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MORE TRADE, MORE PROTECTION: INSIGHTS AND IMPLICATIONS OF THE UNENDING CONTRADICTION

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MORE TRADE, MORE PROTECTION: INSIGHTS AND IMPLICATIONS OF THE UNENDING CONTRADICTION[1]

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Abstract

Despite the stance of the WTO and various RTAs, elements of trade protectionism remain prevalent. This could be understood by the divergence between countries' national interests and international trade protocols, which was reverberated during the recent global financial crises. However, the contradiction has taken new turn following new protectionist instruments. Furthermore, the implication of these instruments on developing countries economy is prevalent. Thus, this study explores the likelihood to engage in trade protection and the implication on developing country, focussing on Africa. The study observes that in the first quarter of 2012 alone, the number of protective measures amounts to 67, with bail out and trade defence accounting for as much as 74%. Similarly, from 2009 to 2011, trade defence mechanisms and bailout accounted for 25% of the protective measures; while tariff and non-tariff are also frequently used, jointly constituting about 28.11%. The study reveals that a country's level of economic development is not a fundamental determining factor with regards to its tendency to engage in trade protectionism. However, the study establishes among others that as a country's institutional quality improves, the less the tendency of being involved in protectionism. Paradoxically, the more a country's trade integration, the higher its tendency towards protectionism, which might be alluded to the fact that when a country trades more, it has more interest to protect as major complainants of trade cases are also major traders. The study reveals that a country's per capita income growth was significantly and adversely affected by the contemporary protectionism. It impacts negatively on trade balance; however, such impact was essentially significant for African countries.

Keywords: Africa; Global trade; Institutions, Protectionism; World market, WTO
JEL Codes: F13, O43; P48

1. Introduction

The drive towards cooperation by countries to enhance mutual benefit and support for growth and development in the form of trade, among others, has been one of the major preoccupations of the World Trade Organization (WTO). The growth in the world trading system (WTS), which was indoctrinated by the consensus towards free trade of goods and services and mutual cooperation to enhance countries' trading capacity, can also be attributed to the core reason for the drive towards regional economic cooperation by countries (United Nations Economic Commission for Africa-UNECA, 2006). However, for several decades, the debate over free trade and protectionism has continued to be a discursive phenomenon. The proponents of free trade advocate a minimization of the restrictions to international trade in favour of openness and 'seamless' access to the global market. For instance, the number of Regional Trade Agreements (RTAs) across the world has more than tripled between 1990 and 2011, which can be attributable to the establishment of WTO (WTO, 2011a). These agreements were expected to enhance trade by developing the capacities of member countries to engage in trade.

Protectionists, on the other hand, advocate national interest and economic welfare through regulating imports and market entry of other countries, especially when there is the need to protect a given national issue such as unemployment and poverty that has been witnessed with the recent global financial crises. Such agreements include issues relating to trade policies (e.g. tariff bounds, rules of origin in some cases, regional infrastructural development such as regional roads, and rails amongst others (Osabuohien and Efobi, 2011). For example, the number of protective actions implemented by countries within a period of three years from November 2008 to November 2011 was as much as 1,593 (Global Trade Alert-GTA, 2011). The recent case where the the EU complained about Argentina's import policies with respect to import restrictions and 'controversial expropriation of Spanish-owned oil company' is a ready example. A similar one is the China-USA dispute regarding 22 countervailing measures that are applied to Chinese imports, which is purportedly argued to affect about USD 7.3 billion of Chinese exports to USA, are ready examples (ICTSD, 2012a,b).

Stances towards free trade or protectionism have their pros and cons, but the choice and relativity to glide towards more of one and less of the other lies with the countries involved. The argument for or against free trade and protection is not really new as similar issues emerged after the economic depression of 1930s (Eichengreen and Irwin, 2009). However, the 2008 global economic crises has brought a new dimension to the

issue, as the global economic drivers before the crises have always advocated for nations to remove impediments to trade as could be witnessed with the formation of numerous Regional Economic Communities-RECs (Osabuohien and Efobi, 2011).

This study engages data from the Global Trade Alert (GTA) database on protectionism (which provides different approaches of protectionism), World Development Indicators-WDI (World Bank, 2012) and World Trade Indicators-WTI (World Bank, 2011) among others, to explore the relativity of countries agenda tilting towards free trade and protectionism. The influences of institutional framework, infrastructure, economic development and trade volume in determining countries' tendencies for protectionism are also examined. The study employs descriptive, statistical and econometric analysis in estimating the data. This is with a view to underscoring how countries' historical and development processes can influence policy mix especially with regards to the gliding towards free trade versus protectionism.

2. Objectives of the Study

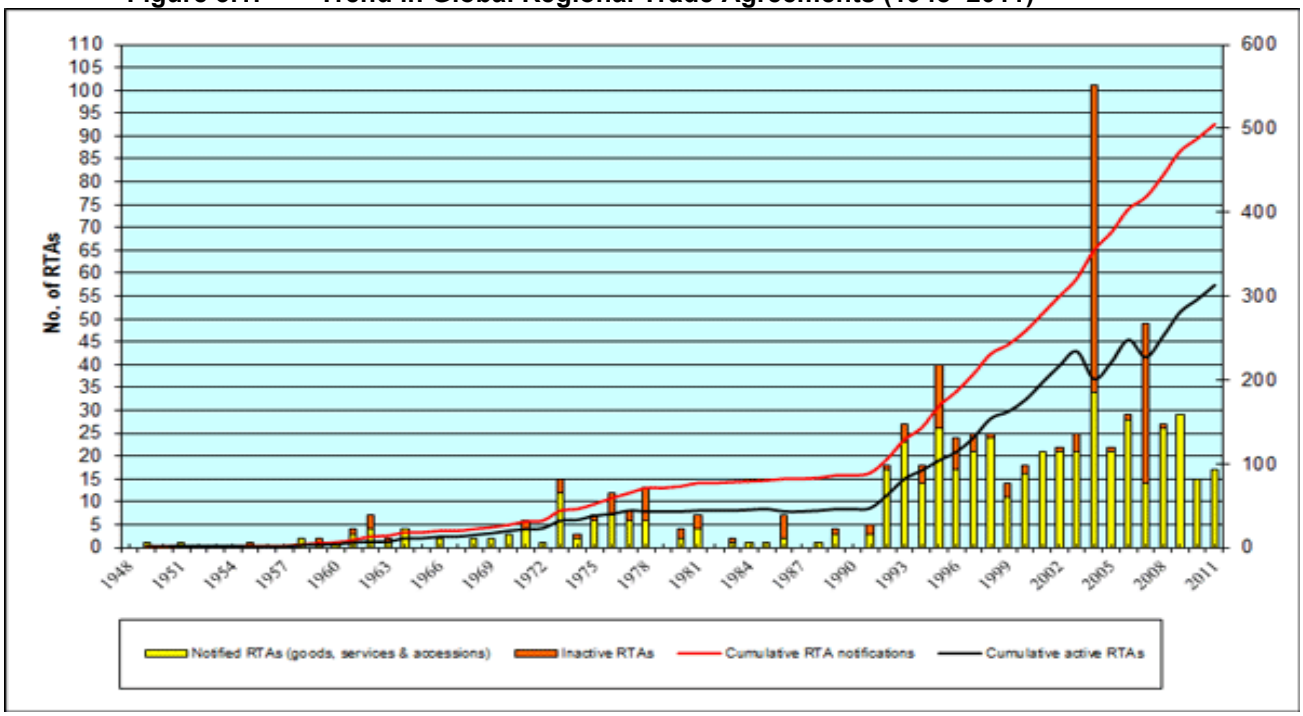
The main objective of the study is to empirically interrogate the argument for/against free trade and protectionism. The specific objectives include:

i. To document the free trade-protectionism inclination across the world.
ii. To investigate whether economic development of countries influence their tendencies for protectionism.
iii. To investigate how countries' level of trade integration affects their inclination for protectionism.
iv. To explore how infrastructural facilities can impact on countries' tendencies towards protectionism.
v. To find out how countries' institutional framework influence their relativity towards protectionism.
vi. To underscore the impact of protectionism on a country and by inclination, Africa

3. Stylized/Background Facts

The section presents and assesses the stance of free trade and protectionism. From the global perspective, the number of RTAs has witnessed substantial increase from 1948 to 2011 as evidenced in Figure 3.1. The upsurge accelerated in the 1990s especially with the establishment of WTO in 1995. These agreements were expected to enhance trade by improving the opportunities with regards to market access of member countries.

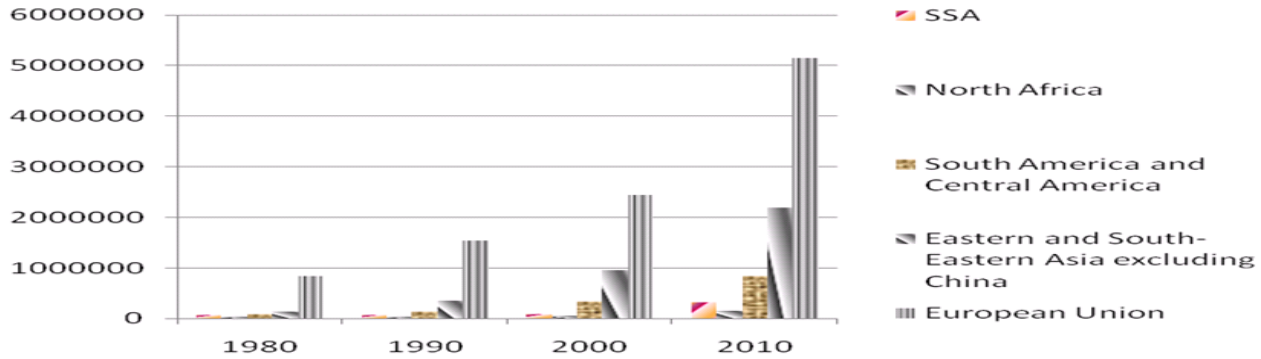
Figure 3.1: Trend in Global Regional Trade Agreements (1948–2011)



Source: WTO (2011) *Regional Trade Agreements: Facts and Figures*

The expectation of the increased RTAs is that member countries will increase their trade flows at least among members (intra-regional trade) by reducing or removing trade barriers. However, in some of the regions of the world especially the developing countries (e.g. SSA) the performance of trade has not substantially improved (UNCTAD, 2012). For instance, assessing the value and share of merchandise export, Figure 3.2 reveals that the merchandise export from SSA region was quite low compared to other regions.

Figure 3.2: Values and shares of merchandise exports (1980-2010) USD current price



Source: Authors' computation from World Bank (2012) *World Development Indicators*

The low performance of Africa in international trade can be traceable to a number of factors such as infrastructural development, economic development, geographical constraint, weak institutions, among others (Elbadawi, 1997; Ajakaiye and Oyejide 2005; Osabuohien and Efobi, 2011).

To this end, Table 3.1 documents per capita Gross Domestic Products (GDP). Evidence from Table3.1 shows that GDP per capita for the world has witnessed more than a 10-fold increase between 1970 and 2010. The denotation of the above is that there has somewhat been an improvement in the global economy over the period. This pattern can also be observed for most other regions presented except for SSA where it was about six-fold.

Table 3.1: GDP per Capita (Current USD) across the World

	GDP Per Capita (Current USD)				
Region	1970	1980	1990	2000	2010
World	784.61	2480.73	4157.69	5302.91	9227.95
EAP	310.84	1142.55	2551.47	3916.43	7351.46
ECA	1350.03	5665.92	10154.50	11113.65	22526.84
LAC	611.31	2127.27	2622.86	4105.90	8822.25
MENA	339.12	2499.63	2071.62	3000.77	6448.27
SSA	217.84	703.69	587.78	514.92	1301.71

Authors' compilation from World Development Indicators (2012)

It can also be noted that in 2010, the values for SSA was more than seven times lower than the world average. Similarly, when comparing the region with East Asia and Pacific (EAP), Europe and Central Asia (ECA), Latin America and Caribbean (LAC), the Middle East and North Africa (MENA) region, the value for Africa was slightly lower than EAP and MENA region, but was six times lower than ECA and close to three times lower than LAC. This low value for SSA can be understood further by examining the quality of port infrastructure and institutions as reported in Table 3.2.

The reason for this is to assess the quality of port infrastructure, which is a significant component of international trade with respect to export and import, and institutions across the globe, which can possibly influence trade. The quality of port infrastructure (QOPI) is measured as an index from 1 to 7 (1 indicating extremely underdeveloped and 7 denoting well developed and internationally efficient port). The quality of port infrastructure, which can facilitate trade, is rather poorly developed in Africa compared to other regions.

Table 3.2 Quality of port infrastructure and Institutions

	Quality of Port Infrastructure (QOPI)			Quality of Institutional Framework (QOIF)			
	2007	2009	2011	2005	2008	2010	2011
World	4.03	4.20	4.25	5.11	5.40	5.60	5.92
EAP	4.45	4.54	4.62	5.63	6.36	6.71	6.79
EAC	4.30	4.39	4.45	6.27	6.55	6.71	6.71
LAC	3.58	3.90	3.95	4.97	5.34	5.41	5.56
MENA	4.31	4.55	4.55	3.29	3.37	3.53	3.53
SSA	3.51	3.71	3.82	4.42	4.46	4.65	5.76

Notes: QOPI is an index that shows the level of port development with values ranging from 1-7, the greater the better; while QOIF is measures the strength of legal rights with values between 0 (worst scenario) and 10 (best scenario).
Source: Same as in Table 3.1

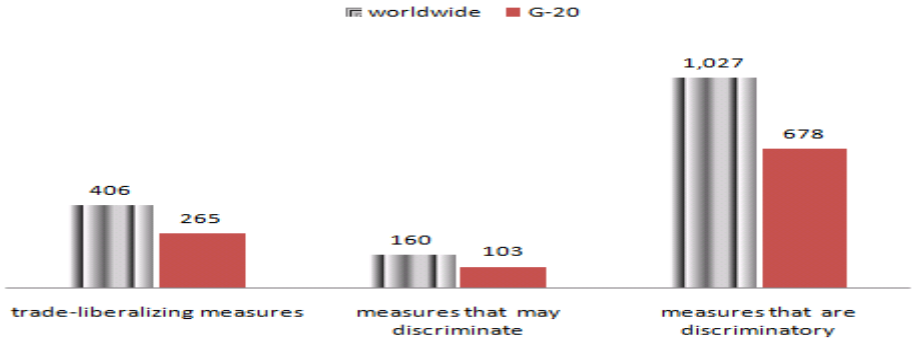
As can be seen in Table3.2, the QOPI for SSA was lowest. In 2007, SSA's value of 3.51 was slightly lower than that of LAC (with the value of 3.58). Though it increased to 3.71 and 3.82 in 2009 and 2011, respectively, it was still lower than those of other regions and world average.

Also reported in Table 3.2 is the quality of institutional framework (QOIF) for the period 2005-2011. This indicator is measured as the strength of legal rights with values between 0 (worst scenario) and 10 (best scenario indicating excellent QOIF). The values presented in Table 2.2revealed that for most of the periods, SSA performed lowest compared to other regions except for MENA. SSA's QOIF experienced slight improvement in 2011 as the value of institutions in SSA improved more than LAC with a difference of 0.20. SSA's institutional quality was still lower than that of EAP and ECA. From the foregoing discourse, Africa has rather low performance with regards to trade and other factors that can influence trade, notably: economic development, port infrastructure and institutional framework. This may be understood from the perspective that poor institutional framework can lead to bureaucratic delays, which increases cost of transaction and trading cost, and eventually inhibit trade flows (Ndomo, 2009; Djankov, Freund and Pham, 2010; Osabuohien and Efobi, 2011).

Furthermore, trade liberalising and protective measures across the globe are underscored in the study. From the GTA report (Evenett, 2011), the number of protective actions that can inhibit trade totalled about 1,593 that were implemented between the last quarter of 2008 and the last quarter of 2011, which represents annual average of about 531. Among the measures only 406can be said to trade liberalizing, representing

25.49%, while the rest187 representing 74.53% were measures that discriminate against trade as can be seen in Figure 3.3.

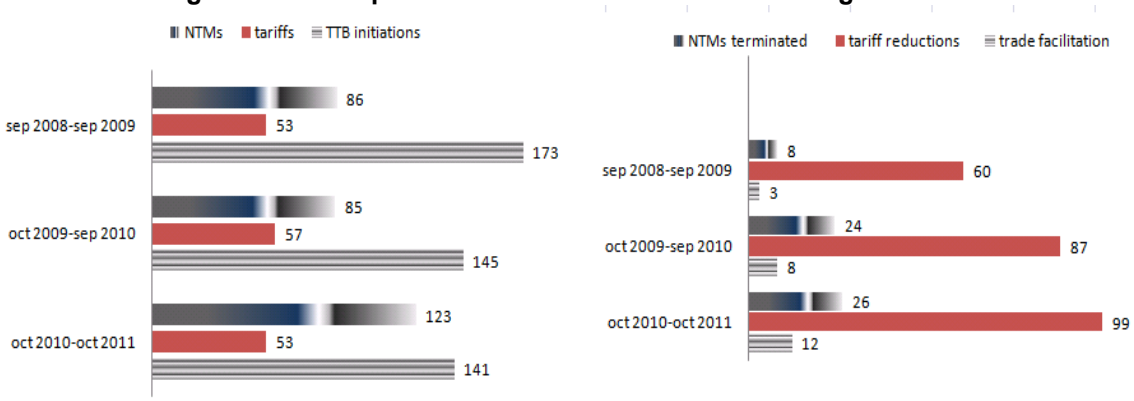
Figure 3.3: Protective and Liberalizing Measures



Source: Adapted from GTA Report (2011) and Datt et al. (2011)

In terms of the categories of trade restrictive measures, Figure 3.4 reports that temporary trade barriers, which entail ant-dumping, countervailing duties and safeguards account for about 50.11%, tariff and non-tariff instruments account for 17.79% and 32.10%, respectively. On the other hand, trade liberalizing measures include trade facilitation (accounting for 7.03%), tariff reductions (accounting over 75.23%) and non-tariff measures (representing 17.74%).

Figure 3.4: Components of Protective and Liberalizing Measures



Source: same as in Figure 3.3

The reflection from the above is that tariff measures constitute the bulk of trade liberalizing measures, while temporary trade barriers are the major protectionism measures. This can be supported by the 2011 GTA report that reveals that over 66% (about Two-third) of new 132 entries relate to state measures that are likely (or almost certain)to increase the discrimination against some form of foreign commercial interests,

which was more than the 47 neutral or liberalising measures (Evenett, 2011). In terms of sectoral usage, agriculture accounts for 13% while industries' products that were protected accounts for 87% (WTO, 2011).

4. Insights from Extant Studies

For several decades, the debate over free trade and protectionism has continued to be a discursive phenomenon. The proponents of free trade advocate a minimization of the restrictions to international trade in favour of openness and painless access to the global market. Protectionists on the other hand advocate national interest and economic welfare through regulating imports and market entry of other countries. Both theories have their pros and cons, but the choice between the two lies with the economy involved. It is essential to note that the plausibility of choosing either in absolute terms may prove a daunting and virtually impracticable task for any government, thereby giving rise to a mix of the two at varying levels.

Free trade by definition may be referred to as the absence of restrictions on the import and export of goods and services between countries, or a laissez-faire approach to international trade. It requires the integration of nations through a common market for the exchange of goods and services, and is an instrument which veers closely towards globalization (Maruping, 2005: Tilat, 2002).Trade is generally accepted as essential to a country's growth and to some extent economic development, both on the demand and supply sides. This assertion stems from the empirical and theoretical studies of a number of academic scholars. Some of these include Dollar (1992), Sachs and Warner (1995), Edwards (1997), and David and Scott (2005). Grossman and Helpman (1995) also revealed that world integration has an influence on entrepreneurs, and this results in a direct impact on the social structure of a country's economic system. These findings amongst others emphasize the important role that trade liberalization plays in economic growth and development (Winters, 2004; Winters and Mackay, 2004). Krugman (1983) and Bhagwati (2004) further suggested that global trade has positive effects on economic development, particularly in the area of employment generation, poverty reduction, income re-distribution and economic growth.

In the modern trade theory of Helpman and Krugman (1985) and the new growth theory of Grossman and Helpman (1991), it is postulated that the gains realized from trade makes free trade a significant tool for economic growth. Srinivasan (2000) and Stiglitz

(2002) further averred that in the case of developing countries, free trade brought about significant and substantial incentives. Maruping (2005) went on to explain that through trade, regional integration can enhance competition and provide access to wider markets; it can also be a useful tool in the trade of capital and labour across nations. More and more countries have therefore been embracing the idea of trade liberalization (through tariffs, duties and trade quotas reduction), and also jettisoning other apparent obstacles to free trade.

Some cross-country empirical studies postulate that global trade liberalization has significant positive effects on the economic growth of countries (Osabuohien and Egwakhe, 2011). Solow (1956) likewise noted that market centred trade liberalization accelerates forcefully economic growth and development. Others provide a basis for trade liberalization and the propensity with which it is able to encourage economic growth (Berg and Krueger, 2003; Winters and Mackay, 2004). Winters and Mackay (2004), also indicated that capital and technological goods importation lead to a knowledge spill-over that enhances global competitiveness. Winters (2004) further revealed that a reduction in barriers to trade improves total factor productivity via a rise in import competition. This was confirmed by various studies carried out in Brazil, China, Latin America and South Africa (Ferriera and Rossi, 2001; Kraay, 1997; Aw, Chung, and Roberts 1999; Jonsson and Subramanian, 2001). However, these studies gave rise to the subject matter of whether local agricultural products and primary extractions exports in Africa is the alternative to tariff reduction (Osabuohien and Egwakhe 2011).

Ornelas and Turner (2011), in their study revealed that one welfare implication of trade liberalization is that welfare rises as tariffs fall due to the regular mechanism of increasing imports. They suggested that although tariffs distort resource allocation as it drives a wedge between the cost of imports and the cost of domestic alternatives, the nature of the distortions may not be as astute as standard economic theory implies. They further assert that tariff distortions can improve overall economic welfare if they assist in economising transaction costs stemming from incomplete contracts.

Conflicting evidences have been put forward in the study of the relationship trade liberalization has on economic growth and development (Ackah and Morrissey, 2010). Osabuohien and Egwakhe (2011) ascertained that, although Africa is becoming increasingly more integrated in trade and has reduced her tariffs consistently and remarkably, the continent has experienced less economically developed submitting that

increase in trade integration does not translate to economic development in Africa. Similarly, Tilat (2002) notes that trade has no significant relationship with long-term economic growth. He proffered that in the short-run, the negative effects of free trade out-weigh its benefits. But Winters and Mackay (2004) from their study deduced that trade liberalization is harmful to the poor in the short-run, while in the long-run, open economies may still find themselves falling below the poverty line. Stiglitz (2002) who advocated free trade however advised against extreme or drastic trade openness.

The positive effects of international trade notwithstanding, most countries still engage in some sort of protectionism. As the governments seek to improve exports through supporting the domestic industries, it also seeks to safeguard other industries from the high level of competition and dumping issues that are associated with free trade. According to Milner and Yoffie (1989), a number of multinational companies advocate *strategic* trade policies. This means that they are willing to support free trade at home only if foreign markets are open or foreign markets reduce subsidies to their firms. The conundrum can be linked to the conflicting interests of countries, which will engender some level of controversy in the policies put in place to address such issues.

Protectionism can be described as an attempt by the government of a country to impose or enact restrictions on the exchange of goods and services between itself and other nations of the world [George, 1949]. The philosophy underlining protectionism postulates that the regulation of international trade is vital in ensuring that markets function properly, which emanates from the fact that market inefficiencies can impede the benefits of international trade; thus, the need to provide ways of mitigating such inefficiencies (Investopedia.com, 2012)2. The implication of these market inefficiencies and *loss of faith* in free trade culminate in the persistence of protectionism (Bhagwati, 2009). Some of the instruments used for protectionism include: tariffs, export subsidies, quotas, embargoes, exchange controls, import licensing, voluntary export restraint arrangements, and intellectual property laws such as patents and copyrights (Datt et al 2011; Evenett, 2011; GTA, 2012).

Available at www.investopedia.com/articles/03/112503.ap#axzz1uVPIdXIS [Accessed 10th May, 2012]

The justifications proposed for employing protectionist measures include infant industry argument, import dumping, externalities, market failures and import controls, and non-economic reasons. Infant industry argument is one the most widely adopted theories in support of protectionism (George, 1949). The belief here is that if foreign companies are allowed to 'freely thrive' in some industries, the competition will be too high for infant industries. These infant industries, which have the potential to develop and gain comparative advantage, would be limited in their ability to flourish beyond their foreign counterparts. Through protectionism, importation of de-merit goods such as alcohol, tobacco and narcotic drugs that have antagonistic effects can be controlled using high tariffs or imposing a ban (George, 1949). Also, in a bid to guard unemployment levels, countries may shun over-specialization in goods in which they have comparative advantage as a structural decline emanating from new international competition can lead to rises in unemployment levels in the domestic economy.

Protectionism not new *par se,* as it dates to the 17thcentury with the enactment of the Sugar Act of 1764 and the Stamp Act of 1765. The Sugar Act levied duties on imported sugar, molasses, wine and other commodities, while the Stamp Act levied taxes on all important almanacs, documents, periodicals, pamphlets and playing cards. The colonialists found these taxations groundless as they advocated a rule of "no taxation without due representation". These protectionist measures instigated an uprising that led to the American Revolution3. In 1929, USA passed the Smooth-Hawley Trade Act which increased tariffs on more than 3000 products by 60% and about 60 countries took retaliatory measures of tariffs and this doubled the world average level of protection, partly accounting for the 70% decline in world trade by 1933 (Irwin, 1998).

The effects of protectionism in recent times may not be as palpably lethal as that of the 17th century or 1929-1933, but it still has perturbing consequences. Protectionism is deemed harmful to consumers as both tariff and non-tariff barriers impose taxes on the domestic consumers, usually through regressive means, thereby hurting the poor more than the rich in the society. It creates market distortions which take place in the form of higher prices for goods and services, and reduction in market access for producers. It leads to loss of economic welfare of consumers through high prices and restricted

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Available at www.wowessays/dbase/ab5/lvt151.shtml [Accessed May 10th, 2012].

consumer choice. It also brings about regressive effects on the distribution of income by imposing tariffs on products majorly consumed by lower income households, thereby encouraging inequality in the allocation of resources (DTI, 2004).

Protectionism can introduce production inefficiencies as domestic firms that enjoy protection from competition may have a lackadaisical attitude towards reducing production costs. It also provides little protection for employment. This is because in the long-run, tariffs and other barriers to trade (which protectionists argue help to protect low-skilled workers of industries facing grim international competition), are found to be ineffective, inefficient and possessing high-level opportunity costs (DTI, 2004).Another argument against protectionism is that it can promote negative multiplier effects where trade disputes adversely affect trade volumes, leading to negative outcomes for countries. It may also trigger higher taxes and higher prices by imposing a double burden on tax payers and consumers. Protectionism can instigate trade wars in the form of retaliatory measures of other countries, which give rise to a decrease in the volume of world trade and an increase in the cost of importing new technology. However, Boffa and Olarreaga (2012) attempted to explore the extent to which the adoption of protectionist measures led to retaliation by other countries after the global financial crises of 2008. Using a linear probability model with fixed effects (which showed similar results to the ones obtained with the logit model) on data from the GTA database, they found no evidence of retaliatory measures from countries that had been recipients of protectionist measures.

National regulations and standards in international trade are expected to be typically motivated in line with national interest. It entails the removal of excessive technical barriers to trade within the RTAs, which requires harmonization or mutual acknowledgement of product standards and testing procedures between countries. This may be to ensure the quality of products, protect consumer health, food safety and the environment, or to reinforce social responsibility. While the developed countries have better symmetry of information and possess the necessary infrastructural and regulatory frameworks to support these requirements, many developing countries especially those in SSA do not have such luxury, thereby making testing, quality assurance, calibration, certification, accreditation and standardization difficult. Furthermore, domestic industries and importers are unable to fully comply with the technical requirements as they incur high transaction costs, especially for exporters (Meyer et al, 2009). This in turn reduces the capacity for most developing countries to participate effectively in the global market.

Internationally, it has been asserted that protectionism has more unfavourable effects to developing countries than favourable ones. The United Nations recently indicated that EU protectionism deprives developing countries of nearly USD700 billion export income a year (Landis, 2010). There is also an on-going dispute on the linking of Human Rights Violations to Trade Restrictions between USA and Russia as the US Congress disagrees over plans to normalize trade relations due to Russia's human rights record. Restoring permanent normal trade relations with Russia will require the US Congress to repeal the Jackson-Vanik amendment, which is a Cold-War era piece of legislation aimed at countries that restrict the freedom of emigration (ICTSD, 2012c).

According to Fatman (2012), Geographical Indication (GI) protection (which refers to a proper name or a sign that identifies a certain product which has a specific geographical location such as a province, a town, or a country), can result in missed economic opportunities. This can occur where there is new technology available that can lead to a more cost efficient production process, or where the preferences of consumers change over time. The resultant effect is that GI certified farmers may be unable to adapt the new production process that is required to meet the demands of consumers. In contrast to this, GIs are considered beneficial in protecting an established reputation against misuse by imitators, and serve as a useful tool to enter certain commodity markets. Fatman (2012) further postulated that GI protection in developing countries could play an important role in economic development by linking rural communities to commercial markets via the agricultural sector. This implies that an absolute move towards free trade is hardly feasible as there will continue to be contentions that necessitate a level of protectionism.

Recently, the WTO's highest court ruled that the US "dolphin-safe" label violates WTO's Agreement on Technical Barriers to Trade (TBT). According to the judges, the label discriminates against Mexican tuna by banning a fishing practice known as "purse-seine" nets. These are encircling nets that temporarily set on dolphins to attract the tuna that swim below, and are used almost exclusively by Mexican fisheries (ICTSD, 2012d). The implication of such a label is that it increases market share for the *dolphin-safe* US industries, while decreasing the market share of the *non-dolphin-safe* Mexican fish farmers.

Some commentators have mentioned the effect of the recent increase in protective measures. For instance, during the G-20 meeting of world Trade Ministers, the WTO Director-General cautioned against protectionism (ICTSD, 2012e). Similarly, the Mexican economy minister also referred to protectionist measures aimed at restricting imports as 'shooting oneself in the foot' noting that protectionism could act as a handicap for domestic companies by a displacement from global value chains. While the Chinese minister of commerce added that authorities need to maintain a high level of vigilance against protectionism (ICTSD, 2012e). The above is crucial as it has been noted that towards the end of 2011, about 1,243 new measures had been initiated since 2008 global financial crises where 900 these were trade restrictive, while another 327 were responsible for the decrease in the level of import protection (Datt et al, 2011).

5. Analytical Underpinnings

The main argument in this study is not for or against trade nor protection, but the reason why countries' national policies regarding trade seems to be at variance with some international trade protocols and guidelines. Some scholars (Dollar, 1992; Winters, 2004; Winters and Mackay, 2004etc) have argued for free trade (or better put, trade liberalization), which is usually characterized with the removal of possible trade constraints to boost the trade flow and economic performance (Osabuohien and Egwakhe, 2011). While another set of scholars (e.g. Winters and Mackay, 2004; Fatman, 2012 etc) have noted that developing countries need some degrees of protection to reach some growth threshold as domestic firms may not have the 'muscles' (technical, financial, economic) to compete favourably in the international market.

The reality of this is that even the developed countries and emerging market economies are also involved in one form of protection or the other (Datt et al 2011). This was brought to limelight at the recent global financial crises. For instance, it has been observed that geographical indications of agricultural products and foodstuffs are protected through Protected Designations of Origin (PDOs) and Protected Geographical Indications (PGIs) in Europe, which are based on EU's GI legislation that are operational within the EU and some non-EU developed countries (EU, 2004; Fatman, 2012). The adoption of a given standard, which is a form of protection, can have some benefits (positive trickle down) and costs (negative effect) on trade and other macroeconomic performance indicators. For instance, the impact of ISO 9000 (a set of international standards, which provides requirements for creating and maintaining company quality

systems) was assessed in Mauritius by Kawthar and Vinesh (2011) and it was reported that the benefits/cost have internal, external and financial dimensions.

The external benefits reflect in the market such as increase in market share, access to new markets, being able to export to some markets which were previously closed due to the existence of TBT and customer satisfaction (Casadesus, Gimenez and Heras, 2001). The internal benefits can come in the form of increased production, better competitive advantage, reduction in cost and personnel motivation, among others. Kawthar and Vinesh (2011) noted that in Mauritius the mean sales of ISO certified companies were greater than non-ISO certified between 2000 and 2009. The authors also observed positive and significant relationship between ISO 9000 certification and sales. However, it could be argued that the companies that will likely get certified are naturally stronger in terms of size, finance, technology and management, which also mean better market performance. Thus, the greater sales may be a reflection of stronger companies, which might have contributed to adoption of the certification.

In a study by Mezher and Ramadan (1999), the state of ISO 9001: 2000 certification was conducted using 32 Saudi manufacturing firms. It was found that the major benefits that accrued to the firms include the improvement of customer service and firm's efficiency. However, there are a number of barriers including high cost of implementation, inadequate full commitment of top management, dearth of human and financial resources, employee resistance, no perceived advantage in certification of the service industry, among others (Quazi and Padibjo, 1998; Kawthar and Vinesh 2011)). The implication of this is that the implementation of such standards will depend on whether the anticipated benefits are at least greater than the associated costs of designing, implementing and maintaining the system (Nwankwo, 2005). This is very much similar to the La Porta et al (1999) theory of institutional development, where it posits that economic institutions can only be made when the costs is at least less than the benefits of its adoption (Osabuohien and Efobi, 2011).

Stemming from the above, this study epitomizes the underpinning factor that makes the tendency of countries tilting towards greater protection or less protection. This is shown in Figure 5.1.

From Figure 5.1, the more diverse the national interest is to international protocol, the more protective measures a country will impose with a view to protecting the interests of the citizenry as against adhering to international guidelines. This will occur at segment C in the figure. On the other hand, the closely related a country's national interest is to international protocols the less protective the country will be and as a result, the less restrictive trade will become, which occurs in segment A. The question is why should a country's national interest differ from international protocols or agreements? The response to this is that the international protocol/agreements seek the general (average) welfare of all the constituting members, while the national interest is majorly for the citizenry whose interest the national leaders have 'sworn' to uphold. Another reason that can be advanced is that international agreements will be more encompassing based on the number of countries involved and may entail broader issues relating to more bundles of goods and services. Thus, the gliding from segment A to C or vice versa will depend on a number of factors. Besides the anticipated costs and benefits mentioned earlier, the level of economic development, institutional factors, historical background and trading partners will likely contribute to the gliding process. Hence, it is not too surprising that emerging economies such as BRICS are able to tackle the protection tactics of developed countries such as USA and some EU countries (WTO, 2011; GTA, 2012). This is evidenced in a number of suit cases at the WTO brought about by the BRICS against developed countries.

Segments B and D have same connotation as moderate protection will occur given high international agreement and low national interest, and *vice versa*. Another reason is that some of the protective measures are revenue sources to national governments. In effect, import duties and export taxes are significant components of their revenue especially for developing countries as they accounted for 24.5% and 35.5% of total tax revenue in South Asia and SSA countries, respectively. Thus, to jettison them in 'the name of free trade' is to lose a large proportion of revenue base. Even from the global stand point, the duties were as much as 13.52% and contributed to 10.68%, 10.70% and 14.10% of the tax revenues in MENA, LAC and EAP regions, respectively (World Bank, 2011).

6. Methods of Analysis and Empirical Model

This study engages descriptive, statistical and econometric techniques in achieving its objectives. The descriptive analysis explores content analysis of GTA data. It employs tabular and graphical illustrations to analyse the different trade and protective measures adopted by countries especially for the period 2009-2012. The statistical analysis reports

the summary statistics of the explanatory variables including trade integration, institutional quality, infrastructural quality and economic development. On the other hand, econometric analysis formulates an empirical model that expresses countries' tendency to protect as a function of institutional quality, infrastructural quality and economic development as well as trade integration.

The content analysis approach was employed and the data on protectionism was sourced from the Global Trade Alert (GTA) data set. The GTA data set documents policies taken by countries, which is likely to hamper the operations of free trade around the world. The dataset documents real time policies of countries relating to their trade policies. The dataset covers the period 2009 to 2012 and includes trade policies relating to tariff and non-tariff measures, public procurement and policies on migration, export subsidy and other service sector, trade defense measure, sanitary and phyto-sanitary (SPS) measures, consumption subsidy, public procurement, intellectual property protection, TBT, investment measure, import ban, state trading enterprise, local content requirement, export taxes, bail out, import licences, quota, competitive devaluation, trade finance and sub-national government measures. The GTA dataset includes measures relating to different countries of the world. This study selected 107 countries based on countries that have at least one form of protective measures during the period of study (see the list in the Appendix).

The policies and actions are categorized into three broad groups: Red, Amber and Green. The red category includes those actions that are certainly discriminatory and which have a drastic effect on free trade. The amber categories include those policies and actions whose discriminatory impacts are not certain. This implies that these policies and actions are likely to hamper free trade, but the degree of such an effect on free trade is not certain. The green category includes those policies and measures that support free trade and are obviously anti-protectionism. This study categorized measures for red and amber as protectionism. Similar studies such as Evenett (2011) adopted a related approach to evaluate the extent of trade tensions mounting as a result of the global financial crises.

This study observes that a country will tend to engage in protectionist activities when their national interest takes paramount priority over treaties and trade agreement they may have entered into with other countries in the past. Basically, the study proposes that institutional factors and economic development among others, can explain the countries

tendencies to engage in protective actions. This implies that the possibility that country *'Yi'* will engage in a protectionist action (Yi > 0) or not (Yi = 0) is given by:

$$P(Yi = 1/y) = \{\Pi i \quad \text{if } y=01-\Pi i \quad \text{if} \quad y > 0 \qquad (1)$$

Where Πi is the probability that country *'i'* decides not to put in place a protectionist measure that can hinder free trade based on a set of covariates *Xit* for which the linear relationship can be expressed using a logistic regression framework. Thus, this is represented in equation (2) as:

$$\text{Logit } \Pi it=\ln 1-\Pi it\Pi it=Xit\alpha \qquad (2)$$

In this equation, α is a vector of parameters to be estimated, while *Xit* is a combination of the explanatory variables, which include the quality of institutions, infrastructure development, economic development variables as well as dummy variables signifying the founding members of WTO, developing countries and African countries. Explicitly, the econometric model developed for this study is expressed in equation (3) as;

$$P(Yit = 1/y) = \beta 0i + \beta 1Edevit + \beta 2Infrait + \beta 3Instqit + \beta 4Trdintit + \beta 5dumJi + \mu it \qquad (3)$$

The probability of a country engaging in protective action is the dependent variable and measured as a categorical variable. One (1) was attributed to a country with high rate of protective measure and zero (0) if otherwise. A country is regarded as having a high measure of protectionism if in a particular year the protective measure engaged by the country is above the simple average of the total measures engaged by the countries reported in the GTA dataset. The simple average was first computed by dividing the total measures of all protective actions taken by all the countries in a particular year by the number of countries reported in that year. Then the number of measures taken by each country was compared with the average and any country with protective measures more than the absolute average was categorized as 1 and otherwise 0 for the period (2009-2010)[4]. This is summarized in Table 6.1.

Values on measures of protection for 2011 are in GTA dataset, however, those for the explanatory variables in WDI and WGI ended in 2010. Hence, this study used 2009 and 2010 to have the same period. This differs markedly from Boffa and Olarreaga (2012) that related data from GTA covering measures between November 2008 and December 2010 to averages of explanatory variables from 2004 to 2006.

Table 6.1 Dichotomization of the Dependent Variable

Year	Number of protective measures	Number of countries	Simple average
2009	615	86	7.15 measures
2010	606	106	6.00 measures

From Table 6.1, countries with average measures that are ≥ 7 in 2009 are categorized as 1 (0, otherwise), while in 2010, countries with average measures that ≥ 6 are categorized as 1 (0, otherwise). The reason for this cut-off point is that countries that have average measures that are greater than the global average measure can be said to have relatively high tendency for protectionism. The above dichotomization approach is with a view to apply analysis that deals with categorical dependent variable such as logistic regression and social network. A similar approach (though with trade relations) has been used by Kim and Shin (2002) within the context of Social Network Analysis to explain longitudinal data on international commodity trade between 105 countries (1959-1996) using cut-off points of USD 1 million and USD 10 million.

The independent variables include:

Edev: economic development measured as GDP growth rate (*gdpgrw*) and life expectancy at birth (*Lifexp*)[5].

Infra: infrastructural development measured as logistics performance index (*logistics*). The *logistics* measures the performance of the country with regards to trade logistics as reflected in the overall logistic index, showing the average of the country scores on the efficiency of the clearance process. This includes border control agencies (e.g. customs), the quality of trade and transport related infrastructures (e.g. rail, road, information technology), ease of arranging competitively priced shipments, competence and quality of logistics services,

[5] Attempt was made to include measures such as educational attainment to capture level of human capital development; however, the data were not available for most countries for 2009 and 2010. Also, the per capita GDP and its logarithmic transformation was first included in the model, however there was no much difference in the regression. Hence, it was dropped.

ability to track and trace consignments, and the timeliness of shipments (World Bank, 2012). The value ranges from 1 (lowest) to 5 (highest)[6].

Instq: institutional quality, which captures the quality of institution in a country. As reported in World Governance Indicators (WGI), there are six indicators including: government effectiveness (GE), regulatory quality (RQ), voice and accountability (VA), rule of law (RL), political stability and absence of violence (PS), and control of corruption (CC). However, this study used four of them (GE, RQ, RL and PS) as they provide insight on the process of international relations especially with third party dealings. The data were obtained from WGI as computed by Kaufmann et al (2010). These indicators are standardized on a scale from -2.5 (lowest) to +2.5 (highest). Other indicators of *Instq* engaged are from Freedom House (2011), namely: political rights (PR) and civil liberties (CL). The choice of PR and CL is to complement those of WGI and most importantly it covers a recent period (2009 and 2010 inclusive). The original values range from 1 (highest degree of freedom) to 7 (the least). However, this study transformed the data such that higher values indicate better institutional quality. This is to aid interpretation of results as all other variables are in ascending order.

Trdint: trade integration measured as the difference between export and import and scaled by GDP [i.e. (X-M)/GDP].

DumJ dummy variables (with superscript 'J'= 1-3), which include: 1) WTO founding member *(WTOfnmb)* dichotomized as 1 for countries that are WTO members since inception in 1995 and 0 otherwise as reported in WTO (2012). 2) Developing country dummy (*Developing*) as derived using the UNCTAD's classification based to assign 1 if a country is a developing economy and 0 otherwise. 3) African countries (*Africdum*) obtained by assigning 1 to African countries and 0 to non-African countries.

On the other hand, the implication of protectionism was investigated using two empirical models gleaning on the endogenous growth model and the new trade theory. This is

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Efforts were made to include other indicators of infrastructure such as: paved roads, electricity power consumption, telecommunication usage (internet, telephone and personal computer users per 100 persons), however, data on them were not available for most of the countries in 2009 and 2010 in WDI.

refletive in the choice of explanatory variables for the models apart from the variable of focus (i.e. extent of protective measure engaged by the country in a particular period). Thus, the models 4 and 5:

$$Yit = \beta 0 + \beta 1 Protctit + \beta 2 Labit + \beta 3 Kapit + \beta 4 inflation + \varrho 1it \quad (4)$$

$$Trdit = \lambda 0 + \lambda 1 Protctit + \lambda 2\ Exrit + \lambda 3 Kapit + \lambda 4 Labit + \varrho 2it \quad (5)$$

Where:

Y: per capita income growth rate.

Trd: trade balance (measured as export minus import divided GDP).

Protct: extent of protective measures (proxied by proportion of red to total measure as reported in GTA dataset). The GTA dataset provides information on contemporary protectionism actions and these actions are categorised into three colours (Red, Amber and Green). The Red includes measures that have been implemented and may involve discrimination or have been announced/under consideration, but if implemented will certainly restrict trade. Amber involves measures that are implemented/already announced and if implemented the resultant impact on trade is not certain. The Green includes measures that have been announced/implemented that support free trade (GTA, 2012).

Lab: total labour force.

Exr: exchange rate

Kap: capital captured as the annual growth rate of the gross fixed capital formation.

Inflation: consumer prices (annual %).

e: error term.

it: country and time dimensions (105 countries from 2009-2010).

β, and *λ* : coefficients of the explanatory variables in models.

This study engaged data for 105 countries and African sample, comprising of 25 countries as informed by GTA dataset. Other source of data was World Development Indicators-WDI (World Bank, 2012). Model 4 and 5 engaged the Weighted Least Squares (WLS) technique, which is a type of Generalised Least Squares suitable in handling the problem of heteroscedasticity in a short panel data (Gujarati and Porter, 2009)[7]. The analysis was performed with the aid of STATA 11.1 software.

The WLS is appropriate when the variance of the error term of the sampled countries *(i)* for the

7.0 Empirical Results and Discussions

The section presents some empirical results based on data analysed using GTA dataset, WDI, WGI and Freedom House. The model formulated in equation (3) was estimated using logistic regression (logit) with the aid of STATA 11.1 software. The choice of this is that the model involves a categorical dependent variable (Baum, 2006; Long and Freese, 2006).

7.1 Content Analysis using GTA Data

This sub-section presents the various categories of GTA data on the measures that could be trade liberalising and protective. Figure 7.1 presents the various actions implemented by countries during the period as presented by the GTA data. From the figure, the proportion of measures that can liberalise trade (green) implemented by countries increased from 18.21% in 2009 to 27.48% but later decreased to 26.63% in 2011. Measures that the effects on trade are not certain (amber) ranged from 21.90% to 30.47% for the period. For measures that are certainly protective (red) as percentage to total measures remained considerably higher than other measures. It was close to 60% in 2009, about 50% in 2010 and 42.90% in 2011. In effect, this study observed that the measures in a given year, was higher than those reported in Figure 7.1 as previous years' measures will have cumulative effect in the current year. For instance, a 'face

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period *(t)* is not constant. And in this case, the countries included as sample will have their explanatory variables assuming diverse values. Thus, the problem of heteroscedasticity will arise. Furthermore, the WLS is an efficient method used for short panel data. This study employed WLS for the estimation process. Efforts were made to use dynamic panel data model with a view to handling the issue of endogeneity but it was observed that the process would considerably reduce the degree of freedom given the short time dimension. Each term in the WLS method includes an additional weight that determines the extent each observation in the data set can influence the final parameter estimates. Therefore, using weights that are inversely proportional to the variance at each level of the explanatory variables yields the most precise parameter estimates. The study used the per unit error variances of the series as automatically generated the system, thereby reducing the possibility of the problem of heteroscedasticity.

The mathematical representation of the WLS is represented as:

$$i=1n(yi^*-a.zi-b.xi^*)2= i=1n(yi-a-b.xi)2hi \quad (3)$$

yi* is the dependent variable, xi* are the sets of explanatory variables, while zi is a vector. The WLS will involve the minimisation of equation (3) by scaling the squared residuals for the observations with proportion to the variances. With this, a best linear unbiased estimate and correct standard errors for coefficient estimates are expected.

value' of 50% observed for 2010 for protective measures is actually higher as those measures implemented in 2009 will also be effective in 2010.

Figure 7.1 Trade Liberalising and Protective Measures as % of Total (2009-2011)

Source: Authors' computation

In addition to the above, the details on the respective protective measures for the period 2009 to 2011 are reported in Figure 7.2.

Figure 7.2 Protective measures used in relation to total measures (2009-2011)

Note: 'Others' in the graph include: SPS; Consumption subsidy; Intellectual property protection; TBT; State trading enterprise; Import licences; Quota; Competitive devaluation; Trade finance; Import subsidy; and Sub-national government measure.
Source: Authors' computation.

As can be observed from Figure 7.2 trade defence mechanism and bailout remained most of the widely used measures. For instance in 2009 and 2011, trade defence measure constituted up to 25% of the total measures. Another important measure that is evidenced from the figure is tariff and non-tariff measures that accounted for about 14.23% and 13.88% of the total measures.

After establishing that protective actions by countries have increased since 2008, the study also examined the different instruments of protectionism in the first quarter of 2012. From Table 7.1, the total number of protective instruments used by countries as at the first quarter of 2012 was 67. The most frequently used of the measures reported was bailout and trade defence tactics, which accounted for over 74% of the total protective measures.

Table 7.1 Protective Measures Adopted in 1st Quarter 2012

Note: OSS: other service sector; TDM: Trade defence measure; TBT: Technical barriers to trade; STE: State trading enterprise.

Source: Authors' computation.

7.2 Statistical Analysis

The summary statistics of the variables (except for those that are categorical) are presented in the Table 7.2a. This is to give an overview of the variables that are in the model before the econometric analysis.

Table 7.2a Summary Statistics of Explanatory Variables

Mean	Min	Max	Observations
70.58	46.96	82.93	212
1.87	-17.95	20.40	207
2.98	1.21	4.19	199
-0.04	-0.74	0.30	198
-0.14	-2.50	1.44	214
0.19	-1.72	2.29	212
0.18	-2.06	1.90	212
0.09	-1.91	1.97	212
4.81	1.00	7.00	212
4.94	1.00	7.00	212

Source: Authors' computation

From Table 7.2a, the economic development variables (life expectancy and GDP growth rate) show that on the average, the expected life span of the citizens of the sampled countries was 71 years old approximately. The country with the highest life expectancy had a life expectancy value of approximately 83 years, while the one with the lowest had a value of 47 years approximately. The average GDP growth rate of the sampled countries was 1.87%, which ranges between -17.95% and 20.40%. The results from Table 7.2a show that the mean value for logistic performance was 2.98. The difference between the highest performing country and lowest performing country with regards to this measure is 2.98 as the minimum and maximum values are 1.21 and 4.19, respectively. This shows that there is a disparity between the infrastructural capacities of the countries used for the study.

The indicators of institutional quality as reported in Table 7.2a, show that the mean values of institutional quality for those WGI are -0.14, 0.19, 0.18 and 0.09 for PS, GE, RQ and RL, respectively on a scale of -2.5 and +2.5. The minimum and maximum values range between -2.50 and 2.29. The other measures of institution (political rights-*PR* and civil liberty-*CL*) show that on the average, the sampled countries performed fairly well, with average values of 4.81 and 4.94. Some of the countries had values as high as 7, while some had values as poor as 1. The difference between the country with the best form of political right and civil liberty and the worst form of the same measure was 6.

Further statistical description of the variables was done using the correlation test to investigate the bivariate associations that may exist between the variables, which were reported in Table 7.2b.

Table 7.2b Statistical Analysis using Correlation Test

	Protect	*RQ*	*Lifexp*	*gdpgrw*
Protect	1.00			
Lifexp	0.09	1.00		
Gdpgrw	0.03	-0.37	1.00	
logisticsov	0.21	0.67	-0.27	
Trdint	0.20	0.45	-0.14	
PS	-0.11	0.44	-0.38	
GE	0.00	0.71	-0.34	
RQ	1.00-0.01	0.65	-0.42	
RL	0.900.02	0.68	-0.36	1.00
PR	0.730.01	0.48	-0.37	0.69
CL	0.79-0.02	0.51	-0.43	0.74

Source: Authors' computation

From the Table, the variables for economic development (GDP growth rate and life expectancy), had a positive association with the probability of a country engaging in a

protective action. Similarly, the Table shows that a country with better infrastructure (logistic performance) and trade integration will likely engage in a protective action. This is evidenced by the positive association between the variables (*Protect, logisticsov and Trdint).* The institutional quality variables show mixed evidence as some of the variables (*GE, RL* and *PR*) were positively associated with the likelihood of a country engaging in protective actions, while the others (*PS, RQ* and *CL*) were negatively signed.

Inference is not drawn from the correlation analysis due to the fact that it is a bivariate form of analysis. At any rate, the test implies that there is no issue of multicollinearity particularly given the understanding that the respective indicators of institutional quality and economic development are taken in step-wise. This is in contrast to the model developed for this study, which was in multivariate form. The logistic regression was used to draw inference with regards to the relationship existing between the variables.

7.3 Econometric Analysis

The empirical analysis is grouped into two: the factors informing protective actions by countries and the implication of such protective actions. The first stage reports the result obtained from the logistic regression for the estimation of equation (3) as specified in section 6.2. The results are reported in Tables 7.3a and 7.3b, using indicators of economic development and other explanatory variables accordingly. From the Tables, the test statistics presented in the last segments such as the Pseudo R2 and their various probability values are statistically significant. This underscores that the chosen explanatory variables are jointly significant in explaining the likelihood of a country engaging in a protective action. This means that the estimations can be relied upon for useful inferences.

From Table 7.3a, it could be observed that using life expectancy (*lifeexp)* as indicator of economic development, there is a likelihood that less developed countries have higher tendencies of engaging in trade protective measures as reflected from the negative signs of the variable in all the columns (I,...,X). However, this variable was significant only in columns I and IX. A close investigation of table 7.3b reveals that using the growth rate of GDP as indicator of economic development, the variable has mixed signs as in columns I-IV it was negative, while in columns V-X it was positive, but was not significant in any of the columns. This suggests that neither a country's economic size nor the level of development will necessarily create or induce its tendency to protect. This picture

becomes clearer on the examination of developing country dummy in both tables, as the variable had a positive value, which was not significant at 10%.

Table 7.3a Logistic Regression using Life Expectancy

Dependent Variable: Tendency of Country Engaging in Protective Action										
	I	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*
Lifeexp	-0.041c (0.095)	-0.029 (0.287)	-0.007 (0.791)	-0.026 (0.339)	-0.016 (0.559)	-0.039 (0.128)	-0.033 (0.205)	-0.041 (0.101)	-0.134a (0.002)	-0.029 (0.2662)
Trdint	3.668b (0.032)	4.229b (0.018)	3.438c (0.053)	2.989c (0.089)	3.048c (0.085)	2.783 (0.103)	2.588 (0.125)	3.620b (0.042)	4.135b (0.014)	3.094c (0.080)
Logistic sov	0.946b (0.018)	1.791a (0.000)	1.101a (0.000)	1.757a (0.000)	0.999a (0.000)	1.287a (0.005)	1.477a (0.002)	1.751c (0.075)	2.227a (0.004)	1.175a (0.008)
Ps		-0.9								

	74a (0.000)				
Ge		-1.713a (0.000)			
Rq			-1.401a (0.000)		
Rl				-1.490a (0.000)	
Pr					-0.1

	41a(0.0000)			
Cl		-0.298b(0.025)		
Wtofnmb			0.815c(0.054)	
Africdum				-2.507a(0.009)
Developing				0.662

Cons	-0.9489(0.4888)	-4.588b(0.0014)	-9.542a(0.000)	-7.227a(0.001)	-9.057a(0.001)	-1.419(0.316)	-1.627(0.255)	-0.911(0.511)	5.284b(0.050)	(0.162) -2.886(0.1422)
Pseudo R2	0.070a(0.0002)	0.158a(0.0000)	0.168a(0.0000)	0.164a(0.0000)	0.158a(0.0000)	0.081a(0.0002)	0.097a(0.0000)	0.089a(0.0001)	0.105a(0.0000)	0.080a(0.0002)
Log likelihood	-1000.2766	-990.7871	-989.2914	-989.7145	-990.3455	-998.5567	-996.8667	-998.3005	-996.4922	-999.2668

Note: Probability values are in parenthesis. Superscripts a,b and c represent significant at 1, 5 and 10%.
Source: Authors' computation.

Some authors like Tilat (2002) and Osabuohien and Egwakhe (2011) support this position based on their argument that trade relations and economic development may have no significant relationship. Similarly, Milner and Yoffie (1989) noted that the levels of economic condition are not necessarily the reason for neither protectionism nor free trade. This implies that a country will tend to engage in a protective action not necessarily because of the buoyancy of its economy. More evidently was the scenario

from the global financial crises, where countries at different levels of development were engaged in protectionist actions irrespective of their levels of development (Datt et al. 2011). Thus, it could be said that there are other salient and crucial factors that tend to make a country engage in protective measures other than its level of development.

Table 7.3b Logistic Regression using Economic growth rate

Dependent Variable: Tendency of Country Engaging in Protective Action										
	I	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*
Gdpgrw	.0346 (0.3223)	-0.009 (0.802)	-0.005 (0.893)	-0.020 (0.602)	-0.013 (0.732)	0.018 (0.633)	0.001 (0.974)	0.029 (0.422)	0.040 (0.252)	0.004 (0.925)
Trdint	3.415b (0.064)	4.089b (0.031)	3.709c (0.051)	2.999 (0.110)	2.997 (0.107)	2.687 (0.142)	2.535 (0.159)	3.563c (0.067)	3.216 (0.083)	2.929 (0.117)
Logisticsov	0.644c (0.051)	1.538a (0.001)	3.033a (0.000)	2.616a (0.000)	3.030a (0.000)	0.968b (0.014)	2.441a (0.003)	4.225 (0.232)	5.311 (0.131)	1.001b (0.015)
Ps		-0.9								

	96a(0.0000)			
Ge		-1.722a(0.0000)		
Rq			-1.502a(0.0000)	
Rl				-1.544a(0.0000)
Pr				-0.1

					55 (0.147)
CI					-0.342b (0.014)
wtofnmb				0.768c (0.072)	
africdum			-0.526 (0.368)		
developing		0.813 (0			

										.113)
cons	-3.034a (0.005)	-5.874a (0.000)	-9.846a (0.000)	-8.563a (0.000)	-10.002a (0.000)	-3.203a (0.004)	-3.041a (0.006)	-2.880a (0.009)	-2.614b (0.024)	-4.533a (0.002)
Pseudo R2	0.068a (0.003)	0.152a (0.000)	0.169a (0.000)	0.166a (0.000)	0.157a (0.000)	0.076a (0.003)	0.096a (0.000)	0.084a (0.001)	0.072a (0.004)	0.080a (0.002)
Log likelihood	-99.041	-90.054	-87.786	-88.091	-88.999	-97.554	-95.437	-97.330	-98.617	-97.728

Note: Probability values are in parenthesis. Superscripts a,b and c represent significant at 1, 5 and 10%.

Source: Authors' computation.

In view of this, this study investigates other explanatory variables that are reported in the Tables 7.3a and 7.3b. Most importantly, the respective institutional variables using those of WGI (*PS, GE, RQ, RL*) and Freedom House (*Pr* and *Cl*) are all negatively signed, indicating that countries with weaker institutions tend to relatively protect more than those with stronger institutions. This is re-echoed as almost all the indicators of institutional variables in both Tables are statistically significant at 1% and 5%, except *PR*

in column V of Table 7.3a. This denotes that institutional quality in a country is a crucial determining factor in the relativity of a country's inclination towards protectionism. The implication of this finding is that as a country's institutional quality improves, the likelihood of being protective will become slimmer. This may be justified based on the fact that the quality of a country's institutions will be able to guide and guard the economic activities of the country without resorting to external mechanisms.

A further investigation of the components of the institutional quality variables using WGI reveals that government effectiveness (GE) is most relevant in determining the likelihood of a country's protection, which is followed by rule of law (RL), regulatory quality (RQ) and political stability (PS). The indicator of infrastructural development was positive and significant in all the columns with the exception of column IX in Table 7.3b. This suggests that infrastructural development in the country with regards to the logistic performance has a bearing on the tendency of a country to protect. This implies that the better the country's infrastructure in terms of logistics performance, the higher the likelihood of the country to engage in a protective act. This is expected as countries with better infrastructure are already being 'patronized' by other countries in terms of trade relations. This is because better infrastructure would reduce the costs of trade by the relating country. In this regard, the country can have the audacity to engage in protectionist actions bearing in mind that the relating country may not necessarily back out because of the attendant low cost incurred in trading with them. This is unlike the country with poor infrastructural facility, which hitherto has been experiencing 'epileptic' trade relations with other countries because of the high cost of trading with them. Such countries may not have the will power to engage in protective actions.

The trade integration (*tdint*) variable was significant and positive in most of the columns, giving a kind of paradoxical scenario that the more a country engages in trade, the more likely it is to protect. The reason that can be advanced from this scenario is that when a country trades more, they have more to offer in terms of export in the world market and the relative cautious actions taken to engage in protection. The series of trade litigation involving US, Russia, China, India and Mexico among others are handy testimonies in this regard (ICTSD, 2012 a-e). Some of these actions could be retaliatory or otherwise (Baldwin and Evenett, 2009; Datt et al, 2011; Boffa and Olarreaga, 2012). The reason advanced for this may be because of the submissions of Stiglitz (2002), Winters and Mackay (2004) and Bhagwati (2009), that trade liberalization may have a counterproductive effect on the economy of a country. So in order to avoid this, a

country that is better integrated with the world market may likely engage in protective acts to regulate their vulnerability.

Another variable is that the dummy for WTO founding members had a positive sign and was significant in both tables. The implication of this is that founding members of WTO will tend to protect more than others, which may be interpreted based on the fact that founding members may tend to have domineering influence *vis-a-vis* likelihood to protect. Extant occurrences since the global financial crises support this assertion.

Implications of Protectionist Actions

The results of the estimation were presented in Table 7.4 for the sampled countries and African countries sub-sample. The examinations of the reliability of the estimations using the probability value of the F-statistics, which was significant at 1% shows that the results are of good fit and represent the best linear unbiased estimates.

Focusing on the explanatory variable of interest, Table 7.4 reveals that the extent of protective measures implemented by countries (*Prop_red*) had negative and significant impact on per capita income both for the entire sample and only African countries. The negative impact on per capita income might have resulted from the protective measures engaged by countries that impact on economies probably through lowered level of capital formation occasioned by global financial crises. This becomes more evident when one considers another explanatory variable, growth rate of capital formation that had a surprising negative sign for the period (2009-2010). This might have resulted from the issue of 'capital flight' and 'crash' in the stock market as most economic activities became 'gloomy' over the period. The above tends to aggress with Feenstra (1992) who noted for the US economy that domestic producers benefit from protectionism but consumers suffer increased prices as protectionism denotes less international competition.

The impact of protective actions on trade balance had negative sign denoting the adverse influence of protectionism on trade balance. It was not significant for the entire sample but for the African countries, it was significant at 5%. This finding is of interest as it has some implication for policy. In essence, the contemporary protectionism adversely affects African countries' trade outcome as protectionism inhibits their trade (especially export) flows. This typifies the structural ineptitude of most African economies given that their export baskets are characterised by unprocessed raw materials and commodities, which suffered a great deal with regards to price crash after 2007/08 global economic

crises. Thus, African economies are more vulnerable to adverse external trade policies. This is imperative as there was significant burst in commodities prices that resulted from decreased global demand. Akin to the above are the issues of low supply chain and value addition on unprocessed raw materials and commodities in the world market. Also the fact that most African countries import finished products indicating their increased import bills accompanied by reduced export for their goods re-echoes the negative impact on the trade balance.

The policy recommendation from the study is that it is imperative for African countries to diversify their export base in order to mitigate the adverse effect of global protectionism. This will involve processing raw materials, boosting domestic efficiency by promoting infrastructural provisions, improving transport system among others. Thus, reducing export constraints as most African countries do not have the wherewithal (such like technical, financial) to contend with the developed countries regarding their protective actions. This is exemplified as it is not common (apart from South Africa) to see African countries initiate trade dispute against a developed countries that contravenes the WTO rules. Thus, improving domestic effectiveness of African economies is a better policy option than *crying foul* at protective actions. The role of Africa's RTAs in this regard cannot be overemphasised. This concurs with Osabuohien and Efobi (2011) submission that aiding improved institution qualities by Africa's RTA is germane for improving the continent's trade outcome.

Table 7.4: Impact of Protectionism on Per capita income and Trade Balance

	All		*African countries*	
Dependent variable	*Per capita Income*	*Trade Balance*	*Per capita Income*	*Trade Balance*
Cap	-1.2469a	0.0555 a	-0.89	0.0725 a

	(0.0000)	(0.0000)	75a (0.0003)	(0.0000)
Labour	2.0295 a	0.0392 a	0.76068b	0.01588
	(0.0000)	(0.0000)	(0.0211)	(0.3538)
Prop_red	-0.0222 a	-0.0001	-0.0131a	-0.0006 b
	(0.0000)	(0.5751)	(0.0040)	(0.0255)
	-0.1231 a		-0.1372a	
Inflation	(0.0000)		(0.004)	

Exr		0.0001 a (0.0011)	8) 0.0001 a (0.0001)	0.0001 a (0.0001)
Const	0.2724 (0.8446)	-0.7316 a (0.0000)	12.7470a (0.0000)	12.9650 a (0.0070)
R2	0.9843	0.9762	0.6421	0.7268
F-test P-value	(0.0000)a	(0.0000) a	(0.0000)a	(0.0000)a

Note: Probability values are in parenthesis. Superscripts a,b and c represent significant at 1, 5 and 10%.
Source: Authors' computation.

Other results in Table 7.4 reveal that price changes (inflation) had significant and inverse relationship with per capita income. This follows economic theory that price changes in the basket of goods purchased by the consumer will exert pressure on their level of income. Labour variable had a positive impact on per capita income but a negative impact on trade. Exchange rate had positive and significant impact on trade balance. The positive impact shows that exchange rate appreciation would enhance export value because producers would benefit from the appreciated exchange rate. This might also be interpreted to mean that exchange depreciation will not be an effective trade policy instrument during economic crises. However, given the fact that trade balance was

considered, the effect might have also resulted from increased prices of imported goods when there is depreciation.

8. Summary of Major Findings and Concluding Remarks

One of the core preoccupations towards cooperation by countries is to boost mutual benefits among members especially with respect to trade as encapsulated in WTO and various RTAs protocols. This is particularly evidenced as the cumulative RTAs across the world between 1990s and 2011 have tripled. However, despite this 'gospel' of free trade, the GTA reports varieties of protective measures that have been initiated by many countries that are signatories to the WTO as well as a number RTAs; this became more pronounced after the 2008 global financial crises. This sort of contradiction forms one of the motivations for this study which examines the tendency of countries' gliding towards free protectionism and how countries' institutional quality, level of infrastructure and economic development can influence their relativity towards protectionism.

To achieve the objectives, the study engaged three main forms of analysis. These include content analysis of the GTA's protective measures, statistical investigation and econometric analysis. The econometric analysis formulates an empirical model that relates countries' tendencies to protect as a function of some explanatory variables such as quality of institutions, infrastructure, level of economic development, trade integration, among others. From the analyses, the main findings of the study are summarised as herein.

For the first quarter of 2012, the number of protective measures put in place was about 67, which involved mainly bail out and trade defence instruments that account for more than 74% of the total measures. Between early 2009 and late 2011, the trade defence instruments of protection and bailout represented about 25% of the total measures, while other commonly used protective measures included: tariff and non-tariff that amounted up to 14.23% and 13.88% of the total measures, respectively.

The econometric result at first seems to suggest that (using life expectancy and economic growth rate as indicators of economic development), as a country develops the less likely its tendency to engage in trade protection. However, this allusion was not substantiated by the fact that these variables were not statistically significant in most of the regressions. The concluding remark emanating from this finding is that a country's economic development does significantly influence its likelihood for trade protection.

This submission is further confirmed as developing country dummy in all the regressions had a positive sign but was not statistically significant. Therefore, it could be concluded that a country's level of economic development is not an influencing factor with regards to its tendency to engage in trade protectionism.

More importantly, the study found that the respective indicators of institutional quality had negative signs that are statistically significant. The implication of this finding is that as a country's institutional quality improves; the less likely it is to engage in protectionism. This may be justified by the fact that a country's domestic institutions such as the quality of regulation, rule of law, and effectiveness of the government will be able to guide and guard the economic activities of the country, which will imply less reliance of external mechanism. This is evidenced from phenomenon where countries that are known to have internal security challenges usually have stringent policies: immigration policies, for instance.

On the other hand, the results from the study tend to suggest that the level of infrastructural development in the country with regards to the logistic performance has some influence on the tendency of a country to protect. This means that as a country's logistics performance improves, the higher the likelihood of the country to engage in trade protection. Furthermore, it was observed that trade integration was positive and statistically significant suggesting that the more a country engages in trade, the more the tendency to protect. This may be due to the fact that when a country trades more (both export and import), it tends to have more stakes in the world market and as result it will be more *vigilant* with respect to guiding against possible trade losses, while at the same time maximising trade benefits. This is not too far-fetched as countries known to be major players in the global trading arena are also regular complainants of trade cases. The issue of retaliation could also be another plausible reason.

Examining WTO founding member dummy, it was revealed that the variable had a positive significant influence on the tendency to engage in protectionism. This seems to imply that the founding members of WTO will tend to be more protective than others, which may stem from the fact that founding members are more likely to have domineering influence than others.

On the other hand, it was found that protective actions had negative impact on trade balance, which was only significant for the African countries. Thus, the recent trade

protectionism impacts adversely on the trade outcome of African countries as most of them export mainly unprocessed raw materials. This suggests the need for African countries to diversify their export capacities by putting in place mechanisms that will facilitate the processing of raw materials and enhancing trade infrastructure.

The study observes that inasmuch as there are differences between countries' national interest and the contents of international trade protocols, there will always be an inclination of countries to engage in some form of protective measures as countries seek to protect the interest of their citizenry. Thus, the less synchronised countries' national interests are to international protocols, the more the tendency to protect, which will make the free trade-protectionism debate unending. The influence of countries' institutional quality is pivotal in this process. The study concludes that the debate surrounding free trade-protectionism will persist with some grave implications especially in Africa.

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Appendix: List of Sampled Countries

They include: Afghanistan, Algeria, Angola, Argentina, Armenia, Australia, Austria, Bangladesh, Belarus, Belgium, Bolivia, Bosnia, Botswana ,Brazil, Bulgaria, Cameroon, Canada, Chile, China, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Democratic Republic of Congo, Denmark, Dominican Republic, Ecuador, Egypt, Estonia, Ethiopia, Finland, France, Gabon, Gambia, Germany, Ghana, Greece, Hungary, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea, Kuwait, and Kyrgyz Republic. Other are: Latvia, Lebanon, Lithuania, Luxemburg, Malawi, Malaysia, Malta, Mauritania, Mexico, Mongolia, Morocco, Mozambique, Namibia, Netherlands, New Zealand, Nigeria, Northern Island, Pakistan, Paraguay, Peru, Philippine, Poland, Portugal, Romania, Russia, Saudi Arabia, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan (before the creation South Sudan), Sweden, Switzerland, Syria, Taiwan, Tanzania, Thailand, Togo, Trinidad and Tobago, Turkey, United Arab Emirate, Uganda, United Kingdom, Ukraine, United States of America, Uzbekistan, Venezuela, Vietnam, Zambia, and Zimbabwe

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