-20.7	-16.6	13.0
April	-22.6	-26.3	n.a	-26.0	-16.1	-16.1

Source: CIEC Data Company Ltd.provided by Atje and Kartika (2009).

and then started to recover, though the process was slow (Table 2).

As in the case of 1997/98 crisis, although Indonesia had experienced a decline in its total merchandize exports during the 2008/09 global economic crisis, at disaggregate level, not all products saw a drop in export demand, or the degree of decline varies. As have been documented in many studies,[xi] garments, textiles, footwear, computing equipment, electrical, and nonelectrical machineries have been some of the worst affected exports by the crisis. Khor and Sebastian's (2009) research shows that these products constituted a disproportionate share in the top five affected products across various countries. These were also among the

Table 3. Export Growth by Selected/Key Manufactured goods, 2008-2009 (% change year-on-year)

Commodity	Growth Performance (%)
Crude palm oil (CPO)	-43.66*
Steel, machines and automotive	-24.68*
Textile and garments	-12.39*; -34**; -12***
Rubber	-44/75*
Electronics	14.08*
Electrical machinery & apparatus	-42**; -6***
Pulp and paper	-23.95*
Wood, including furniture	-26.58*
Food and beverages	-25.83*
Leather,including footwear	-14.14*
Plastic	-19.51*
Tobacco	8.22*
Fertilizer	-26.01*
Gold and silvers	38.30*
Cosmetics	5.69*
Total exports of manufactured goods	26.77*

Notes: * first half 2008-first half 2009; ** Q1 2008-Q1 2009; *** Q3 2008- Q3 2009. Sources: for *: database from Ministry of Trade (www.depdag.go.id); for ** and *** : Khor and Sebastian (2009) (CEIC Data Company)

most severely affected export-oriented industries in Indonesia which were closely connected in regional and global value chains through trade and production systems in developed economies like Japan, the US and key European economies, i.e. Germany, France and United Kingdom (UK). [xii]Therefore, these industries are always vulnerable to regional or global external shocks like the 2008/09 crisis (i.e. unexpected decline in the world demand). Until June 2009 the growth rate of some Indonesian exports was still negative compared to the same period in 2008, while others already started to have positive growth rates (Table 3).

Differences in Indonesian export responses by commodity to the crisis may also explained by Nicita and Tumurchudur-Klok's (2011) findings. They investigate whether export performance during the crisis differs between new (bilateral) trade flows and well-established traditional trade flows. They found that, although shrinking world demand has had a negative effect on both new and well-established trade flows, it has had more severe implications for new trade flows. Their finding may suggest that new bilateral trade flows have a lower probability of surviving the fall in world demand in comparison with traditional trade flows.

The ongoing EZ debt crisis

The effect of the global economic crisis in 2008-09 is not yet fully over, the world economy is teetering on the brink of another major downturn. Output growth rates in many economies have already slowed considerably during 2011 and much lower growth is expected during 2012 and 2013. The most pressing challenges lie in addressing the continued declining prospects for economic growth, especially in the developed economies, which would have a great impact on the world economy. UN provides most recent estimated figures from a downside scenario for the world economy in 2012, which show that the world economy would face another recession with the growth rate at 0.5% in 2012 from 2.8% in 2011. Developing economies and the economies in transition would likely take a significant blow. The impact would vary as their economic and financial linkages to major developed economies differ across economies. As a result, GDP growth in developing economies would decelerate from 6.0% in 2011 to 3.8% in 2012, that is, to almost half the pace of growth (about 7% per year) achieved during 2003-2007. Whereas, developed economies are predicted to have a negative growth at -0.9% in 2012 from 1.3% in 2011. Within the group, the US economy would drop to -0.8% in 2012 from around 1.7% in 2011. The Japanese economy is predicted to have a positive growth though very low at 0.5% in 2012, but it is an increase from -0.5% in 2011. The economy of the European Union (EU) would decline from 1.6% in 2011 to 0.7% in 2012 (UN, 2012).

It is generally believed that the main cause of this "second global economic crisis", though it is still in narrow scale (as compared to the 2008/09 crisis), has been the sovereign debt crisis in the EZ, and of fiscal problems elsewhere, including in the US. The sovereign debt crises in a number of EZ economies worsened further in 2011 and aggravated weaknesses in the banking sector. Even bold steps by the governments of the EZ economies, particularly Germany and France, to reach an orderly

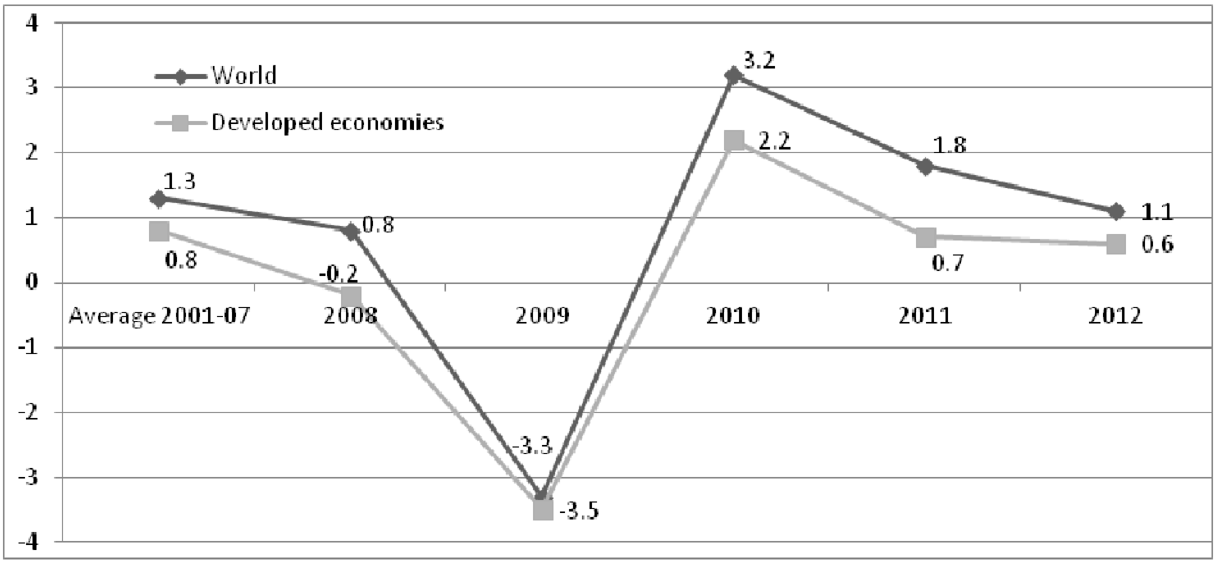

Figure 12: Changes in World and Developed Economies' Total Imports: 2011-2012 (% of GDP of the region)
Notes: figures for 2011 are partly estimated and for 2012 are projections

sovereign debt workout for Greece have been met with continued financial market turbulence and heightened concerns of debt default in some of the larger economies in the EZ, Italy in particular. The economy of EZ is expected to drop to 0.4% in 2012 from around 1.5% in 2011 (UN, 2012).

For Indonesia, at least, the EZ debt crisis is considered as a trade (export demand) crisis, similar to the 2008/09 crisis, as it has an impact on the Indonesian economy initially through export. According to UN most recent estimated figures, the growth of world trade volume declined 12.6% in 2010 to 6.6% 2011. Weaker global economic growth, especially among developed economies, is the major factor behind the deceleration. As a result, over the four-year period that started with the sharp deceleration of world trade in 2008, the level of world import volume has remained well below trend. In 2012 world as well as developed economies' total imports are projected to decline (Figure 12) (UN,2012).

The impact of the crisis on the Indonesian economy has been, however, insignificant, at least until the early 2012. Thank to fiscal stimulus accompanied with solid banking sector and domestic macroeconomic stability, Indonesia managed to increase its economic growth rate from 4.5% in 2009 to 6.1% in 2010 and further to 6.5% in 2011. Earlier, UN (2012) expected that if the condition of EZ economy does not become worst than it is until the end of 2011, Indonesia would have a slightly lower economic growth at 6.3% in 2012. But as time went on since January 2012, the crisis tends to become more serious, and in June 2012 Goldman Sachs (Kompas, 22 June 2012) issued its most recent prediction showing that Indonesian economy will grow much lower at 5.4 per cent by the end of 2012 (Figure 13).

By the end of 2011 there were already stories in newspapers that Indonesian exporters for certain products started to feel the impact. According to the Indonesian Association of Entrepreneurs (API), all their members as producers and exporters of textile and garment claimed that until the end of 2011 they have not yet received orders from Europe. In a normal situation, they usually get orders in around September and October for next year. ADB data show that Indonesia managed to keep its merchandize export to have a positive growth in 2011, although in a declining rate. But, as estimated by the ADB, it would recover in 2012 with the condition that the EZ economy does not fall further deep into a recession. In the import side, it kept growing in 2011though much lower than it was in 2010, and also expected to recover at a higher rate than the export in 2012 (Figure 14). Whereas, data from UN Comtrade show that in 2012 the growth rate of Indonesian export to Europe will drop slightly to 1.03% from 1.50% in 2011 (Table 4).

Recent data from Indonesian National Agency of Statistics (BPS) show that in March 2012 the Indonesian trade balance started to be negative and it tends to increase as export keep declining and tends at increasing rate, whereas import keeps increasing. In May 2012 export value was around 16.7 billion US$ compared to 18.3 billion US$ in the same month last year. On the other hand, import value in May 2012 was around 17.2 billion US dollar, an increase from 14.8 billion US$ in May 2011.

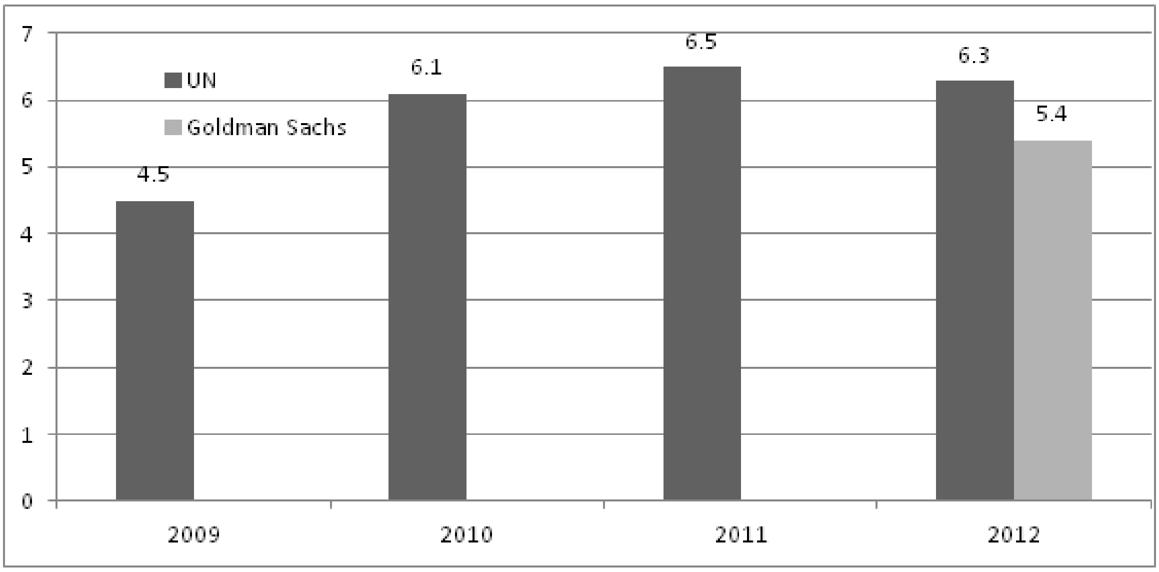

Figure 13: Indonesia's GDP Growth Rates, 2009-2012 (%).
Source: UN (2012), Goldman Sachs (Kompas, 22 June 2012)

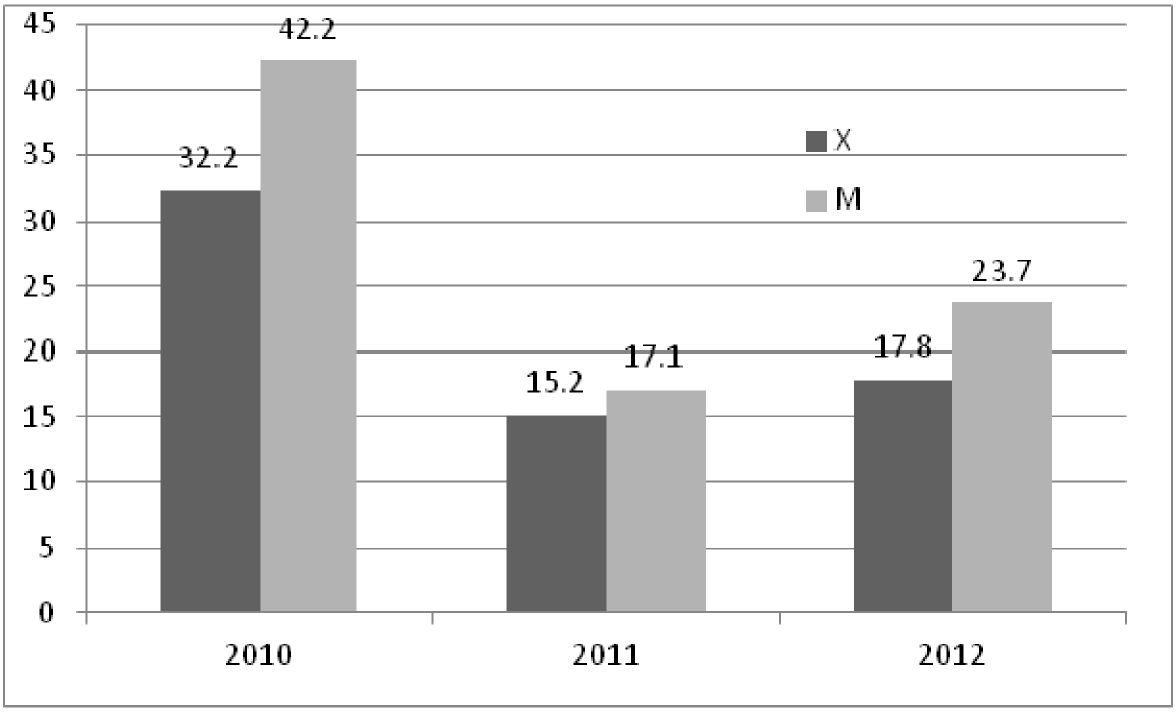

Figure 14: Growth rate of Indonesian Merchandize Exports (X) and Imports (M), 2010-2012
(% per year)Source: ADB (2011)

In fact the most concern in Indonesia about the crisis is not the direct but indirect effects of it. There is reason to expect that the direct impact of the EZ crisis on Indonesian economy would be small, namely the fact that European Union (EU) or EZ economies traditionally are not the most important market of destination for

Table 4: Real Export Growth of Indonesia by Economy of Destination, 2011-2012

Economy	**Export growth rate (%)**	
	2011	**2012**
US	1.41	1.69
Europe	1.50	1.03
Japan	-0.47	2.16
China	8.93	8.46
India	7.33	7.05
South Korea	3.67	4.14
Australia	1.69	3.10
ASEAN	5.08	5.08
World	3.83	4.21

Source: UN Comtrade.

Table 5: Distribution of Indonesian Non-oil and gas Exports by Economy of Destination, July-August 2011

Rank	**Economy**	**Share (%)**
1	China	11.95
2	Japan	11.15
3	US	10.0
4	India	8.44
5	Singapore	7.18
6	Malaysia	5.84
7	South Korea	4.7
8	Thailand	3.58
9	Chinese-Taipei	2.47
10	Germany	2.17

Indonesian exports. Indonesia also import much less from this region as compared to China. For the period January-July 2011, for instance, EU only contributed to around 13.3% to Indonesia's total non-oil and gas exports (Kuncoro, 2011). Among EU economies, only Germany had the largest share in trade with Indonesia. From the import-side, the share of Germany goods in Indonesian total import is only around 3%; whereas, from the export side, only about 2.1% of Indonesia's total export of non-oil and gas went to this biggest EU economy (Widyastuti and Gianie, 2010). Based on most recent official (BPS) data for the period July-August 2011, Table 5 shows that China is the biggest market for Indonesia's non-oil and gas export with around 11.95%, followed by Japan in the second position with 11.15%. Whereas, Indonesia's non-oil and gas export to France and Germany, only, respectively, 0.84% and 2.17%.

However, it is still possible that the impact of the EZ debt crisis on the Indonesian economy will be serious if the EZ debt crisis becomes worst leading Germany and France, as the biggest engine for the EZ economy to fall into a deep recession, and has significant negative impacts on big economies in the world such as the US, China and Japan, which are not only very important trading partners for Germany and France but also for Indonesia. In other words, the direct effect of the EZ crisis on Indonesian economy might be insignificant, but its indirect impact can be large.

Main factors that made the difference

By now it is well known that Indonesia was not only weathering the 2008/09 global economic crisis better than most other countries, but it was also much different than during the 1997/98 Asian financial crisis. Even during the global economic crisis, the World Bank (2009a) concludes that*, Indonesia's economy appears to be broadly back on track. Economic activity has been picking up, inflation has remained moderate, financial markets have risen, …….., having established the strong fundamentals that supported Indonesia through the global crisis*.

In comparing the Indonesian experience with the 1997/98 crisis with that with the 2008/09 crisis, the question is: was the difference because the Indonesian government's response during the latter crisis was more quick or better prepared than during first crisis, or were there other factors? Based on many studies done since the first crisis up to 2010, there are various reasons, and the most important ones are the followings:[xiii]
(1) from a regional perspective, the Indonesian economy performed well in the years before 2008 (with one of the best growth rates in Asia after the 1997/98 crisis up to 2008, particularly during the period 2005-2008);
(2) the banking sector remained in good health, which was not the case in the years before the 1997/98 crisis; although bank lending growth reduced in line with the slowing economy in 2008 and 2009.
(3) consumer prices kept stable in 2008 and 2009, especially because the national currency, rupiah, in that time did not depreciate as happened during the 1997/98 crisis. This allowed the Indonesian central bank, Bank Indonesia, to loosen monetary policy (which is important to keep consumption and hence economic growth);
(4) Indonesia's external position remained sound, the country's significant external financing obligations were being met, and foreign exchange reserves have risen slightly;
(5) Indonesia's public finances was strong (which was not the case during the 1997/98), which allowed policy makers to quickly move to offset the global downturn's effects on Indonesia with a fiscal stimulus in 2008 and 2009;
(6) also based on the bad experience of the 1997/98 crisis, cautious policies by Indonesia's government, banks, and corporations, since then have resulted in low debt levels and limited refinancing needs. The bank sheets of banks and corporate were much stronger than before the 1997/98 crisis. This served the country especially well in late 2008 and early 2009, when liquidity tightened around the world;
(7) compared with some other Asian countries, Indonesia was a relatively "closed economy", so the impact of world economic recession in 2008-09 on Indonesia was relatively small;[xiv]
(8) consumers kept spending despite the fact that banks tightened credits in late 2008. Much of this spending might also related to the election related activities. Moreover, in general, the balance sheet of households was much stronger than before the 1997/98 crisis;
(9) based on the experience of the 1997/98 Asian crisis, during the 2008/09 crisis the Indonesian government was more quick and more active in response with appropriate measures to the crisis, e.g. by providing the stimulus through fiscal and monetary policies. Also, the government's good housekeeping of years prior to the 2008/09 crisis provided it with the space to take swifter and more effective policy responses than in previous episodes of external shocks;
(10) the impact of a spike in risk aversion was muted by steady policy responses in Indonesia and the stabilising impact of co-ordinated global counter-measures on global financial markets;
(11) the income impact of the fall in commodity prices was mitigated by the fact that the preceding years had seen record high prices for these same commodities,allowing rural households to build up a savings buffer to help them smoothen out consumption spending;
(12) the global recession was of relatively short duration, so the lagged effects of the crisis were avoided;

CONCLUSION

Since mid 1990s, Indonesia had experienced two economic crises, namely the 1997/98 Asian financial crisis and the 2008/09 global economic crisis, and currently is facing another yet ongoing one, the euro-zone (EZ) debt crisis. This paper has explained the nature of these crises and their main channels through which they affected Indonesian economy, especially its trade, and examined empirically the Indonesian trade response to the crises.

The discussion in this paper suggests that trade response to a crisis will depend on how the crisis affects exporting and importing firms, and the effects on the firms, in turn, will depend on the nature/type and main channels of the crisis. The nature of the 1997/98 Asian financial crisis was a currency crisis and its initial channels were trade (affected exporting and importing firms) and finance (affected foreign indebted firms). But the crisis developed into a banking crisis which added a new channel namely bank credit/trade finance. The nature of the 2008/09 as well as the EZ crises, on the other hand, was a world demand crisis and their initial channel was export demand. Those two crises did not lead Indonesian national currency and its banking sector to collapse. Of course, it is not impossible, that if export collapses significantly, while import keeps constant, trade balance will fall into a big deficit which leads national currency to depreciate with further consequences as happened during the 1997/98 crisis. But, one thing is obvious that there is no "homogenous trade response' to different types of economic crises, at least in the short-run (i.e. initial effects).

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Endnotes

I. As shown in Rajan (2001), the collapse of the rupiah and of other regional currencies. e.g. Thai bath and Korean won was primarily caused by reversals in capital flows from the banking sector rather than by reversals in portfolio equity investments.

II. Of course with the assumption that domestic prices (in rupiah) of imported goods and foreign prices (in US dollar) of Indonesian exported goods are free to move (i.e. no fixed price regulation), the price elasticities of demands for import and export are non-zero, and other determinants of import and export are constant. For theoretical discussions of the impact of a currency depreciation/devaluation on trade (export and import), see, among many others, Talvi (1997), Obstfeld and Rogoff (1995), Obstfeld (1986, 1996, 1997), Kenen (1996), and Krugman (1979, 1996).

III. The 1997/98 Asian financial crisis which was also known as the Southeast Asian currency crisis has inspired widespread interest in currency-crisis models and their economic policy implications. Just few months after the crisis occurred, many studies have been done, both the descriptive studies about the crisis, or studies on individual-hit Southeast Asian economies like Indonesia, Thailand, South Korea, and the Philippines. Among those studies are Fingerand, et al. (1999), Radelet and Sachs (1998a,b), World Bank (1998), Berg (1999) and Rajan (2001).

IV. This is usually an empirical question, and in the literature it is referred to as the J-curve effect, although evidence on the (short-run) response of the trade balance supporting the J-curve effect is mixed. See, e.g. a survey of literature by Stučka (2004).

V. Theoretically, financial condition of the Indonesian government which borrowed a lot of money from abroad would also deteriorate as rupiah depreciates. However, during that crisis, the impact on domestic production and employment was not evident. Even, during the crisis the government could increase its expenditure on fuel, health and education to mitigate the impact of the crisis on the poor. A large part of the increased expenditure was from loans provided by the International Monetary Fund (IMF).

VI. Although trade credits are self-liquidating, typically backed by receivables, with low transfer and convertibility risks, they often collapse during banking crises (Mora and Powers, 2009). According to Thomas (2009), one reason may be that trade credits often involve only a limited relationship between the company and the bank. In the height of a crisis in an economy, banks typically reduce overall economy exposure following a decision to cap an institution’s economy limit.

VII. Since the crisis, many studies have been conducted with the aim to examine the likely impacts of the crisis on many economies, especially in the developing world. See for instance, Baldwin (2009), Chhibber, et al. (2009), Griffith-Jones and Ocampo (2009), IDS (2009), Escaith and Gonguet (2009), and Obstfeld and Rogoff (2009)

VIII. Details discussion on these problems can be seen, for instance, in Johnson (1997); World Bank (1998); Cole and Slade (1998), and Firdausy (1999, 2000).

IX. See also such as Corsetti (1998), Corsetti et al. (1999a,b, 2001) and Chinn and Kletzer (2000) in their analyses about the significant importance of the banking collapse in determining the seriousness of the 1997/98 Asian financial crisis. Specifically on the linkages between trade volumes and trade financing/credit, see, e.g. Ronci (2004), IMF (2005), and Thomas (2009).

X. See, among many others, Rose and Spiegel (2010), WTO (2010) Akyüz (2011), Neto and Romeau (2011) and Tambunan (2011)..

XI. See, for instance, ADB (2009), Khor and Sebastian (2009), and Tambunan (2011)..

XII. In Indonesia (as in many other Asian developing economies), in these export oriented industries, many small and medium enterprises are involved in subcontracting production arrangements with large enterprises, either domestic or foreign companies. In addition, workers in these industries are served by many informal and formal establishments such as transportation and food and catering, among others.

XIII. See also, World Bank, (2009b, 2010) Djaja (2009), Zavadjil (2009), and ADB (2009, 2010a,b).

XIV. In his study, Djaja (2009) shows that the share of Indonesia’s exports to GDP was 29.4 per cent in 2007. The figure in the next three quarters of 2008 was 30.0 per cent on average. About 85 per cent of goods and services produced by Indonesian economy were used domestically in 2005, while only about 15 per cent went to foreign buyers. This indicates that Indonesia is not so strongly integrated with the rest of the world, at least from an export point of view. With such low exports, a sudden drop in world income and hence in world demand for Indonesian exports will not affect significantly domestic production.

[i]As shown in Rajan (2001), the collapse of the rupiah and of other regional currencies. e.g. Thai bath and Korean won was primarily caused by reversals in capital flows from the banking sector rather than by reversals in portfolio equity investments.

[ii]Of course with the assumption that domestic prices (in rupiah) of imported goods and foreign prices (in US dollar) of Indonesian exported goods are free to move (i.e. no fixed price regulation), the price elasticities of demands for import and export are non-zero, and other determinants of import and export are constant. For theoretical discussions of the impact of a currency depreciation/devaluation on trade (export and import), see, among many others, Talvi (1997), Obstfeld and Rogoff (1995), Obstfeld (1986, 1996, 1997), Kenen (1996), and Krugman (1979, 1996).

[iii]The 1997/98 Asian financial crisis which was also known as the Southeast Asian currency crisis has inspired widespread interest in currency-crisis models and their economic policy implications. Just few months after the crisis occurred, many studies have been done, both the descriptive studies about the crisis, or studies on individual-hit Southeast Asian economies like Indonesia, Thailand, South Korea, and the Philippines. Among those studies are Fingerand, et al. (1999), Radelet and Sachs (1998a,b), World Bank (1998), Berg (1999) and Rajan (2001).

[iv]This is usually an empirical question, and in the literature it is referred to as the J-curve effect, although evidence on the (short-run) response of the trade balance supporting the J-curve effect is mixed. See, e.g. a survey of literature by Stučka (2004).

[v]Theoretically, financial condition of the Indonesian government which borrowed a lot of money from abroad would also deteriorate as rupiah depreciates. However, during that crisis, the impact on domestic production and employment was not evident. Even, during the crisis the government could increase its expenditure on fuel, health and education to mitigate the impact of the crisis on the poor. A large part of the increased expenditure was from loans provided by the International Monetary Fund (IMF).

[vi] Although trade credits are self-liquidating, typically backed by receivables, with low transfer and convertibility risks, they often collapse during banking crises (Mora and Powers, 2009). According to Thomas (2009), one reason may be that trade credits often involve only a limited relationship between the company and the bank. In the height of a crisis in an economy, banks typically reduce overall economy exposure following a decision to cap an institution's economy limit.

[vii]Since the crisis, many studies have been conducted with the aim to examine the likely impacts of the crisis on many economies, especially in the developing world. See for instance, Baldwin (2009), Chhibber, et al. (2009), Griffith-Jones and Ocampo (2009), IDS (2009), Escaith and Gonguet (2009), and Obstfeld and Rogoff (2009)

[viii] Details discussion on these problems can be seen, for instance, in Johnson (1997); World Bank (1998); Cole and Slade (1998), and Firdausy (1999, 2000).

[ix]See also such as Corsetti (1998), Corsetti et al. (1999a,b, 2001) and Chinn and Kletzer (2000) in their analyses about the significant importance of the banking collapse in determining the seriousness of the 1997/98 Asian financial crisis. Specifically on the linkages between trade volumes and trade financing/credit, see, e.g. Ronci (2004), IMF (2005), and Thomas (2009).

[x]See, among many others, Rose and Spiegel (2010), WTO (2010) Akyüz (2011), Neto and Romeau (2011) and Tambunan (2011)..

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