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An Analysis of the Philippine Offensive and Defensive Interests in the Non-agricultural Sector: Inputs to the Philippine-European Union Free Trade Agreement

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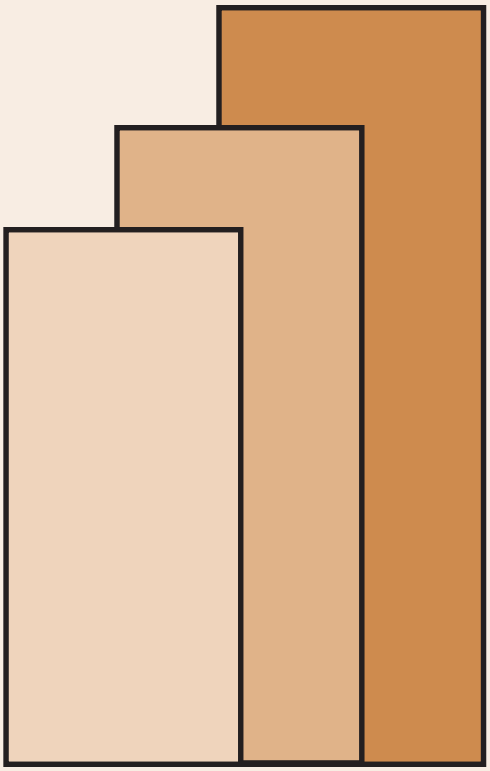

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PH-EU Research Project
PASCN PIDS

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Abstract

In drawing up the negotiating stance of the Philippines in light of the Philippine-European Union, it is important to articulate its offensive and defensive interests. Indications of the offensive and defensive interests can be gleaned from standard measures of competitiveness as well of complementarities of the partners. However, in operational terms, negotiators would require analysis that is carried out at more specific tariff levels. This paper proposes the framework to generate different offensive and defensive lists of commodities in the non-agricultural sector as input to the Philippine negotiators. Because the criteria that is used in generating the offensive and defensive lists is purely economic in nature, the negotiators are expected to weigh in the political and non-economic criteria to determine the final lists of for negotiations in the PH-EU FTA.

Keywords: trade, trade policy, free trade agreement, Philippine manufacturing, offensive interest

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An Analysis of the Philippine Offensive and Defensive Interests in the Non-Agricultural Sector: Inputs to the Philippine-European Union Free Trade Agreement

By: George Manzano[1], UA&P

1. Introduction

The task of exploiting market opportunities worldwide has become even more compelling in the light of tighter world market conditions. With the WTO Doha in the doldrums, expanding market access will likely come from either unilateral moves on the part of individual countries or preferential trading agreements. So far, the trend has been more of the latter. More specifically, the Philippines, continues to play an active role in FTA negotiations in concert with the ASEAN.

One of the advantages of the multilateral trade negotiations for small developing countries is the provision of the Most Favored Nation (MFN) clause, where any concession that a WTO member accords to another member is extended to all members. Because such MFN treatment is not present in FTA negotiations, one of the risks faced by small developing countries in bilateral dealings with much larger and powerful partners, like the European Union, is the asymmetry in negotiating resources among the parties. This seems to be the case in the PH-EU FTA setting. Hence, there is a greater need for policy research prior to the negotiations in the different components of the agreement. This research work is designed to provide inputs to Philippine negotiators in the area of manufactured products, or broadly the non-food and non-agriculture sectors in the trade in goods component.

The articulation of the offensive and defensive interests is essential in preparing for trade negotiations. In many cases, the identification of such interests is the result of a process of consultations with all stakeholders. Indeed, there are legal provisions that public hearing be conducted on any proposal to alter the Philippine Customs and Tariff Code. To the extent that FTAs alter existing tariffs through the preferential treatment and other provisions, any proposal to modify tariff as a result of negotiations with FTA partners have to undergo consultations. The process of consultation inevitably incorporates the political dimension. In fact, once the offensive and defensive interests are substantially established, oftentimes after debates, then the negotiators can be said to have sufficient mandate to negotiate.

Of course, trade policy formulation, in the context of an FTA, does not operate in a vacuum. Nor are negotiation objectives solely determined from purely political considerations. Hence, there is great need for inputs in trade policy design. This research paper is essentially an input to the determination of the offensive and defensive interests of the Philippine in the non-food and non-agriculture sectors in the trade in goods component. The specific inputs are operationalized in

[1] The author wishes to acknowledge the valuable research assistance of Kristine Joy Martin.

terms of identification of the commodities at the specific tariff line for inclusion to the PH offensive and defensive list for negotiation with the EU counterpart.

Objectives and Significance of the Paper

In drawing up the negotiating stance of the Philippines for the PH-EU FTA, it is helpful to have an indication of the relative competitiveness of the partners involved. Measures of comparative advantage, especially carried out at a broad sectoral level, could give indications of the offensive and/or defensive features of each partner. Such measures, if calculated at the more detailed commodity classification, could guide negotiators in ascertaining the offensive interests in the FTA.

There are, of course, other information that could be gathered from an analysis of standard indicators which could be useful for FTA negotiations. For instance, these indicators could distinguish whether the economic structures of EU and the Philippines are competitive or complementary. The finding is important in terms of assessing the merits of an FTA. The adjustment costs are presumably higher when the partners have trading sectors, which are competitive or similar. On the other hand, partners that have complementary economic structures should be easier to negotiate as the potential displacement from FTA induced competition is relatively less.

There are two main parts of this paper.

Issue 1: Competitive Landscape between the Philippines and European Union. To determine, using standard trade indicators, the sectors where the Philippines and the EU, respectively, have comparative advantage in? To investigate the extent to which the economic/trading structures of the Philippines and EU are competitive or complementary.

The ultimate objective of the paper is to identify the specific commodities where the Philippines can be said to have offensive and defensive interests in the context of a PH-EU FTA negotiation. The contents of such lists are by no means the definitive commodities for which PH negotiators will strive to target. Rather, the paper will set up *potential* offensive and defensive items in the manufacturing sector according to a set of economic criteria as *input* to the Philippine negotiators. However, because the political and non-economic considerations are beyond the scope of this research paper, and something that negotiators can solely decide, this paper will only consider the economic criteria. It is expected that the negotiators weigh in the *political and other non-economic criteria* in determining the final offensive and defensive lists in the Ph EU negotiations. To the extent that the paper will provide an economic framework

Issue 2: To determine the non-food, non-agricultural commodities, on a line-by-line basis, that could constitute the offensive and defensive interests of the Philippines in the non-food and non-agricultural sectors. The process of identifying the commodities will be based on economic criteria.

Limitations of the Paper

The common thread that links the different issues would be the identification of commodities or products, particularly in the non-food and non-agricultural sector, where the Philippines have potential offensive and defensive interests in the context of a PH EU FTA. However, there is no single overarching framework that ties up all the issues analytically in this paper. In fact, different methodologies are employed in resolving the issues raised. Thus, the different issues should be taken as different 'windows' in understanding the dynamics of the offensive and defensive interests.

The trade barrier that is addressed in the paper is primarily the tariff measure. Tariffs are transparent, easily measurable, and generally available. However, it is true that non-tariff measures (NTMs) can also restrict trade and therefore can pose as barriers too. Because NTMs can take a number of forms, and are not easily measurable, they are less transparent than tariffs. They are also more problematic in the sense that though a number of NTMs have legitimate functions, these could be abused for protectionist purposes. One limitation of this paper is that it does not address non-tariff measures.

The coverage of 'manufacturing' sector in this paper is taken in the broader sense of those that are neither in the agriculture or the food sectors. Adopting this coverage departs from the strict notion of 'manufacturing' which is "the physical or chemical transformation of materials, substances, or components into new products. The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities. Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing…" (UN 2008). However, because the agriculture and food sectors are closely intertwined, they could be lumped together in a broad category. Thus, in terms of policy research, it would be more convenient to address agriculture and food sectors under the ambit of agriculture negotiation. Besides, following the Philippine Standard Commodity Classification (PSCC), which in turn, follows closely the Harmonized Commodity Description and Coding System (HS), the two digit classification refers to chapters. This paper follows the convention followed by the Philippine Tariff Commission in grouping the different chapters in the PSCC, as follows:

Table 1. Philippine Standard Commodity Classification

SECTOR	HS CHAPTER (1^{ST} and 2^{nd} digits of the PSCC)
Agriculture & Food	01-24
Chemical & Chemical Products	25-40
Textiles, Paper, Wood & Leather	41-64
Base Metals & Non- Base Metals	65-83
Machinery & Transport Equipment	84-97

Source: Philippine Tariff Commission 2012

2. Issue #1: Competitive Landscape between the Philippines and European Union

To determine, using standard trade indicators, the sectors where the Philippines and the EU, respectively, have comparative advantage in? To investigate the extent to which the economic/trading structures of the Philippines and EU are competitive or complementary

Employing measures of economic complementarities could be a useful input in analyzing the merits of a PH-EU FTA from a strategic perspective. Part of the thrust of the EU trade strategy (Communication "Global Europe: Competing in the World" in 2006) is to engage in regional trading arrangements, partly as a response to the lack of progress in the Doha Development Agenda of the World Trade Organization, and also to create new market access in concern with the rest of the world's proclivity to forming preferential trading agreements. As of June 2012, there are already 126 concluded FTAs (99 of which are effective). As the FTAs continue to proliferate, there is the risk that countries that do not have any preferential trading arrangements will be shut out of the "loop" and consequently, miss out on many trade opportunities. From the strategic angle, an analysis of the different FTAs that EU has forged can give an indication on to what extent the EU trade to the Philippines could be deflected for a lack of PH-EU FTA in the context of the current and future FTA partnership with the EU. Especially in the light of the EU crisis where protectionist tendencies arise, this analysis can also temper the belief that FTAs are just the best means for EU to secure markets during this time of widespread market uncertainty.

Comparative Advantage Analysis

One standard approach in analyzing a potential FTA is to determine the revealed comparative advantage of the countries involved. Even though RCA provides easy computation and intuition on market competitiveness, the indicator still has limitations. For one, it relies on static information (data in the past) to measure a market's competitiveness. It also does not consider the comparative advantage of a country due to presence of policy instruments such as subsidies, etc. Albeit such restrictions, the use of RCA analysis has been established on international economics literature. Majority of the studies use the analysis to analyze patterns on exports.

In previous researches, RCA measures are used simply to observe changes on the export patterns of countries. A great number of these studies use data on export shares hence employ the Balassa index. One of the first attempts to relate the comparative advantage to export patterns is done by Yue (2001). Yue uses the RCA index to show that China changes its export pattern to coincide with its comparative advantage and that the export patterns in the coastal regions and interiors of China differ. Bender and Li (2002) on the other hand study the structural performance, changes in export patterns and revealed comparative advantage of the East Asian and Latin American regions within the time frame 1981-1997. It tries to examine whether a relationship exists between changes in export pattern among different regions and shifts in comparative advantage between regions. The Vollrath (1991) index, which captures double counting in world trade, has been used for their analysis. Fertı and Hubbard (2002) evaluates the

competitiveness of Hungarian agriculture relative to EU using 4 indices of revealed comparative advantage namely the original Balassa index, relative trade advantage, relative export advantage, logarithm of the relative export advantage and relative competitiveness. The classification of indices as cardinal (identifies the extent to which a country has comparative advantage/disadvantage), ordinal (provides a ranking of products by degree of comparative advantage), and dichotomous (a binary type demarcation of products based on comparative advantage/disadvantage) has been considered in their study. The results show that the "indices were less cardinal in identifying whether Hungary has a comparative advantage in a particular product group, but were useful as a binary measure of comparative advantage." Leu's paper (1998) examines the systematic shift of comparative advantage in East Asian economies. Its results show that the relationship between comparative advantage and the level of development remains true. Batra and Khan (2005) test the complementarity or competitiveness between China and India using the standard Balassa RCA measure. They found out that in spite of the similarity in structure of the countries' comparative advantage, the degree of competition nonetheless shows that there is no correlation between the manufacturing sectors of India and China in the global economy. Meanwhile, a complementary relationship between the two markets exists in the labor and resource intensive sectors.

Using RCA analysis to determine the complementary or competitiveness of two countries leads some authors to adopt RCA measures in the context of FTA partnerships. Although this is a young branch in trade literature, RCA has already been used as a tool to analyze potential FTAs, evaluate FTA proposals and improve existing FTAs. Moreover, it has also been used to estimate the standard comparative advantage of each country/ region and bilateral comparative advantage between two countries/ two regions/ between a region and a country. In an analysis of a potential Korea-Chile FTA for instance, Balassa RCA is used to determine the export lines to be liberalized in a potential FTA between Korea and China (Tradesift 2012). The study first asserts that the success in trade negotiation requires the preparedness of each partner in accepting increased imports in many types of goods. Thus, from the standpoint of a negotiation, success is most likely achieved when the partners do not hope to expand exports in the same industries, i.e., when the partners differ in comparative advantage products. Having emphasized this point, the study proceeds in examining the bilateral comparative advantage of each country using the BRCA analysis. Based on the results, Korea and Chile have complementary market structures. While the Republic of Korea enjoys strong comparative advantage in manufacturing, Chile has strong comparative advantage in agricultural products. It is concluded therefore, that the reciprocal liberalization would most likely expand trade along the export lines with comparative advantage and are complementary. But it will have a minimal impact on protected domestic producers. Furthermore, the study also used the SRCA measure in order to assess whether the FTA will result in trade diversion. Fortunately, the findings show that each country is highly competitive in their respective comparative advantaged sectors at the global level. As a result, the losses due to trade diversion are expected to be small relative to trade creation (ADB 2008).

Following the same approach, a report prepared for the European Commission and EU-ASEAN Vision Group in 2006 applied the bilateral RCA analysis to study a potential FTA between two regions, EU and ASEAN. In the qualitative analysis of the EU-ASEAN FTA (Consortium of Euro-Asia Centre, University of Limerick and IFRI 2006), the study examined the alignment of the designed FTA proposal to the interests2 of each region. It is found out that in general, the commodities with bilateral comparative advantage of the two regions are complementarity in nature. Hence, "Enhancing EU – ASEAN economic linkages is both possible and desirable, and the potential economic gains from further developing trade and investment flows between the two regions are many and diverse. This is because the two partners are rather complementary." (p.12) Such result echoes the conclusion of the Korea-Chile FTA case study.

The ASEAN-India FTA study conducted by Ramphul (2012), among others, examines the existing FTA between ASEAN and India and uses RCA measures to propose improvements on the partnership. It instead uses the Lafay's index to draw implications on the comparative advantage of India relative to EU. Lafay's (1992) measure as compared to Balassa index includes both exports and imports in the estimation of the comparative advantage as well.3 Lafay's index is preferred in the study in order to capture the intra-industry trade flows which have become a feature of the majority of industries. It can also control the distortions due to the macroeconomic fluctuations and can weigh each product's contribution according to the respective importance in trade. The import reliance of a country can also be measured in a Lafay's index aside from its degree of specialization. The results of the Lafay's index suggest that in the context of competition between ASEAN countries and India, India's comparative advantage is poorer than ASEAN countries. Thus, in order to benefit from the ASEAN-India Free Trade Agreement in Goods, there is a need for India to enhance its competitiveness. Furthermore, it is observed that many specialization improvements occur in Indian items for which the world demand expands at a faster pace, which hints a possibility of India having a larger share in the world exports in the future. Nonetheless, since the Lafay's index can only capture the revealed comparative advantage of a country relative to the world, the bilateral comparative advantage between India and ASEAN is not directly estimated.

The importance of determining the comparative advantage on FTA is highlighted on ADB's Manual for Free Trade Agreements (ADB Office of the Regional Cooperation 2008). It provides guidelines in designing negotiating and implementing FTAs in Asia and even included the case study of Korea-Chile FTA as a reference for future researches. As ADB (2008) pinpoints, "when all countries specialize in their "comparative advantage" products, the entire world is better off and global prosperity is maximized." Furthermore, it notes that the principle of comparative advantage forms part of the "gains from trade" argument. It explains the inherent logic of international free trade as the "first best" policy option.4 Nonetheless, ADB argues that comparative advantage needs

[2] This hints the offensive and defensive interests of the region

[3] Note that Balassa RCA index compares the national export structure with that of the world and thus focuses only on export data. Still, it can generate valuable information especially if the analysis is carried out at a high level of disaggregation

[4] one that should lead to greater welfare for all countries

to be complemented by some form of government policy at the national level. "Comparative advantage," according to them "is also a dynamic process, suggesting trade increases efficiency and prosperity, government policy at the national level plays a key role in determining to what degree each will be successful" (p. 8).

For the purpose of this study, the Balassa index will be used. The Balassa index of Revealed Comparative Advantage (RCA) gives an indication of the industries in which a particular country may have a comparative advantage in. A country is said to have a revealed comparative advantage in a good when the share of that good in the country's exports is bigger than the corresponding share of world export of that good in total world exports. In essence, the RCA is really a measure of specialization. Originally, RCA indicator measures the revealed comparative advantage of a country relative to the world (Standard RCA). It is also possible nonetheless, to determine the comparative advantage of a country bilaterally, i.e. in comparison to another country (Bilateral RCA).[5]

While the RCA indicator may hint on the complementarity or competitiveness of two economies based on the difference or similarity of the lists of bilateral comparative advantaged industries, complementarity index directly establishes the relationship of two economic structures. In Tradesift analysis (2012), the complementarity index is indicated by the Finger-Kreinin (FK) index. It is a way of measuring how similar two sets of numbers (exports for instance) are and hence, in principle, can be used to capture the difference on the import patterns of two countries from a common source. It can also be employed in order to compare the similarity between the structures of two countries' export patterns to a common destination.[6] This latter version of the indicator is convenient in considering the overall similarity[7] of the exports of two countries, and

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[5] $RCA_{iw}^{k} = \left(\frac{x_{iw}^{k}}{X_{iw}}\right) \Big/ \left(\frac{x_{ww}^{k}}{X_{ww}}\right)$ where x^{k}_{iw} is country i's export of commodity k to the world while capital X refers to country i's total exports. The denominator changes depending on the comparator, which may be relative to the world or to another country. If the measure is standard, the denominator will be exports of commodity k to the world divided by the total exports to the world; if bilateral on the other hand, it will be the country j's export of commodity k to the world divided by the total exports of country j. An indicator greater than 1 entails comparative advantage, while a negative value implies disadvantage. (Tradesift 2012)

[6] The mathematical formulae for the FK index are as follows:

By Common Destination: $FK_{i_1 i_2 j} = \sum_{k} min\left[\left(\frac{x_{i_1 j}}{X_{i_1 j}}\right), \left(\frac{x_{i_2 j}}{X_{i_2 j}}\right)\right]$

By Common Source: $FK_{i j_1 j_2} = \sum_{ik} min\left[\left(\frac{x_{i j_1}}{X_{i j_1}}\right), \left(\frac{x_{i j_2}}{X_{i j_2}}\right)\right]$

In the FKI by destination, i_1 and i_2 to the two source countries and j to the destination country, x^{k} refers to the trade flow in product k; X to the total trade flow, so x^{k}_{i1j}/X_{i1j} is the share of product k in country i's total exports to the destination partner (j). x^{k}_{i2j}/X_{i2j} is the share of product k in the comparator country's (i_2) total exports. An index equals to 1 means perfect similarity in export structure relative to a common destination while an index equals to 0 means perfect complementarity. In the FKI by source, there is a single source country i and two destination partners, j_1 and j_2. In both cases shares by product in the total trade flow are being compared. (Tradesift 2012)

therefore their degree of competitiveness or complementarity either with respect to particular markets, or with respect to their trade with the world. It is an applicable and useful measure in the context of regional trade agreements. Not only does it provide extrapolation on the likely effect on partner countries, it also shares valuable insight on the likely impact on the excluded countries.

Both the RCA indicator and the FK index are employed in this study to draw out the competitive landscape between the Philippines and the EU. This study uses the 2-digit and 6-digit commodity code trade data of each country in 2011 gathered from the UN Comtrade organization. The commodities are furthermore classified into agricultural (HS chapters of 01-24) and manufacturing8 goods (HS chapters of 25 and beyond) so that the competitiveness of the broadly classified sectors can be estimated. To ensure the availability and generality of data for EU, EU is treated as a bloc composed of 27 member countries.9

At a very aggregated level of analysis (2-digit code classification), the revealed comparative advantage of the Philippines relative to the world are in 25 export commodities– 9 of which are agricultural and 16 of which are manufacturing commodities. Agricultural commodities with RCA include meat and aquatic commodities, tobacco products and fruits and vegetable products such as fruits, sap, oil and plaiting materials. Manufacturing commodities with RCA on the other hand, consist of wood, chemicals, apparel, ships, copper and electrical machinery products. Although it may seem that the Philippine's comparative advantage relative to the world primarily lies on manufacturing commodities, in terms of number of 2 digit sectors, the degree of the comparative advantage of agricultural commodities cannot be overlooked. As seen in Figure 1, wherein the y-axis reflects the degree of the comparative advantage of each commodity placed in the x-axis, the comparative advantage of almost all agricultural commodities with comparative advantage (1st 9 commodities from the left) has a magnitude greater than or equal to 2. Conversely, only 6 manufacturing commodity groups have such magnitude (Code: 44, 46, 67, 74, 85 and 99).

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[7] As compared to the complementarity index which gives detailed complementarity or competitiveness of each sector, the FK index just draws the overall structure of a country's economy relative to another.

[8]Manufacturing goods are treated loosely as non-food and non-agricultural goods

[9] Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom

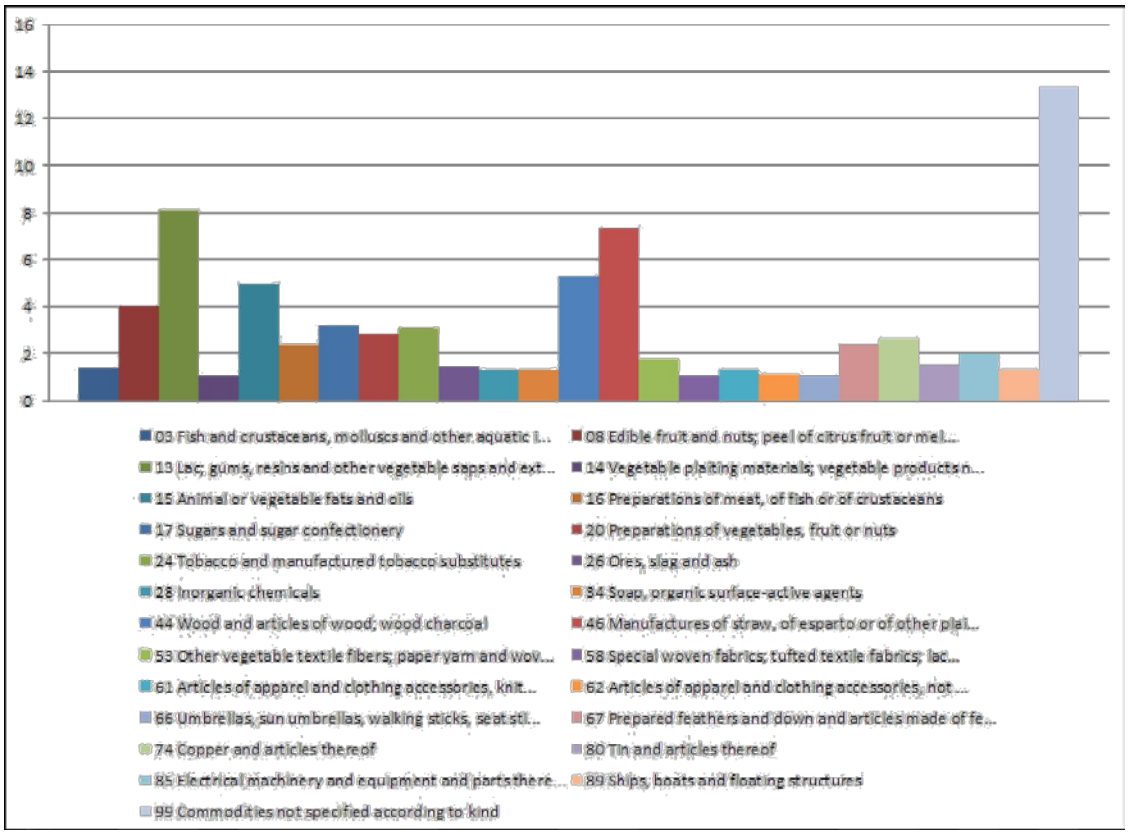

Figure 1. Philippine SRCA with the World, 2011

Source: Tradesift calculation based on UN Comtrade data 2012

EU's revealed comparative advantage relative to the world follows almost a similar pattern. It has more sectors identified with having comparative advantage in manufacturing than in agricultural. Out of the 40 commodities which the bloc has a revealed comparative advantage in (Figure 2), only 8 commodities are agricultural. These include live animals, dairy products, products of milling, cocoa, preparation of cereals and other edible preparations, beverages, spirits and vinegar and tobacco. The manufacturing goods with comparative advantage meanwhile vary from organic and miscellaneous chemicals, pharmaceutical products, dye, essential oils and soap; glue, ceramic products, articles of stones, pearls, furniture and works of art; articles of iron and steel and base metal, utensils and explosives; optical and non-optical photographic and cinematographic goods, paper and printed materials; vegetable textile, cork, wool, fur skins, special yarns to machinery, railway locomotives and other vehicle and aircraft. Unlike the Philippine's agricultural commodities with SRCA nevertheless, the degree of the comparative advantage of the agricultural commodities of EU in sum is not greatly significant. In fact, only one of them has an RCA exceeding a value of 2, i.e. beverages. Such magnitude of the comparative advantage of agricultural goods highlights the idea that EU's comparative advantage lies more on manufacturing

commodities, especially on pharmaceutical products, essential oils, fur skins, cork, works of art and aircrafts.

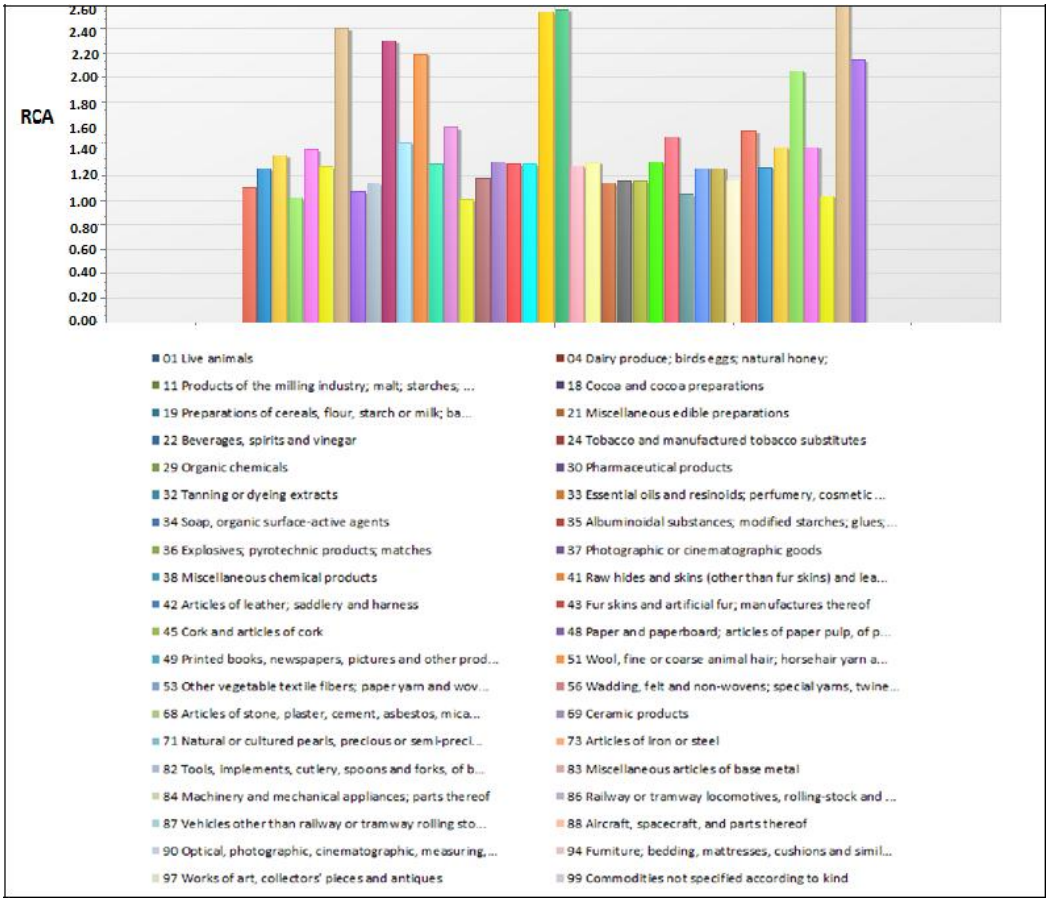

Figure 2. EU27 SRCA with the World, 2011
Source: Tradesift calculation based on UN Comtrade data 2012

A comparison of figures 1 and 2 suggests that the Philippine's and EU's revealed comparative advantage to the world differs considerably. Tobacco (agricultural commodity), soap and other vegetable textile (manufacturing commodities) are the only commodities which both countries have in common. Nonetheless, it is not enough to draw the complementarity of the two countries from the resulting SRCA lists. SRCA calculation only compares the export capacity of one country with respect to the rest of the world. For the purpose of finding out the competitive landscape between Philippines and EU, BRCA index is a better measure. As compared to the standard revealed comparative advantage (SRCA) calculation which determines the comparative advantage of a country in comparison to the world, a BRCA calculates the comparative advantage of a country relative to another country. This sort of information is very pertinent in considering trade

policy such as free trade agreements for it can shed light on the extent to which a proposed agreement is more or less likely to be welfare/GDP increasing or reducing. It can identify export opportunities which a negotiating party can emphasize in a partnership. Lastly, by knowing the bilateral revealed competitiveness of your partner country beforehand, the reporter country will know which proposals favor his defensive interests and thus are acceptable.[10] Figure 3 summarizes the list of Philippine commodities in 2011, which has a BRCA vis-à-vis EU at a 2-digit commodity level. Similar to its SRCA list, Philippines BRCA includes crustaceans, edible fruits and its preparation, gums, plaiting materials, animal or vegetable oils, preparation of meats or crustaceans, sugar and tobacco; ores, inorganic materials, soap, wood, straw, vegetable textile fibers and special woven fabrics, articles of apparel, umbrellas, prepared feathers, copper and tin and articles thereof, electrical machinery and ships. The BRCA list furthermore contains three commodities which Philippines do not usually have a comparative advantage when compared to the rest of the world, i.e. in the SRCA. They are inorganic chemicals, pulp of wood and toys and sport requisites. In sum, the Philippines' bilateral comparative advantage relative to the EU is in 28 commodities[11] (electrical machinery being one of them). Moreover, the country's bilateral comparative advantage measures have greater magnitudes. The highest BRCA value of the commodities is 50, implying that the bilateral revealed comparative advantage in such good, straw, is unquestionable. Lastly, though the number of agricultural commodities with BRCA is lesser than in manufacturing, inspecting the RCAs of the two broadly classified sectors closely shows that the BRCA values of agricultural commodities are greater in magnitude compared to most of the manufacturing goods (i.e. except for ores, straw and prepared feathers) with BRCA. This suggests that the country's bilateral comparative advantage with EU is in the enumerated agricultural goods rather than in manufacturing.

[10] The Bilateral Revealed Comparative Advantage has a formula of:

$$BRCA1_{ijw}^{k} = \left(\frac{x_{iw}^{k}}{X_{iw}}\right) \Big/ \left(\frac{x_{jw}^{k}}{X_{jw}}\right)$$

where the numerator is the share of commodity k in the total exports of country i to the world while the numerator is the share of commodity k in the total exports of another country, country j, to the world. (Tradesift 2012)

[11] The BRCA of Philippines to EU is "SRCA (9 +16) + 3"; meaning the Philippine SRCA list of 9 agricultural commodities and 16 manufacturing commodities together with an addition of three manufacturing goods, inorganic chemicals, pulp of wood and toys and sport requisites

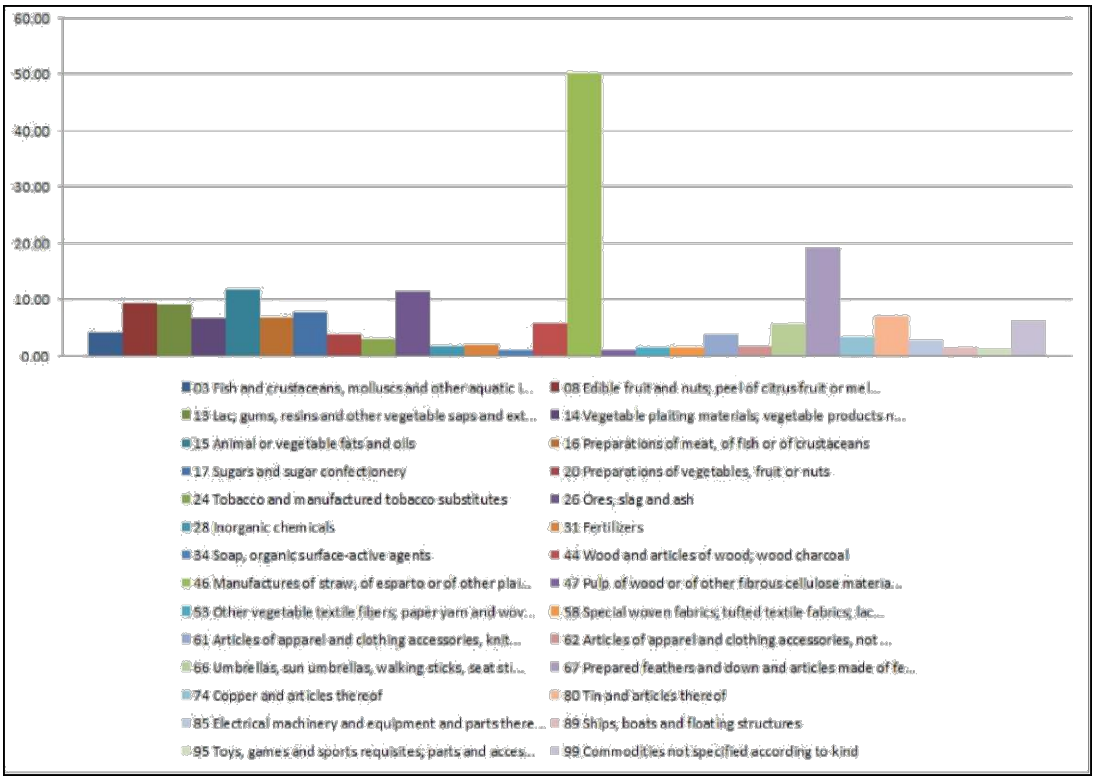

Figure 3. Philippine BRCA with EU 27, 2011

Source: Tradesift calculation based on UN Comtrade data 2012

The greater bilateral comparative advantage (in terms of magnitude) of the Philippines in agricultural commodities is highlighted by a 6-digit level of BRCA analysis (See Appendix 1 for the complete list of the 6-digit level Philippine BRCA). A portion of which is presented in Table 1. Table 1 ranks the top 10 Philippine commodities (6-digit code) with BRCA relative to EU, according to the degree of the comparative advantage. In the list, 9 out of the 10 commodities with bilateral comparative advantage are agricultural products. These are oil-cake, coconut oil and desiccated coconuts, cane molasses and cane sugar, yellow fin tunas and bananas. While most of these agricultural commodities' BRCA values are around 1,000 to 2,000, the BRCA value of oil cake and crude coconut oil are remarkable: 54, 682 and 17,139 respectively. An identical note can be said to their share in the Philippine total export value to the world. Oil-cake contributes 12.24% while crude coconut oil makes up 2%. Many of the high BRCA of the Philippines are in products that EU does not produce, eg. coconuts. Nevertheless, this advantage is minimized by the (1) EU's substitutes to some agricultural based products such as other vegetable oils; and by (2) the NTMs in EU on agriculture goods coming from the Philippines, affecting 6.6% of the total Philippine agricultural exports to EU, e.g. Authorization to protect wildlife (CITES) NTM (6175) on other live animals, soups and broths (UNCTAD TRAINS as cited by Pasadilla and Liao 2007). Unfortunately, the effect of substitutes and NTMs are not captured in a simple RCA analysis.

Table 2. RCA value and Export share of the Top 10 PH BRCA with EU in 2011,
6-digit, all commodities
(Listed according to RCA)

Product	Product Name	BRCA	% to total EX to the World (in value)
230650	Oil-cake & oth. solid residues, whether or...	54,682	12.24
151311	Coconut (copra) oil, crude	17,139	2.00
261690	Precious metal ores & concs. (excl. silver ores & ...	2,519	0.45
170310	Cane molasses	1,840	0.06
080111	Coconuts, desiccated	1,564	0.60
170111	Cane sugar, raw, in solid form, not cont. …	1,424	0.74
080300	Bananas, incl. plantains, fresh/dried	1,406	0.00
030232	Yellowfin tunas (Thunnus albacares)…	1,344	0.01
200820	Pineapples, prepd./presvd., whether or not..	1,250	0.40
151319	Coconut (copra) oil, other than crude, &…	783	0.96

NOTE: The complete list of the Philippine commodities with bilateral comparative advantage against EU is seen in Appendix 1
SOURCE: Tradesift calculation based on UN Comtrade, 2012

Focusing on the bilateral RCA values of manufacturing commodities (6-digit) alone can furthermore tell the difference in the amount of comparative advantage present in agricultural vis-à-vis manufacturing commodities. Table 2 shows the top 13 manufacturing commodities, ranked according to their BRCA value, which Philippines has bilateral comparative advantage in against EU in 2011. It also includes each commodity's share to the total Philippine export value. From the table, one can deduce that the BRCA value of all manufacturing products except for precious metal ores is below 600; a magnitude far below than that of the agricultural commodities presented on the previous table.

Table 3. RCA value and Export Share of the Top 13 Philippine manufacturing commodities with BRCA against EU in 2011,

6-digit

(Listed according to RCA)

Product	Product Name	RCA	% to total EX to the World
261690	Precious metal ores & concs. (excl. silver…	2,519	0.45
283090	Sulphides (excl. of sodium/zinc/cadmium);…	578	0.86
741022	Copper foil, whether or not printed, backed…	461	0.12
260400	Nickel ores & concs.	345	0.86
950661	Lawn-tennis balls	336	0.07
290517	Dodecan-1-ol (lauryl alcohol), hexadecan-1-…	303	0.37
670411	Complete wigs, of synth. textile mats.	300	0.07
270720	Toluol (toluene)	275	0.01
400129	Natural rubber other than latex/smoked…	223	0.16
460290	Basketwork, wickerwork & oth. arts., made…	195	0.07
382530	Clinical waste	169	0.01
890130	Refrigerated vessels (excl. of 8901.20)	145	0.33
261790	Ores & concs. (excl. of 2601.11-2617.10)	142	0.01

NOTE: The complete list of the Philippine manufacturing commodities with bilateral comparative advantage against EU is seen in Appendix 1

SOURCE: Trade calculation based on UN Comtrade data, 2012

The standard and bilateral revealed comparative advantage of countries is not guaranteed to be permanent. Patterns in the comparative advantage between countries can be affected by international shocks such as the EU crisis in 2008. Hence, an assessment of the bilateral comparative advantage between the Philippines and EU during the pre and post crisis periods can give an inkling on the robustness of a country's comparative advantage in a commodity amidst external shocks.

Tables 3 and 4 contain the list of the Philippines bilateral comparative advantage (2-digit level) to EU and vice versa in pre and post-crisis periods (2007 and 2011 respectively). Table 3 suggests that the crisis may have negatively impacted the Philippines' bilateral comparative

advantage in machinery and mechanical appliances only. This is due to the fact that it is the only commodity that does not appear on the bilateral comparative advantage list of the country in 2011. The rest of the commodities in the 2007 where the Philippines have been found to have a bilateral comparative advantage with EU are also found in the 2011 list. Moreover, commodities such as manufactures of straw, ores, prepared feathers, edible fruit, animal or vegetable oil, preparations of meat and lac gums continues to be on the top 10 list of the Philippines BRCA, ranked according to the RCA value) even after the EU crisis. Articles of apparel, electrical machinery and copper, on the other hand, were replaced by sugar, tin and vegetable plaiting materials in the top 10 in 2011.

Table 4. Philippines BRCA to EU, Pre and Post crisis

Pre-crisis (2007)		Post-crisis (2011)	
46	Manufactures of straw, of esparto or of other plaiting materials	46	Manufactures of straw, of esparto or of other plait materials
26	Ores, slag and ash	67	Prepared feathers and down and articles made of feathers or down
67	Prepared feathers and down and articles made of down	15	Animal or vegetable fats and oils
08	Edible fruit and nuts; peel of citrus fruit or melons	26	Ores, slag and ash
15	Animal or vegetable fats and oils	08	Edible fruit and nuts; peel of citrus fruit or melon
61	*Articles of apparel and clothing accessories, knitted or crocheted*	13	Lac; gums, resins and other vegetable saps and ex
		17	*Sugars and sugar confectionery*
16	Preparations of meat, of fish or of crustaceans	*80*	*Tin and articles thereof*
85	*Electrical machinery and equipment and parts thereof; recorders and r ...*	16	Preparations of meat, of fish or of crustaceans *sound*
		14	**Vegetable plaiting materials; vegetable produ**
74	*Copper and articles thereof*	**99**	**Commodities not specified according to kind**
13	Lac; gums, resins and other vegetable saps and extracts	44	Wood and articles of wood; wood charcoal
03	Fish and crustaceans, molluscs and invertebrates	**66**	**Umbrellas, sun umbrellas, walking sticks, seat whips, riding-crops**
62	Articles of apparel and clothing accessories, not knitted or crocheted	03	Fish and crustaceans, molluscs and other aquatic invertebrates
20	Preparations of vegetables, fruit or nuts	61	Articles of apparel and clothing accessories, knitte crocheted
80	Tin and articles thereof	20	Preparations of vegetables, fruit or nuts
17	Sugars and sugar confectionery	74	Copper and articles thereof
44	Wood and articles of wood; wood charcoal	24	Tobacco and manufactured tobacco substitutes
24	Tobacco and manufactured tobacco substitutes	85	Electrical machinery and equipment and parts the sound recorders and r ...
28	Inorganic chemicals	**31**	**Fertilizers**
84	**Machinery and mechanical appliances; parts thereof**	28	Inorganic chemicals
		62	Articles of apparel and clothing accessories, not k

	crocheted	
53	**Other vegetable textile fibers; paper yarn and fabric of paper yarn**	
89	**Ships, boats and floating structures**	
58	**Special woven fabrics; tufted textile fabrics; la tapestries; trimmings; ...**	
95	**Toys, games and sports requisites; parts and a thereof**	
47	**Pulp of wood or of other fibrous cellulose mat**	
34	**Soap, organic surface-active agents**	

NOTE: Text in bold are commodities with revealed comparative advantage in one year only; either in pre-crisis or post crisis depending on which column it falls into
SOURCE: Tradesift calculation based on UN Comtrade data 2012

Table 4 reports the 2-digit sectors where the EU has BRCA over the Philippines for two time periods. In 2007, EU has bilateral comparative advantage in 67 commodities. 15 are agricultural and 52 are manufacturing goods. Agricultural commodities include coffee, cocoa, cereals, preparation of cereals, beverages, live trees and other plants, vegetable plaiting materials, edible vegetable and certain roots, miscellaneous edible preparations, oil seeds, live animals, products of milling, meat, products of animal origin and residues and waste from the food industries.

On the other hand, the manufacturing commodities included in the BRCA list are nickel, iron and steel, zinc, aluminum, lead and their articles; other base metals and miscellaneous articles of base metals; cork, clocks, photographic and cinematographic goods, optical and photographic checking; vehicles and locomotives; pharmaceutical products; wool, fur skins, raw hides, silk, cotton, knitted and crocheted fabrics, special woven fabrics, essential oils and resinoids, footwear, man-made filaments, man-made staple fibers; etc. However in 2011, loss of bilateral comparative advantage in 10 commodities such as vegetable plaiting materials and textile fabrics, umbrellas, ships, soap, pulp of wood, fertilizers, rubber, woven fabrics and toys were recorded. Thus, EU's BRCA post the crisis lies in 57 commodities, wherein 14 are agricultural and 43 are manufacturing. In conclusion, the global financial crisis in 2008-2009 affected the composition of the bilateral comparative advantage of the EU more than the Philippines. According to BRCA measures, EU lost comparative advantage in more commodities than the Philippines (10 commodities as compared to 1). In the prospect of a double dip, therefore, EU is expected to lose bilateral comparative advantage in a greater number of industries.

Table 5. EU BRCA to Philippines, Pre and Post crisis

2007		2011	
45	Cork and articles of cork	86	Railway or tramway locomotives, rolling-stock an
37	Photographic or cinematographic	goods	thereof
75	Nickel and articles thereof	45	Cork and articles of cork
97	Works of art, collectors' pieces and	*88*antiques	*Aircraft, spacecraft, and parts thereof*
09	*Coffee, tea, matF and spices*	75	Nickel and articles thereof
59	*Impregnated, coated, covered or*	*laminated97 textile*	*Worksfabricsof art, collectors' pieces and antiques*
10	Cereals	10	Cereals
86	Railway or tramway locomotives,	rolling30-stockandPharmaceuticalparts	products
	thereof	37	Photographic or cinematographic goods
30	Pharmaceutical products	*41*	*Raw hides and skins (other than fur skins) and leat*
51	*Wool, fine or coarse animal hair;*	*horsehair82 yarnandTools,wovenimplements, cutlery, spoons and forks, of bas*	
	fabric	51	Wool, fine or coarse animal hair; horsehair yarn a
43	Fur skins and artificial fur; manufactures thereoffabric		
06	Live trees and other plants;	52	Cotton
41	Raw hides and skins (other than fur32skins) and leatherTanning or dyeing extracts		
82	Tools, implements, cutlery, spoons and91 forks, of baseClocksmetaland watches and parts thereof		
92	Musical instruments; parts and accessories50 of suchSilkarticles		
32	Tanning or dyeing extracts	18	Cocoa and cocoa preparations
66	**Umbrellas, sun umbrellas, walking**60**sticks, seat**Knitted**sticks,**or crocheted fabrics		
	whips, riding-crops	64	Footwear, gaiters and the like; parts of such articl
89	**Ships, boats and floating structures**92		Musical instruments; parts and accessories of suc
35	Albuminoidal substances; modified 09starches; glues;Coffee,enzymestea,matF and spices		
18	Cocoa and cocoa preparations	06	Live trees and other plants;
22	Beverages, spirits and vinegar	49	Printed books, newspapers, pictures and other pr
01	Live animals		the printing indu ...
11	Products of the milling industry; malt;43 starches; inF**u**rlinskins and artificial fur; manufactures thereof		
02	Meat and edible meat offal	01	Live animals
29	Organic chemicals	69	Ceramic products
79	Zinc and articles thereof	59	Impregnated, coated, covered or laminated textile
57	Carpets and other textile floor coverings22		Beverages, spirits and vinegar
33	Essential oils and resinoids; perfumery,35 cosmeticAlbuminoidalortoilet		substances; modified starches; glue
	preparations	79	Zinc and articles thereof
50	Silk	57	Carpets and other textile floor coverings
76	Aluminum and articles thereof	54	Man-made filaments
64	Footwear, gaiters and the like; parts72of such articlesIron and steel		
05	Products of animal origin, not elsewhere05 specifiedProducts of animal origin, not elsewhere specified		
54	Man-made filaments	11	Products of the milling industry; malt; starches; in
48	Paper and paperboard; articles of paper02 pulp, of paperMeatandorofedible meat offal		

	paperboard	38	Miscellaneous chemical products
60	Knitted or crocheted fabrics	76	Aluminum and articles thereof
38	Miscellaneous chemical products	33	Essential oils and resinoids; perfumery, cosmetic
52	Cotton		preparations
73	Articles of iron or steel	48	Paper and paperboard; articles of paper pulp, of p
49	Printed books, newspapers, pictures and other products of the printing indu ...		paperboard
		29	Organic chemicals
39	Plastics and articles thereof	90	Optical, photographic, cinematographic, measurin
88	Aircraft, spacecraft, and parts thereof		precision, med ...
70	Glass and glassware	07	Edible vegetables and certain roots and tubers
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	39	Plastics and articles thereof
		73	Articles of iron or steel
93	Arms and ammunition; parts and accessories thereof	42	Articles of leather; saddlery and harness
83	Miscellaneous articles of base metal	68	Articles of stone, plaster, cement, asbestos, mica o
72	Iron and steel		materials
07	Edible vegetables and certain roots and tubers	94	Furniture; bedding, mattresses, cushions and simi
69	Ceramic products		furnishing
71	Natural or cultured pearls, precious or semi-precious stones	70	Glass and glassware
21	Miscellaneous edible preparations	71	Natural or cultured pearls, precious or semi-preci
87	Vehicles other than railway or tramway rolling stock	25	Salt; sulfur; earths and stone; plastering materials
94	Furniture; bedding, mattresses, cushions and similar stuffed furnishing	87	Vehicles other than railway or tramway rolling st
		27	Mineral fuels, mineral oils and products of their d
65	Headgear and parts thereof	36	Explosives; pyrotechnic products; matches
12	Oil seeds and oleaginous fruits	21	Miscellaneous edible preparations
56	Wadding, felt and non-wovens; special yarns, twine, cordag , ropes and cabl ...	56	Wadding, felt and non-wovens; special yarns, twi
			ropes and cabl ...
34	**Soap, organic surface-active agents**	**84**	**Machinery and mechanical appliances; parts t**
91	Clocks and watches and parts thereof	83	Miscellaneous articles of base metal
47	**Pulp of wood or of other fibrous cellulose material**	78	Lead and articles thereof
19	Preparations of cereals, flour, starch or milk; bakers' wares	23	Residues and waste from the food industries
55	Man-made staple fibers	93	Arms and ammunition; parts and accessories ther
04	Dairy produce; birds eggs; natural honey;	81	Other base metals; cermets; articles thereof
90	Optical, photographic, cinematographic, measuring, checking, precision, med ...	04	Dairy produce; birds eggs; natural honey;
		19	Preparations of cereals, flour, starch or milk; bake
27	Mineral fuels, mineral oils and products of their distillation	63	Othermade up textile articles; sets; worn clothing
96	Miscellaneous manufactured articles		textile articl ...
14	**Vegetable plaiting materials; vegetable products nes**	55	Man-made staple fibers
23	Residues and waste from the food industries	65	Headgear and parts thereof
63	Other made up textile articles; sets; worn clothing and worn textile articl ...	96	Miscellaneous manufactured articles
		12	Oil seeds and oleaginous fruits
31	**Fertilizers**		

40	**Rubber and articles thereof**
42	Articles of leather; saddlery and harness
25	Salt; sulfur; earths and stone; plastering materials
58	**Special woven fabrics; tufted textile fabrics; lace, tapestries; trimmings; ...**
81	Other base metals; cermets; articles thereof
95	**Toys, games and sports requisites; parts and accessories thereof**
53	**Other vegetable textile fibers; paper yarn and woven fabric of paper yarn**
78	Lead and articles thereof
36	Explosives; pyrotechnic products; matches

NOTE: Text in bold are commodities with revealed bilateral comparative advantage in one year only; either in pre-crisis or post crisis depending on which column it falls into
SOURCE: Tradesift calculation based on UN Comtrade data 2012

Standard Complementarity Measures

The RCA indices only provide a preliminary appraisal of the competitive landscape between the Philippines and EU. A further step in the analysis consists of measuring the extent of trade complementarity between the two potential partners. In general, the literature on free trade areas suggests that small developing economies should ideally pair with large economies that have complementary trade structures. For instance, Schiff (1999) states that if the members' economies are complementarily in trade rather than competitive, then they would be natural trading partners. The larger the prospective partner, the greater the potential of market access. The more complementary the partners' economic structures are, the lesser the trade frictions that may arise from the trade agreement. In contrast, if the bilateral partners produce very much the same products, then in the short-run, a free trade pact will force the relatively more inefficient set of firms in one country to close down leading to unemployment. Of course, in the long run, the restructuring will benefit the country and the consumers will be rewarded.

In this section, the degree of complementarity between the Philippines and the EU will be examined using the FK index, a standard measure of complementarity. Table 5 shows the FK index of selected countries with respect to EU. The FK index measures the competitiveness or complementarity between two countries (in this case, selected country vs. EU) exporting to a common destination. An index equal to 1 entails exact similarity of the export patterns between two countries, while an index equal to 0 means complementarity of their commodities. FK index of the Philippines relative to EU is only 0.182, indicating the complementarity (or contrast) between their export patterns to the world. A potential FTA partnership between the two is therefore agreeable based on the complementarity of their markets. This idea is furthermore supported by the pattern of the FK indexes of the other selected countries. These countries, which have FK indexes less than

0.5, have an already concluded and effective FTA partnership with EU. An FTA partnership between Philippines and EU is more welcome consequently, since the two have an FK index value at the low end.

Table 6. FK index of EU vs. selected countries

EU-27		FKI (common destination: World)
Countries with concluded and effective FTA with EU	Albania	0.126
	Algeria	0.062
	Andorra	0.237
	Bosnia and Herzegovina	0.247
	Chile	0.134
	Croatia	0.344
	Egypt	0.142
	Iceland	0.100
	Israel	0.247
	Jordan	0.215
	Mexico	0.418
	Montenegro	0.122
	Norway	0.218
	Serbia	0.346
	South Africa	0.265
	Switzerland	0.364
	Turkey	0.416
Philippines	Philippines	0.182

SOURCE: Tradesift calculation based on UN Comtrade data 2012

Aside from determining the complementarity between the markets of Philippines and EU, it is equally important to examine the FK index of Philippines against countries with concluded FTA with EU. This will reveal if the Philippine exports are similar or different to other countries' exports to EU. The implication is countries that have FTA agreement with the EU that have competitive (i.e. not complementary) structures with the Philippines, then there is a danger that the Philippine will be on the receiving end of trade deflection. Table 6 provides the FK indexes of the selected countries' exports to EU relative to the Philippines exports to EU. It is noticeable that all FK indexes are almost equal to 0, inferring that the Philippines export basket to EU is very dissimilar to the basket exported by countries such as Albania, Algeria, Andorra, etc. Thus, it appears that of the current FTA partners of the EU, most have complementary trade structure with the Philippines. The probability of trade deflection against the Philippines does not appear to be imminent.

Table 7. FK index of Philippines vs. selected countries[12] with concluded FTA with EU

Philippines vs		FKI (common destination: EU 27)
Countries effective concluded	Albania	0.028
	Algeria	0.000
	Andorra	0.000
	Bosnia and Herzegovina	0.043
	Chile	0.013
	Croatia	0.062
	Egypt	0.023
	Iceland	0.009
	Israel	0.047
	Jordan	0.040
	Mexico	0.052
	Montenegro	0.005
	Norway	0.045
	Serbia	0.078
	South Africa	0.039
	Switzerland	0.068
	Turkey	0.081

SOURCE: Tradesift calculation based on UN Comtrade data 2012

Remarks to Issue #1

A 2-digit commodity level of RCA analysis shows that the Philippines enjoys a standard revealed comparative advantage in 25 commodities. Nine of these are agricultural in nature, which mainly includes meat and aquatic commodities, tobacco products and fruits and vegetable products such as fruits, sap, oil and plaiting materials; while 16 are manufacturing such as wood, chemicals, apparel, ships, copper and electrical machinery products. The relatively higher degree of the SRCA of its agricultural commodities compared to the manufacturing suggests that the Philippines' revealed comparative advantage against the world primarily lies in agricultural goods. Meanwhile, EU's SRCA are in commodities complementary to the Philippine SRCA. Its SRCA are in 40 commodities, 8

[12] The selection of countries is based on the availability of trade data in 2011. Since there are no data for San Marino, Liechtenstein, Caribbean, Lebanon, Morocco, Occupied Palestinian territory, Tunisia, Former Yugoslav, their FK index with EU is not included in the table.

of which are agricultural and 32 are manufacturing. The higher number of manufacturing commodity lines with RCA as well as its greater magnitude of RCAs vis-à-vis agricultural implies that EU possesses more standard comparative advantage in manufacturing commodities, particularly on pharmaceutical products, essential oils, fur skins, cork, works of art and aircrafts.

To assess the direct relationship of the commodities of Philippines and EU (whether they are complementary or competitive), a BRCA list for each country is estimated. It is found out that the list of the Philippine bilateral comparative advantage with EU appears to be an extension of the country's SRCA. Aside from the 25 commodities, which have SRCA, three manufacturing commodities are added in the comparative advantage of the Philippines against EU. They are inorganic chemicals, pulp of wood and toys and sport requisites. Still, the Philippines has a higher BRCA in agricultural commodities in general. The BRCA of EU relative to Philippines on the other hand, is also quite similar to the EU SRCA also. However, not all of its commodities with SRCA are retained on the BRCA list. The comparative advantage on tobacco, soap, other vegetable textile and commodities not specified are lost when the EU's export commodities are contrasted against the Philippines. Furthermore, the bloc is able to have a bilateral comparative advantage on 7 agricultural commodities and 25 manufacturing commodities not in its SRCA list. In sum, EU has BRCA in 68 commodities. Furthermore the manufacturing sector proves to be more comparatively advantaged. Unfortunately, EU's list of commodities with BRCA is sensitive to international shocks particularly to EU crisis. As compared to the Philippines, EU lost comparative advantage in more commodities (especially manufacturing) after the crisis. Hence, in light of the prospects of a double

In conclusion, the commodities, which are identified to have a Philippine bilateral comparative advantage, could be the areas where the offensive interests of the Philippines lie. The same analogy applies to the BRCA list of EU. The offensive interests of EU are more likely on manufacturing industries. The findings generated from the RCA analyses, will aid trade negotiators to pinpoint the industries which are needed to be highlighted in a potential FTA partnership. Nonetheless, RCA measures have limitations. Since they are, in reality, measures of specialization, they do not reflect trade barriers such as subsidies and NTMs. Furthermore, they can also be sensitive to the level of aggregation of data and be subject of policies. Although this may be the case, the use of RCA indexes is unquestionably a good starting point for an analysis.

The complementarity between the markets of the Philippines and EU on the other hand, is explicitly indicated by their FK index. FTA partnership between the two countries is therefore advisable, as the trade potential frictions could be relatively low. The possibility of trade diversion may also be unlikely since most of the bilaterally exported commodities are the specialization of each country relative to the world. Furthermore, the concluded FTAs made by EU do not pose a great threat to the potential PH-EU FTA, in so far as similarity of export commodities is concerned. Philippines exports to EU are highly different to the exports of countries with concluded FTA partnership with EU.

3. Issue #2: Offensive and Defensive Interests of the Philippines

To determine the non-food, non-agricultural commodities, on a line-by-line basis, that could constitute the offensive and defensive interests of the Philippines in the non-food and non-agricultural sectors. The process of identifying the commodities will be based on economic criteria.

Negotiators have multiple goals.

One of the main motivations why countries negotiate an FTA is the greater market access that the exporters could enjoy. A further attraction of FTAs is that the expanded market access created is assured or made permanent. This feature is principally important because of the incidence of economic crises which usually stokes up protectionist sentiments. More concretely, in the context of the current crisis of the euro area, having an FTA with the EU would preserve the market access of the Philippines despite protectionist pressures. Hence, even commodities that already enjoy duty free treatment in the EU market should still be considered in the design of negotiating stances, primarily for the purpose of assuring of market access especially if the bound WTO tariffs are non-zero.

Designing a negotiating stance can be complex due to the political economy of objective setting. Internally, negotiators have to reconcile many interests which are often conflicting. Externally, negotiators should assess what products it should request incremental market access for and at the same time, offer what product it is willing to grant market access to its FTA partners. Of course, because the negotiating process is dynamic, trading off requests with offers are carried out, for which consultations with stakeholders are conducted.

This section aims to facilitate the design of the negotiating stance of the Philippines in the non-food, non-agricultural sector. More specifically, it lays out a framework from which an initial offensive and defensive list could be generated. The framework organizes a set of indicators in a database that proxy for the economic criteria used in evaluating offensive and defensive interests. Again, the lists that are generated using this framework would not be the definitive list for the negotiations, but would just be the indicative ones. Coming with an initial offensive and defensive list based on purely economic criteria is an important step as it lays the groundwork or basis for the political and other non-economic considerations that follow.

Interestingly, comparing the structure of applied ad valorem tariffs (both agricultural and non-agricultural/food) and the traded value of the Philippines and EU indicate that EU has relatively lower tariffs (See figures 4 and 5). The bulk of Philippine exports to EU are in the lower tariff brackets. For instance, 90% of the total Philippine exports to EU are already within the 0-3 tariff rates. This is in contrast to the 72% of EU exports to the Philippines falling within the same range. A closer examination of the tariff rates of the two countries would highlight the difference of their tariff structures even more. The share of the Philippines exports, which enjoys 0 tariff rate from EU, is quite substantial as compared to EU's exports subject to the same rate from the Philippines (43% and 8% respectively). Also, 16% of EU's exports are still exposed to at least 6-10

Philippine tariff rates. Lastly, note that there are some lines which have specific tariffs still left out in the chart. Thus, the proportionate cuts in tariffs for market access in trade in goods are more likely to be borne by the Philippines.

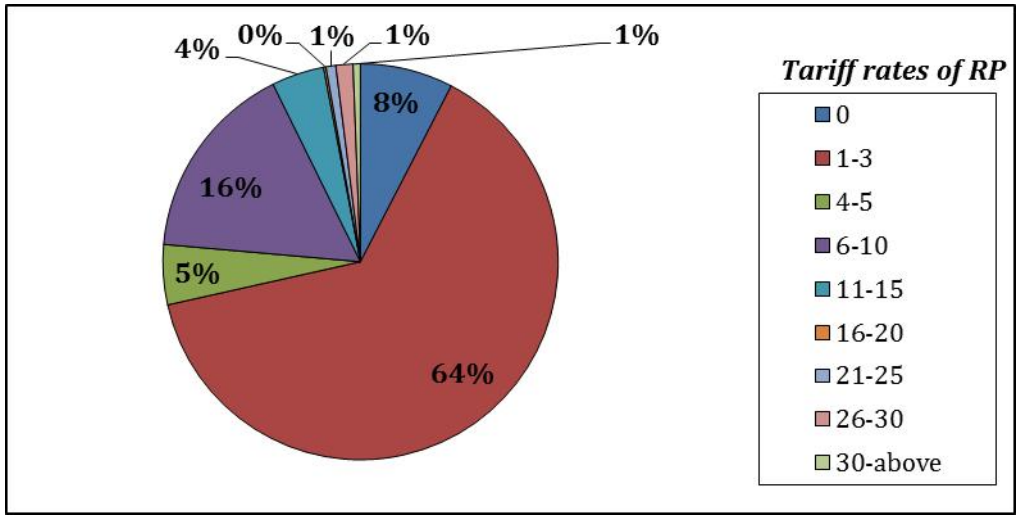

Figure 4. Percentage share of EU 27 exports to the Philippines subjected to PH tariff rates in 2009[13]

Source: WTO-IDB, Tariff download facility and Eurostat database

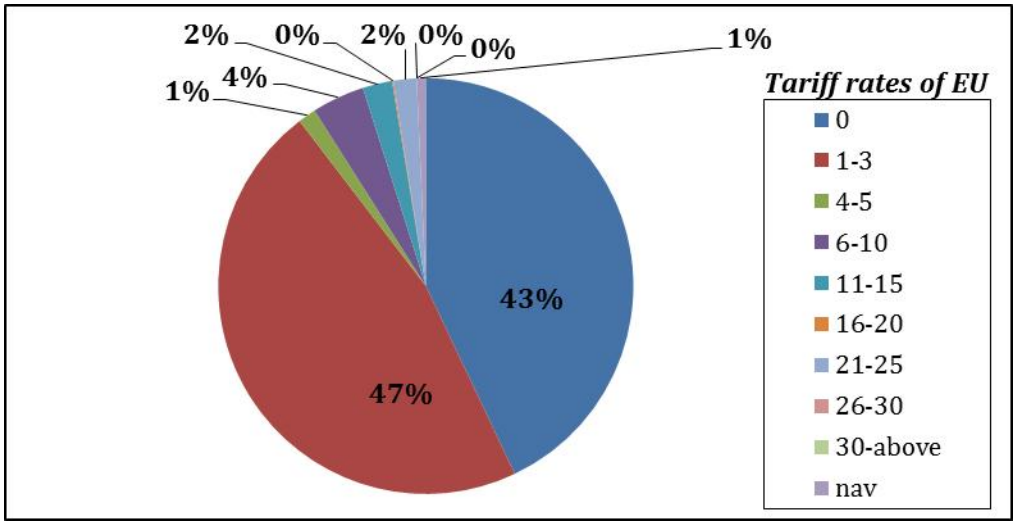

Figure 5. Percentage share of Philippine exports to EU subjected to EU tariff rates in 2009

Source: WTO-IDB, Tariff download facility and Eurostat database.

[13] See Appendix 2 for the corresponding table of figures 4 and 5

Framework

The negotiating stance of the Philippines in an FTA is, naturally, FTA partner specific. More specifically, the offensive list of the Philippines with the EU should be different with its corresponding list with China. The difference reflects the disparity in economic structures and comparative advantage among the partner economies. Thus, the selection of the commodities where the Philippine has offensive/ defensive interests will be based on the economic characteristics of the individual products with respect to EU.

The level of offensive/defensive interest is a concept that is analogical rather than categorical. There are, therefore, different degrees of offensive/defensive interest. In this framework the relative level of offensive/defensive interest will depend on the particular selection criteria that are set. Thus, there are different lists corresponding to the selection criteria that are specified to identify the elements of such lists. In principle, the more restrictive the criteria set, the greater is the degree of offensive/defensive interest. Under this system, there are no 'absolute' rankings of products under, say levels of sensitivities, only lists of different sensitivities.

Offensive Interest Criteria

The following economic criteria are proposed in generating the offensive list. These indicators are evaluated at the 10 digit level.

- *Degree of availability.* This criterion states the status of local production of the commodity in the Philippines. This is a discrete variable and implies the existence of local production of the commodity in the Philippines. This is a fundamental variable because the ability to exploit incremental access in an FTA in a commodity category depends radically if there is local production, in the first place. There are strictly speaking two states in this variable – "locally produced (LP)" or "not locally produced (NLP)" In an effort to allow different grades of product availability, this indicator also allows for an intermediate state labeled as "not in sufficient quantity (NSQ)". A state called LP-NSQ would mean that the good in question is locally produced, but the volume is insufficient to cover the needs of the local economy.
- *Export capacity.* The record of having exported the product gives evidence that the Philippines has the capacity to compete internationally. Thus, the possibility is high that the Philippines is in a position to exploit the incremental market access that could be negotiated in a specific product.
- *Export capacity to EU market.* This indicator shows that the Philippines has a record of having exported the product to the EU market. This demonstrates that the Philippine product is acceptable and competitive in the EU market. This variable is clearly a subset of the preceding indicator, but provides a stronger evidence that the Philippines could take ready advantage of the enhanced market access for the commodity of interest.

- *MFN Tariff Rate of EU.* This represents the non-preferential tariff set by the EU on imports from the rest of the world. Because the Philippines is not party to any EU FTA, its exports are subject to MFN tariffs by the EU.
- *Tariffs under GSP Preference of EU.* The Generalized system of Preference is a scheme where exporters from developing countries are charged lower tariffs than the MFN provisions, on what they sell to the EU. Because these are preferential arrangements, there are a number of conditions that apply before developing countries could invoke the GSP preferences. For example, to be eligible for GSP rates, exports should comply with rules of origin provisions, which in some cases, could be quite restrictive. Thus, it is not unusual for rates of utilization of GSP preferences by some countries to be quite low. The GSP for EU, however, is time bound and depends on the relative level of economic development of the trading countries with the EU.
- *Magnitude.* This variable sets a threshold value for exports of a commodity. The reason for setting a threshold magnitude is to eliminate commodities that only have insignificant volumes in the offensive list generated. Employing this criterion is underpinned by the 'materiality' principle.

Defensive Interest Criteria

The following economic criteria are proposed in generating the defensive list of the Philippines for EU exports. These indicators are evaluated at the 8 digit level.

- *Degree of availability.* This criterion states the status of local production of the commodity in the Philippines. As a discrete variable, this indicates the existence of local production of the commodity in the Philippines. This variable is important because the defensive motive is premised on the presence of local production of the good. Imports can only threaten import competing industries if these industries exist in the first place. Again, in an effort to allow different grades of product availability, this indicator also allows for an intermediate state labeled as "not in sufficient quantity (NSQ)".
- *Export capacity of EU to the Philippines.* The threat of import competition for a specific commodity is imminent only if the EU has a capacity for export. The export capacity can gleaned from the historical record of the EU in exporting a particular good to the Philippines, over the past four years.
- *Export capacity of EU to the Rest of the World.* A 'weaker' form of demonstrating the export capacity of the EU is its record of exporting a commodity to the rest of the world, not necessarily to the Philippines. The information that is ascertained by the indicator is that the commodity of interest is an exportable of the EU

- *Degree of Processing.* By degree of processing is meant the categories of Raw Material – Intermediate Products – Finished Products. The degree of defensive interest is assumed to be higher if the product that the EU exports is a final good, especially if it competes with import competing industries. However, if the product is an intermediate good or a raw material that will eventually be used as inputs to further processing locally, the degree of defensive interest is deemed to be lower. The reason being that to be competitive in the final goods, Philippine industries should have access to equally competitively priced inputs.
- *MFN Tariff Rate of the Philippines.* Because the EU is not a partner of the Philippines in a preferential trading agreement or FTA, the appropriate tariff rate to consider is the MFN. Of course, the higher the current MFN, the greater is the defensive interest. Tariff peaks, for instance, signals an acute defensive stance for particular products.
- *Magnitude.* This variable sets a threshold value for exports from EU of a commodity. The reason for setting a threshold magnitude is to eliminate commodities that only have insignificant volumes in the defensive list generated.

Generation of Offensive/Defensive Lists

Different versions of the offensive and defensive lists could be generated from a database through a process of screening. Essentially, the screening is carried out by first specifying different combinations of the economic criteria. Afterwards, the group of commodities that simultaneously satisfy the set of criteria are then extracted. These extracted commodities constitute the defensive/offensive list according to the specified economic criteria. For example, one combination of criteria for an offensive interest would constitute commodities that are locally produced in the Philippines, which face an MFN tariff rate of at least 7% in the EU, and which the Philippines has recorded exports to the EU in the past four years. Another example for the defensive interest would be a set of criteria that calls for locally produced goods, with Philippine MFN tariffs of at least 10%, which are considered finished goods, and for which there is a record of EU exporting to the Philippines. Thus one can have as many lists as combinations of economic criteria.

The level of ambition of the offensive list or the degree of restrictiveness of the defensive list will depend on the specification of the economic criteria. For instance, in the offensive list, screening for products that face an MFN at the 5% level would be more ambitious than using an MFN tariff rate of 10%. On the other hand, a more restrictive defensive list would extract products whose imports are subject to an MFN tariff rate of 5% than those with corresponding tariffs of 10%. The economic implications of choosing the combination of economic criteria will of course differ on the particular commodities that are extracted. The coverage of the offensive list is naturally expected to be wider if the level of ambition is higher.

Database

A critical element in the data mining process to generate the offensive/defensive list is the creation of a database. Because the database is the reference from which exports and imports are linked with the particular tariff lines, it is important that the correspondence between the tariff lines of the EU and the Philippines are properly aligned through the careful use of correlation tables. In order to have consistent HS nomenclature, HS 2007 was used for both Philippine and EU trade and tariff data. The table below reports the variables and the source of the basic data. The database has been constructed by the Philippine Tariff Commission.

Table 8. Database Variables and Sources of Data

Variable	**Description**	**Source**
Philippine Exports to EU and the World (2007-10)	PSCC based	NSO
EU Import Data (2007-10)	CN8 digits/ HS 2007	WTO Integrated Data Base
EU MFN Duty Rates		WTO Integrated Data Base
EU Export Data (2007-10)	CN 8 digits/ HS 2007	Eurostat
EU GSP Rates		WTO Integrated Data Base & Taric Consultatxn
PH MFN Duty Rates		Tariff Commission
Availability	Locally Produced/ Not Locally Produced, etc	Tariff Commission
Degree of Processing	Raw Material, Intermediate or Final Good	WTO & TC

Offensive List Simulations

The following shows a number of simulations of the offensive list and their economic implications:

The specifications that were adopted in the simulation are:

- *Non-agricultural sector.* Because this paper deals only with the non-agricultural sector, the food and agricultural commodities were excluded.
- *Availability.* To have the potential to take advantage of market access, the commodities should be locally produced, even if production is not of sufficient quantity to supply the domestic economy
- *Exporting to the world*. The commodity should be an exportable, implying that the Philippines should have demonstrated the capacity to export this item.
- *Exporting to the EU*. The Philippines should have the capacity to penetrate the EU market, as evidenced by its record of having exported to the EU in the past.
- *EU MFN Threshold*. This is the threshold level of tariffs that are levied on Philippine exports to the EU. In this section, simulations pertaining to the three levels of MFN i.e. 5%, 7% and 10% are carried out.
- *Magnitude.* In this set of simulations, there is no minimum threshold for the value of Philippine exports set.

There are a total of 6,347 tariff lines of the EU in the database. Of the total, 5,357 or close to 85% of lines are in the non-agricultural and non-food sectors. Of course, because a number of tariff lines are already at zero duty, these are no longer of interest in terms of incremental market access (they could be bound at zero, though). Of the total number of tariff lines, 4,663 or 73% are dutiable. In the total tariff lines in non-food and agriculture sector, 4,091 or 76% are dutiable lines. Of the total exports of the Philippines to the world in 2010 of $5.77 billion dollars, $4.77 billion dollars or 82.5% are in non-food and non-agricultural sectors. Non-agricultural/food Philippine exports to the EU that were subject to tariffs sum up to $3.53 billion, indicating that almost a quarter of total non-agricultural exports in 2010 already entered duty free to the EU.

The simulation involves extracting the commodities that satisfy the conditions specified above. Panel A of Table 9 shows the combination of economic criteria employed to generate the list. There are three sets of criteria set up, where the condition that was allowed to vary is the threshold MFN tariff rate of the EU (at 5%, 7% and 10%). Each simulation generates a different offensive list, as shown in the differences of the number of lines and the corresponding amount of FOB exports per simulation in Figure 6. From the specifications, one can infer that the specification involving the criterion of MFN tariff rate of 5% and above is the more ambitious compared to the other two combinations. Under this specification, the offensive list includes all commodities that the Philippine exports to the EU which are subject to a tariff starting at 5% and above.

The lists of commodities under the aforementioned specifications are reported in Appendix 3. Of interest however, would be the comparative analysis of the findings under the three simulations. For the combination that involves extracting the Philippine exports to EU that face an MFN tariff rate of 5% and above, there are 664 lines that satisfy the conditions. This is only around 10% of total tariff lines, or if only non-agricultural sector is concerned, only around 12% of total non-agricultural tariff lines. Further refinement can be done by considering only the non-agricultural lines, which are dutiable in the EU. The extracted lines then constitute close to 16% of

the non-agricultural lines which are dutiable. By value, the export worth of the 664 lines in 2010 is $171 million, a mere 3% of total Philippine exports to EU. Compared to the total dutiable exports of the Philippines to EU in 2010, the extracted lines account for 14%.

If the criteria were to be less ambitious and only consider in the offensive list, only those commodities that have at least 7% MFN tariff (holding all other economic criteria) constant, then there would only be 468 tariff lines, which is 70% of the number of lines relative to the 5% MFN threshold . The extracted items would constitute only around 7% of total lines, or 11.4% of total dutiable lines in the non-agriculture subsector. These subset accounts for $141 million in 2010 exports of the Philippines to EU, or less than 3% of total Philippine exports to EU. Again, set against the total Philippine exports of dutiable non-agricultural exports, this only accounts for 4%.

The least ambitious among the specifications is the one that stipulates an MFN tariff threshold of 10% and above (including the other criteria which are held constant). Increasing the threshold value of the MFN tariff to 10% effectively halved the number of tariff lines in the offensive list compared with the list associated with the threshold MFN tariff of 5%. There are only 360 tariff lines in the list, which is about 54% of the list associated with the 5% MFN threshold. This subset comprises only about 6% of total lines, or around 8% of total dutiable lines in the non-agricultural sector. The 360 lines account for $117 million dollars of Philippine exports in 2010, which is around 0.3% of total Philippine exports to EU. Furthermore, this subset is around 3.3% of total dutiable non-agricultural/food exports of the Philippines to the world.

The drastic reduction in the tariff lines extracted when the threshold MFN tariff line is raised to 10% from 5% imply that there are only relatively few lines in the non-agricultural sector in the EU that have high tariffs (see Appendix 2). Actually, the relatively low volume of exports in the aforementioned subset could be due to the barriers that high tariffs pose to Philippine exporters.

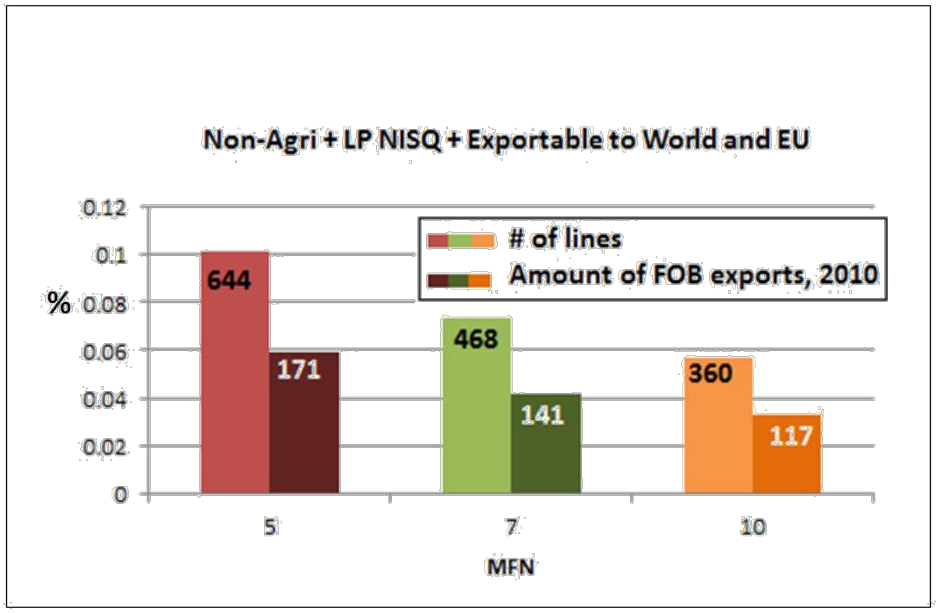

Figure 6. Offensive Interest Simulations

Table 9. Simulations of the Offensive List

Panel A: Criteria	**A.1.5**	**A.1.7**	**A.1.10**
Sector	Non Agri	Non Agri	Non Agri
Availability	LP NSQ	LP NSQ	LP NSQ
Exporting to the World	Yes	Yes	Yes
Exporting to EU	Yes	Yes	Yes
EU MFN Threshold (%)	5	7	10
Magnitude	none	none	none

Panel B: Subset	**A.1.5**	**A.1.7**	**A.1.10**
Number of lines (subset)	644	468	360
Amount FOB$ 2010 (subset) 'million	171.074	141.013	117.131
Avg amount FOB$ 07-10 (subset) 'million	180.694	139.047	117.931
Original Set of data			
Total Lines	6347		
Total Lines non-agri	5367		
Total Lines dutiable	4663		
Total Lines dutiable non-agri	4091		
PH exp to EU 2010, total $	5777.77		
PH exp to EU 2010, non-agri $	4768.122		

PH exp to EU 2010, dutiable $	4373.672
PH exp to EU 2010, dutiable non-agri $	3527.316
Avg exports to EU 2007-10 total $	9607.526
Avg exports to EU 2007-10 non-agri $	8841.033
Avg exports to EU 2007-10 dutiable $	8471.563
Avg exports to EU 2007-10 dutiable non-agri $	7859.828

Panel C: Indicators	**A.1.5**	**A.1.7**	**A.1.10**
Number of lines (subset) Total Lines	0.1015	0.0737	0.0567
Number of lines (subset) Total Lines non-agri	0.1200	0.0872	0.0671
Number of lines (subset) Total lines dutiable	0.1381	0.1004	0.0772
Number of lines (subset) Total lines dutiable non-agri	0.1574	0.1144	0.0880
Amount FOB$ 2010 (subset) PH exp to EU, total $	0.0296	0.0244	0.0203
Amount FOB$ 2010 (subset) PH exp to EU non-agri $	0.0359	0.0296	0.0246
Amount FOB$ 2010 (subset) PH exp to EU dutiable $	0.0391	0.0322	0.0268
Amount FOB$ 2010 (subset) PH exp to EU dutiable non-agri $	0.0485	0.0400	0.0332
Avg amount FOB$ 07-10 (subset) Avg exports 2007-10 total $	0.0188	0.0145	0.0123
Avg amount FOB$ 07-10 (subset) Avg exports 2007-10 non-agri $	0.0204	0.0157	0.0133

Avg amount FOB$ 07-10 (subset) Avg exports 2007-10 dutiable $	0.0213	0.0164	0.0139
Avg amount FOB$ 07-10 (subset) Avg exports 2007-10 dutiable non-agri $	0.0230	0.0177	0.0150

Defensive List Simulations

The following shows a number of simulations of the defensive list and their economic implications:

The specifications that were adopted in the simulations have the following elements:

- *Non-agricultural sector.* Because this paper deals only with the non-agricultural sector, the food and agricultural commodities were excluded.
- *Availability.* The defensive motive presumes the existence of industries. If there is no local production of a commodity, there is little reason to accord protection. Thus, a condition for inclusion in the defensive list is that a commodity should be locally produced, even if production is not of sufficient quantity to supply the domestic economy.
- *Importing from the world.* The commodity should be an importable, implying that the Philippines has a record of importing this commodity from the world. The indicator that used for this criterion is the record of any importation of the Philippines over 2007-10.
- *Importing from the EU.* To assess the capability of EU to take advantage of any potential market access provided by the Philippines in an FTA, the EU's record of exporting the commodity over the period 2007-10 is used as an indicator.
- *PH MFN Threshold.* This is the threshold level of tariffs that are levied by the Philippines on imports from the EU. In this section, simulations pertaining to the three levels of MFN i.e. 5%, 7% and 10% are carried out.
- *Degree of Processing.* For the following simulation, the criterion adopted is that the imports from EU should be commodities that are considered final goods.
- *Trade Remedy Past.* A grant for trade remedies, in the form of anti-dumping or safeguard measure, is taken as an indication of the sensitivity of a commodity from import competition. For the simulation, this criterion was not invoked because it is very restrictive.
- *Magnitude.* In this set of simulations, there is no minimum threshold for value of imports from the EU that is set.

The source of the data for the Philippine imports is from the National Statistics Office, and the nomenclature follows the Philippine Standard Commodity Classification (PSCC). There are a total of 10,080 tariff lines at the 8 digit level, of which 7,722 belong to the non-agricultural/food sector. Of the total number of lines, 9,732 are dutiable (96% of tariff lines). In addition, of the 7,772 non-agricultural lines, 7,379 are dutiable. The EU, does have more duty free commodities than the Philippines.

The simulation involves extracting the commodities that satisfy the conditions for the defensive stance. Panel A of Table 10 shows the combination of economic criteria employed to generate the defensive list. There are three sets of criteria that are proposed, where the condition that was allowed to vary is the threshold MFN tariff rate of the Philippines (at 5%, 7% and 10%). Each simulation generates a particular defensive list. From the specifications, one can infer that the specification involving the criterion of MFN tariff rate of 5% and above is the more restrictive compared to the two other combinations. Under this specification, the defensive list includes all commodities that the Philippine imports from the EU which are subject to an MFN tariff starting at 5% and above. This is apparent in Figure 7, where the number of lines and FOB value of the Philippine imports are greater when the MFN is at least 5%. The list of commodities extracted under the three specifications is reported in Appendix 4.

For the first set of simulation, i.e. that uses a threshold of 5% MFN tariffs, there are only 1,264 lines, making up 12.5% of total lines that satisfy the economic criteria. As a proportion of total dutiable lines in the non-agriculture/food sector, this accounts for 17%. However, the amount is only $111 million, which is just less than 5% of total imports from the EU, or 6% of total dutiable non-agricultural/food imports from the EU in 2010. Of course, since there are more criteria that has been specified in this simulation, particularly the final good requirement, the subset of lines for extraction, naturally, is smaller.

Increasing the threshold MFN tariff rate to 7% (holding other conditions constant), results in a shorter defensive list, of course. Under this specification, there are only 1,066 lines, a reduction of close to 200 items from the previous threshold of 5% MFN tariff. This subset constitutes only 10.5% of total tariff lines or 14% of total dutiable lines in the non-agriculture/food sector. Philippine imports from the EU in 2010 for 1,066 lines identified sums up to $ 71.83 million, a 35% reduction from the corresponding figure of the previous simulation. This sum represents only 2.6% of total imports or 4.5% of dutiable non-agricultural/food imports from the EU in 2010.

Increasing further the threshold MFN tariff rate to 10%, results in a defensive list that is only comprised of only 750 items. Thus doubling the threshold tariff to 10%, leads to a reduction of lines extracted by a steep 40%. The subset of lines is just 7.4% of total lines or 10% of the dutiable non-agricultural/food. The import value of the extracted items is only 1.4% of total imports from the EU in 2010. As a proportion of total value of imports of dutiable non-agriculture/food from the EU in 2010, the subset comprises only 2.2%.

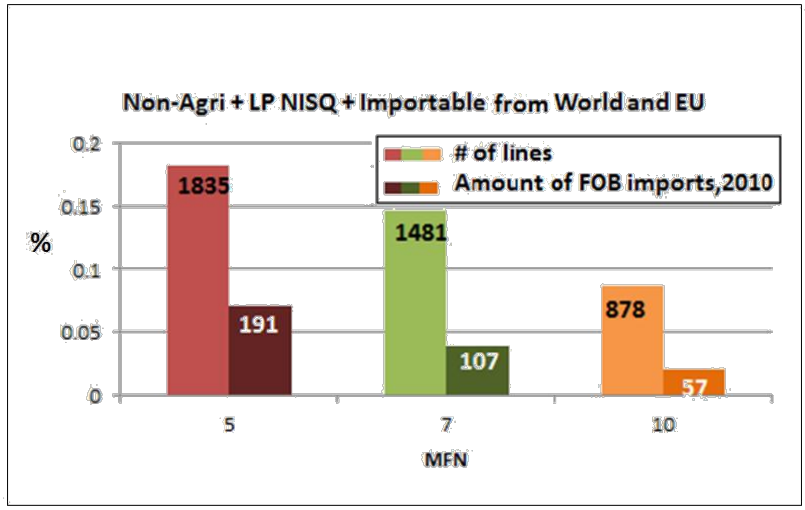

Figure 7. Defensive Interest Simulations

Table 10. Simulations of the Defensive List

Panel A: Criteria	**D.1.5**	**D.1.7**	**D.1.10**
Sector	Non Agri	Non Agri	Non Agri
Availability	LP NSQ	LP NSQ	LP NSQ
Importing from World	Yes	Yes	Yes
Importing from EU	Yes	Yes	Yes
Tariff of PH MFN	5	7	10
Degree of Processing	F	F	F
Trade Remedy Past	any	any	any
Magnitude	none	none	none

Panel B: Subset	**D.1.5**	**D.1.7**	**D.1.10**
Number of lines (subset)	1264	1066	750
Amount FOB$ 2010 (subset) 'million	111.06	71.838	40.407
Avg amount FOB$ 07-10 (subset) 'million	105.805	71.1975	39.8225
Original Set of data			
Total Lines	10080		
Total Lines non-agri	7722		
Total Lines dutiable	9735		
Total Lines dutiable non-agri	7379		
PH imp from EU 2010, total $	2724.172		
PH imp from EU 2010, non-agri $	2378.977		
PH imp from EU 2010, dutiable $	2169.144		

PH imp from EU 2010, dutiable non-agri $	1823.948
Avg imp from EU 2007-10 total $	12493.1175
Avg imp from EU 2007-10 non-agri $	2228.5125
Avg imp from EU 2007-10 dutiable $	1830.575
Avg imp from EU 2007-10 dutiable non-agri $	1565.97

Panel C: Indicators	**D.1.5**	**D.1.7**	**D.1.10**
Number of lines (subset) Total Lines	0.1058	0.0744	0.0080
Number of lines (subset) Total Lines non-agri	0.1380	0.0971	0.0105
Number of lines (subset) Total lines dutiable	0.1095	0.0770	0.0083
Number of lines (subset) Total lines dutiable non-agri	0.1445	0.1016	0.0110
Amount FOB$ 2010 (subset) PH imp from EU, total $	0.0264	0.0148	0.0264
Amount FOB$ 2010 (subset) PH imp from EU non-agri $	0.0302	0.0170	0.0303
Amount FOB$ 2010 (subset) PH imp from EU dutiable $	0.0331	0.0186	0.0332
Amount FOB$ 2010 (subset) PH imp from EU dutiable non-agri $	0.0394	0.0222	0.0395
Avg amount FOB$ 07-10 (subset) Avg imports EU 2007-10 total $	0.0057	0.0032	0.0054
Avg amount FOB$ 07-10 (subset) Avg imports EU 2007-10 non-agri $	0.0319	0.0179	0.0304
Avg amount FOB$ 07-10 (subset) Avg imports 2007-10 dutiable $	0.0389	0.0218	0.0370

Avg amount FOB$ 07-10 (subset) Avg imports 07-10 dutiable non-agri $	0.0455	0.0254	0.0433

Other Simulations for the Defensive List

Aside from observing the impact of a change in MFN on the defensive list of the Philippines, it is also possible to do a simulation based on the availability of the commodities in the domestic and international market. Unlike the previous simulations, this section uses a constant MFN tariff rate of at least 10% and an import magnitude of at least US$500, 000. Furthermore, the (1) availability and (2) record of the Philippines importing from EU are treated as variables. Panel A of Table 11 presents the specific set of economic criteria that are used to create another set of defensive lists found in Appendix 5. One can expect that this simulation will shed light on the significance of the availability of the commodities on the country's defensive list.

The first simulation considers goods which are both locally produced and not in sufficient quantity and therefore are being imported from EU. There are 43 lines, equivalent to 4% of the total lines, which fit the criteria. They consist the 2% of the total dutiable lines in the non-agriculture/food sector, contributing about $33 million dollars to the imports of the Philippines from EU. Interestingly, the results of the first simulation coincide with the second. Although the second simulation is less restrictive, in the sense that it accepts all locally produced commodities (whether in sufficient or not in sufficient quantity) and all commodities (whether an import from EU or not), the resulting lines are the same in quantity and value as shown in Panel C of table 11. This implies that almost all of the commodities which are locally produced are in sufficient quantity or almost all of the Philippine imports from the World are also imported from EU.

Table 11. Other Simulations for the Defensive List

Panel A: Criteria	**D.4.10**	**D.10.10**
Sector	Non Agri	Non Agri
Availability	LP NSQ	LP
Importing from World	Yes	Yes
Importing from EU	Yes	Any
Tariff of PH MFN	10	10
Degree of Processing	any	any
Trade Remedy Past	any	any
Magnitude	500K	500K

Panel B: Subset	**D.4.10**	**D.10.10**
Number of lines (subset)	43	42
Amount FOB$ 2010 (subset) 'million	33.309	33.303
Avg amount FOB$ 07-10 (subset) 'million	32.535	32.2
Original Set of data		
Total Lines	10080	
Total Lines non-agri	7722	
Total Lines dutiable	9735	
Total Lines dutiable non-agri	7379	
PH imp from EU 2010, total $	2724.172	
PH imp from EU 2010, non-agri $	2378.977	
PH imp from EU 2010, dutiable $	2169.144	
PH imp from EU 2010, dutiable non-agri $	1823.948	
Avg imp from EU 2007-10 total $	12493.1175	
Avg imp from EU 2007-10 non-agri $	2228.5125	
Avg imp from EU 2007-10 dutiable $	1830.575	
Avg imp from EU 2007-10 dutiable non-agri $	1565.97	

Panel C: Indicators	**D.4.10**	**D.10.10**
Number of lines (subset) / Total Lines	0.0043	0.0042
Number of lines (subset) / Total Lines non-agri	0.0056	0.0054
Number of lines (subset) / Total lines dutiable	0.0044	0.0043
Number of lines (subset) / Total lines dutiable non-agri	0.0058	0.0057
Amount FOB$ 2010 (subset) / PH imp from EU, total $	0.0122	0.0122
Amount FOB$ 2010 (subset) / PH imp from EU non-agri $	0.0140	0.0140

Amount FOB$ 2010 (subset) PH imp from EU dutiable $	0.0154	0.0154
Amount FOB$ 2010 (subset) PH imp from EU dutiable non-agri $	0.0183	0.0183
Avg amount FOB$ 07-10 (subset) Avg imports EU 2007-10 total $	0.0026	0.0026
Avg amount FOB$ 07-10 (subset) Avg imports EU 2007-10 non-agri $	0.0146	0.0144
Avg amount FOB$ 07-10 (subset) Avg imports 2007-10 dutiable $	0.0178	0.0176
Avg amount FOB$ 07-10 (subset) Avg imports 07-10 dutiable non-agri $	0.0208	0.0206

Remarks to Issue # 2

This section proposes a framework for designing an offensive/ defensive stance as an input to the PH-EU FTA negotiations in non-agriculture sector portion of trade in goods. Generating the offensive /defensive list is basically a data mining process. Given a database that contains trade data and other properties at the national tariff level, negotiators can specify a combination of economic criteria, which, in turn, could be used to screen the database. The list of commodities that satisfy the combination of economic criteria would constitute one version of a defensive or offensive. Of course, there could be as many lists as there are alternative specifications.

The degree of restrictiveness of the offensive or defensive list depends on the specification of the economic criteria. The different variables, e.g. MFN tariffs or degree of processing, give different levers for adjusting the degree of restrictiveness. Since the variables are mostly independent, it is possible to increase restrictiveness in one variable but decrease it in another for a particular specification. This method thus generates lists of commodities that reflect the degree of offensive and defensive interest, based on purely economic basis. Non-economic considerations could then be considered after different versions of the offensive/defensive lists are generated.

4. Conclusions

Using Revealed Comparative Advantage Index, a standard measures of comparative advantage, at the broad 2 digit level, it can be noted that the Philippines has comparative advantage in more sectors in the agricultural/food rather than in non-agricultural. The EU, on the other hand, has more sectors in manufacturing than in agriculture where standard measures say it has comparative advantage.

To assess the direct relationship of the commodities of Philippines and EU (whether they are complementary or competitive), a BRCA list for each country is estimated. It is found out that the list of the Philippine bilateral comparative advantage with EU appears in sectors identified with the standard measures of comparative advantage in addition to three more manufacturing sectors. Thus, the number of BRCA where the Philippines has an advantage over EU, are skewed towards the agriculture/food sectors. The list of sectors where BRCA of EU relative to Philippines is also quite similar to the EU standard measures of RCA also. However, the comparative advantage on tobacco, soap, other vegetable textile and commodities not specified are lost when the EU's export commodities are contrasted against the Philippines. In general, the bilateral RCA of EU with the Philippines lies mostly in its manufacturing sectors. Unfortunately, EU's list of commodities with BRCA is sensitive to international shocks particularly to EU crisis. As compared to the Philippines, EU lost comparative advantage in more commodities (especially manufacturing) after the crisis.

Although the standard measures of comparative advantage are useful in drawing general notions of the offensive targets, they are really measures of specialization and do not reflect the barriers to trade directly. These standard measures could also be influenced by policies e.g. export subsidies. Hence, there is need to complement the analysis with more operational approaches for the PH EU FTA negotiations.

The second part of this paper outlines a framework from which lists of commodities that reflect the offensive or defensive interests can be generated and subsequently subjected to non-economic vetting. This approach is more operational in the sense that actual lists, down to the tariff line level, is employed. At the same time, the approach could be used to simulate different lists depending on the value judgment of the negotiators in preparation for the actual negotiation. These value judgments are reflected not only in the economic criteria they actually choose but also in the magnitudes of the threshold levels they among the economic criteria included in the framework.

What is then the optimum defensive and offensive list? This is a policy issue, and would depend on the value judgment of the policy makers, in terms of weights given to economic and non-economic factors, as well as on the degree of restrictiveness they impose on the specifications. What the proposed framework offers is an objective approach in generating offensive and defensive lists at the tariff level that can be subject to other non-economic considerations.

References

Asian Development Bank. Office of Regional Cooperation. *How to Design, Negotiate and Implement a Free Trade Agreement in Asia.* Asian Development Bank. Philippines, 2008.

Consortium of Euro-Asia Centre, University of Limerick and IFRI. *A Qualitative Analysis of a Potential Free Trade Agreement between the EU and ASEAN*, p.12. SI2.421512, 2006.

Fertı, Imre and Lionel J. Hubbard "Revealed Comparative Advantage and Competitiveness in Hungarian Agri-Food Sectors", Institute of Economics, Hungary Academy of Sciences, Discussion paper series 2002/8, 2002

France Bender, Siegfried and Kui-Wai Li "The Changing Trade and Revealed Comparative Advantages of Asian and Latin American Manufacture Exports", Yale University, Economic Growth Center Discussion Paper Series No. 843, 2002

Leu, Dr. Gwo - Jiun Mike " Changing Comparative Advantage in East Asian Economies", School of Accountancy and Business Research Centre, Nanyang Technological University, Working Paper No. 3-98, 1998

National Statistical Coordination Board.

Pasadilla and Liao. "Market Access Limitations of the Philippines in the EU Market" PIDS, 2007. Discussion Paper Series No. 2007-15

Ramphul, Olan. 2012 , "Asean-India Free Trade Agreement in goods: an assessment," African journal of social Sciences, Volume 2 Number 3, ISSN 2045-8460

Tradesift. *Conceptual Manual for Tradesift VI.1.* 2012. http://www.tradesift.com/tradesift-help.aspx (July 23, 2012)

United Nations. Department of Economic and Social Affairs. *International Standard Insdustrial Classification of all Economic Activities.* Rev 4. New York, 2008

United Nations ComTrade. *Export data*. comtrade.un.org (July 23, 2012)

Yeats, Alexander J "Does Mercosur's Trade Performance Raise Concerns About the Effects of Regional Trade Arrangements", International Economics Department, The World Bank, 1997

Yue, Changjun "Comparative Advantage, Exchange Rate and Exports in China", paper prepared for the international conference on Chinese economy, CERDI, 2001