

THE IMPACT OF TRADE LIBERALISATION ON COTE D'IVOIRE

KORE MARC ANTOINE GUEI

**THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF**

DOCTOR OF PHILOSOPHY (ECONOMICS)

in the

**FACULTY OF BUSINESS AND ECONOMIC SCIENCES, DEPARTMENT OF
ECONOMICS AND ECONOMIC HISTORY**

of the

NELSON MANDELA METROPOLITAN UNIVERSITY

PROMOTER: DR GIFT MUGANO

DECEMBER 2017

**DEPARTMENT OF ACADEMIC
ADMINISTRATION**

EXAMINATION SECTION

SUMMERSTRAND NORTH CAMPUS



PO Box 77000

Nelson Mandela Metropolitan University

Port Elizabeth

6013

Enquiries: Postgraduate Examination Officer

DECLARATION BY CANDIDATE

NAME: **KORE MARC ANTOINE GUEI**

STUDENT NUMBER: **214278883**

QUALIFICATION: **PhD (ECONOMICS)**

TITLE OF THESIS: **THE IMPACT OF TRADE LIBERALISATION ON
COTE D'IVOIRE**

DECLARATION:

In accordance with Rule G4.6.3, I hereby declare that the above-mentioned thesis is my own work and that it has not previously been submitted for assessment to another University or for another qualification.

SIGNATURE:

DATE:

THE IMPACT OF TRADE LIBERALISATION ON COTE D'IVOIRE

ABSTRACT

The process of trade liberalisation and market-oriented economic reforms was initiated in many developing countries in early 1980s; and it intensified in 1990s. In 1994, Cote d'Ivoire was assisted by the IMF to implement trade-policy reforms under Structural Adjustment Programme (SAP). After adopting SAP, the country witnessed soaring balance-of-payment problems, contraction of output, unemployment and the loss of government revenue. Several factors, which were at play resulted in dismal economic performance under SAP. In order to consolidate gains in competitiveness, and achieve high and sustainable growth, the Ivorian authorities coordinated efforts to establish and intra-regional custom tariffs among the member of the West African and Monetary Union (WAEMU), the Economic Community of West African States (ECOWAS), World Trade Organisation (WTO), Economic Partnership Agreements (EPAs) and bilateral agreements.

It is against this background that this study is undertaken, in order to evaluate the impact of different trade-policy regimes on trade, welfare and revenue in Cote d'Ivoire. This study used one model: World Integrated Trade Solutions/Software for Market Analysis and Restrictions on Trade (WITS/SMART). The WITS/SMART model was used because of its ability in analysing the tariff effect of a single market on disaggregated product lines. The model also has the capability to analyse the effects of trade-policy reforms in the presence of imperfect substitutes.

Using the WITS/SMART model, the study considered seven trade-liberalisation frameworks for Cote d'Ivoire: full implementation of the ECOWAS free trade agreement (FTA), ECOWAS common external tariff (CET), WAEMU CET, WAEMU FTA, EPAs, BFTAs and WTO FTA.

The WITS/SMART model reveals that all trade liberalisation scenarios may cause welfare gains – due to the plummeting of prices. However, in all trade liberalisation scenarios, welfare gains were found to be insignificant. In all cases, welfare gains fell far short of compensating for revenue loss. The impact of trade liberalisation on exports and imports was met with mixed reactions. For the WAEMU customs union and the ECOWAS customs union, and WTO FTA,

trade reforms are likely to face serious balance-of-payment problems, as imports exceeded exports by significant margins.

With respect to revenue loss, of all trading arrangements, the WTO FTA presents a serious challenge for Cote d'Ivoire revenue followed by BFTAs, ECOWAS FTA, EPAs, ECOWAS CET, WAEMU CET, and WAEMU FTA with anticipated revenue losses. Another challenge for Cote d'Ivoire is the presence of trade creation effects, which were observed in all trade reform scenarios. From this study, it appeared that WAEMU CET poses serious threats of trade creation followed by WTO FTA, BFTA, SADC FTA, COMESA CET, SADC CET, EPAs and WAEMU FTA.

Specifically, the study highlighted that Cote d'Ivoire, on balance loses out on trade liberalisation, mainly from revenue loss and possible de-industrialisation from trade-creation effects. The study has also revealed that Cote d'Ivoire offers excessive tax exemptions, which worsens the fiscal position of the country in the face of trade liberalisation. Hence, based on the findings, this study recommends that Cote d'Ivoire needs to call for the design of a financial facility aimed at assisting industries affected by trade-creation effects.

The country needs to consider improving the collection of revenue from alternative sources, such as VAT, excise duties, personal and company taxes and excise duty, in order to cushion itself against the revenue loss impact of trade reforms. Government could also consider widening the tax base, by taxing the informal sector, which has been growing rapidly in the past years. In addition, policies aimed at exports promotion, such as export subsidies, trade finance and the strengthening of trade-promotion organisations should be considered.

The outcome of this study provides a wake-up call to developing countries engaged in the WTO negotiations and other regional trading arrangements.

DEDICATION

This thesis is dedicated to my parents, my Father Prof Guei Kore and my Mother Mrs Boidy Ahou Rose Epse Guei for providing me the financial and the moral support throughout this journey.

This thesis work is also dedicated to my love one, Aurelia N’Goran who has been a constant source of support, motivation and encouragement during the challenges of this postgraduate life.

I also dedicate it to my brothers and sisters, Guei Kore Cyril, Guei Kore Valery, Guei Kore Elie Charles and Guei Arlette whose affection and encouragement day and night made me able to get such honor – and *in memory of my late uncle Guehi Zackoky*.

ACKNOWLEDGEMENTS

The research study document was not produced by way of a solo flight. A number of individuals and organisation were instrumental in the success of my thesis.

My first appreciation goes to my promoter, Dr Gift Mugano, for the supreme support and enlightened guidance he gave me throughout the research study. You have afforded me unquestionable experience in carrying out a robust research; and for this, I am grateful.

Secondly, I wish to unreservedly thank Professor Pierre Le Roux, for his suggestions and unwavering support. I am specifically grateful to your suggestions and advices on the restructuring and flow of my thesis.

Thirdly, I would like to thank Prof R. Ncwadi, Dr Edwin Simiyu for peer-reviewing my thesis. I also would like to thank my promoter again Dr Gift Mugano for his invaluable suggestions on the flow and the structure of the thesis.

In addition, I would like to express my deep gratitude to Dr Michael Sale, for his support throughout this academic journey.

Moreover, I wish also to extend my appreciation to the Nelson Mandela Metropolitan University for sponsoring my studies.

I also want to extend a million thanks to the Dedree Erasmus and Judy Keir for their unwavering assistance all the way in my academic journey.

I especially appreciate the efforts of my associates at the Nelson Mandela Metropolitan University, for their support and encouragement in achieving this goal. My flame was lit by my colleagues: Clement Moyo, Elizabeth Moodley, Badroen Ismael, Sharon Tessendorf, Leward Jeke, Clifford Johnson, Genevieve Pereira, Professor Hendrik Lloyd, Professor Charles Wait, Anyikwa Izunna Chima.

To all of you I am grateful!

However, I would like to retain full responsibility for the views expressed in this study, and for any deficiencies and infirmities that might have escaped my observations.

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LIST OF ABBREVIATIONS OR ACRONYMS

ACP	African Caribbean and Pacific
AFDB	Africa Development Bank
ASEAN	Association of Southeast Asian Nations
BFTA	Bilateral Free Trade Agreement
CET	Common External Tariff
CGE	Computable General Equilibrium
CTS	Consolidated Tariff Schedule
CET	Common External Tariff
CU	Customs Union
COMESA	Common Market for Eastern and Southern Africa
COMTRADE	Common Format for Transient Data Exchange
DRC	Democratic Republic of Congo
EAC	East Africa Community
ECDPM	European Centre for Development Policy Management
ECOWAS	Economic Community of Western African States
EPAs	Economic Partnership Agreements
EPZs	Exports Processing Zones
EU (28)	European Union Group of Eight - Eight
ESA	Eastern and Southern Africa
FDI	Foreign Direct Investment
FTAs	Free Trade Agreements
GDP	Gross Domestic Product
HS	Harmonised Commodity Description and Coding System
IDB	Integrated Data Base
IMF	International Monetary Fund
LDC	Least Developed Country
MERCOSUR	Common Market of the South
MFN	Most Favoured Nation

MARD	Ministry of Agriculture and Rural Development
MOF	Ministry of Finance
OECD	Organisation for Economic Co-operation and Development
OTEXA	Office of Textile and Apparel
NAFTA	North American Free Trade Agreement
NTBs	Non Trade Barriers
NTP	National Trade Policy
PAYE	Pay As You Earn
PTA	Preferential Trade Agreement
RTA	Regional Trade Agreement
ROW	Rest of the World
RTAs	Regional Trade Agreements
SADC	Southern Africa Development Community
SMART	Software for Market Analysis and Restrictions on Trade
TRAINS	Trade Analysis Information systems
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference for Trade and Development
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
USA	United States of America
USAID	United States Aid for International Development
USD	United States Dollar
VAT	Value Added Tax
WB	World Bank
WITS	World Integrated Trade Solutions
WTO	World Trade Organisation

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Trade liberalisation is one of the most promising and challenging task for a globalising world. The world trade organisation is an institution that serves the interest of countries and regions within the ongoing process of trade negotiations (WTO, 2015).

Some economists believe that free trade enhances welfare and growth. This theory is supported by Melnikas (2015) when he concluded that generalized trade liberalization in the form of unilateral tariff or the reduction of non-tariff barriers to trade improve growth performances. In addition, research that examined the relationship between trade reforms and economic growth in the 1990s revealed that trade reforms are associated with high growth though the strength of the relationship varies across countries. However, in the 1990 the results from trade reforms have varied considerably among nations and have sometimes fallen short of expectations. The distributive effects of trade liberalisation are diverse. Trade liberalisation improves aggregate welfare but the gains are small and unequally distributed (UNCTAD, 2012).

Given the complex dimension of trade liberalisation, the first section of this chapter will provide some background information on how trade liberalisation has affected economies.

Thereafter, the problem statement of this study will be presented. This is followed by a discussion on the background of the study, the problem statement, the objectives of the study, the hypotheses in the study, and the layout of the study, and finally, the summary.

1.2 Background to the Study

Economists have long acknowledged the gains from international trade. Throughout centuries, international trade has brought different parts of the world together, helped spread ideas and knowledge, and affected the course of regions and nations.

The world economy has witnessed a massive trade liberalization of world trade since 1950. This occurs under the aegis of the General Agreement on Tariffs and Trade (GATT) which came into existence in 1947 and was replaced by the World Trade Organisation (WTO) in 1993.

Brühlhart (2011) noted that many developing countries opted for trade liberalisation as an alternative after the import substitution policies in the 1950s-1970s became less meaningful. However, a turnaround of protectionism started in the industrialized nations and disseminate to the developing countries in the 1970s. Trade reforms were later expanded and strengthened in the 1980s and the 1990s across the developing part of the world: East Europe, Latin America, East Asia, South Asia, and to a smaller extent the Middle East and Africa (De Sousa, Mayer & Zignago 2012).

Economists tend to believe that movement towards freer trade, on balance, provide positive benefits. Caliendo and Parro (2015) looked at the trade and welfare effect of the North American Free Trade Agreement (NAFTA). They found that NAFTA increased real incomes in Mexico by 1.3%. Their findings support the notion that lowering barriers to trade when they are already low improves welfare.

The process of trade liberalisation and market-oriented economic reform started in many developing countries in the early 1980s; and it intensified in the 1990s (United Nations Conference for Trade and Development (UNCTAD, 2005).

UNCTAD (2005) has identified three categories of countries implementing trade-policy reforms. The first group consists of several countries in East Asia, which continued their own dynamic industrial and trade policies, which were initiated in the 1960s. The second group includes many

countries, mostly in Africa, which have gone through the reform programmes designed and dictated by the Bretton Woods Institutions, these being the World Bank and the International Monetary Fund (IMF). The third group comprises several Latin American countries that undertook economic reform since the early 1980s, initially under pressure from the Bretton Woods Institutions.

The world trade however, has witnessed an increase in its volume between 2004 and 2014. The increase in trade has largely been driven by the rise of trade between developing countries (UNCTAD, 2015). The participation in international trade varies significantly among developing regions. BRICS countries account for an important part of developing countries' trade, especially with respect to exports of intermediates and manufacturing products. Other developing countries such as Cote d'Ivoire participate in a much more limited way because they are largely confined with the supply of raw materials (UNCTAD, 2015).

The contents and philosophy of the trade-reform programmes implemented in these three categories mentioned above were quite like those designed by the Bretton Woods Institutions, also called the “Washington Consensus”. Universal and uniform trade liberalisation was a part of that “Consensus”, which in the view of this study caused a fundamental problem – because countries are at different level of developments, hence, a one-size-fits-all policy can not be realistic.

In addition to trade liberalisation, reform outside tariff cuts and programmes, which were part of the Bretton Woods Institutions included mainly: capital-account liberalisation, devaluation at the early stages of reform to compensate for trade liberalisation, fiscal and financial reform through contractionary macroeconomic policies, such as budget cuts, increases in interest rates and privatisation (UNCTAD, 2005).

In 1980, Cote d'Ivoire was assisted in implementing these reforms by the Bretton Woods Institutions following the decline in international prices of agricultural products. The government then engaged in structural adjustment programs (SAPs) which lasted throughout the 1980s – and

was financed by the World Bank (WB) and the International Monetary Fund (IMF). The aim of the structural adjustment program was to allow developing countries to be more market oriented and focus on production and trade to revitalize their economy and reduce poverty. Structural adjustment programs, however, have failed to reduce poverty and provide sustainable economic growth (Nwabugo, 2011; Kingston 2011; Ogbonna, 2012).

The Objective behind these reform programmes was to minimise government's role in the economy to that of merely providing a necessary institutional framework. In this regard, a free market economy takes centre stage. This then becomes a catalyst for growth and the diversification of exports and output structure in favour of manufactured goods (Sulaiman, Migirao, and Aluko, 2014).

Following this wave of trade reforms, over the years, a number of countries have been liberalising their economies through various established regional trading blocs. This has resulted in regional trade arrangements (RTAs) becoming dominant features of the world trade system (Khorana, Kimbugwe and Perdakis, 2009). In Africa, the Economic community of Western African States (ECOWAS), the Southern Africa Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA) were no exception to this phenomenon. Recent studies reveal a trade slowdown over the past three years (2012 to 2015) spread across most of the developing and developed countries (UNCTAD, 2015).

Among the developing countries, the trade slowdown reached all regions including Sub Saharan Africa. During the last decade international trade was characterized by a progressive shift in the use of trade policy instruments. Although tariff protection remains an important instrument only in certain sectors for a limited number of countries, the use of other non-tariff trade restrictive measures has become more widespread. The latest financial crisis which has been characterized by volatile exchange rates and competitive devaluation, has had important impact on international trade flows. The European Central Bank (2016) finds that a deceleration in the pace

of trade liberalization and the ongoing changes in the Chinese economy also explains the global slowdown.

Also, the rise in income inequality in advanced economies have spread populism ideas and increase protectionism (Centre for European Reform, 2016). Tariffs remain relatively high and tariff peaks continue to affect important sectors – including some of key interest to low income countries such as agriculture, apparel, textiles and leather products. Trade liberalisation, however, through regional integration, has been instrumental in the economic development of countries through an increase in trade volumes, technology transfer, the promotion of political stability and the promotion of social cohesion – especially in the region of Sub-Saharan Africa (Menyah, Nazlioglu & Wolde-Rufael 2014).

Although trade-liberalisation measures present great benefit – especially to less developed region such as Africa, many African countries are striving to diversity their exports. Agriculture and natural resources still represent a large share of their exports baskets (UNCTAD, 2015).

With regards to trade policy and markets access, Cote d’Ivoire has been a member of the Economic Community of Western African States (ECOWAS) since 1973 (ECOWAS, 1975). The country has shown willingness to comply with the multilateral trading system which it considers to be a triggering factor for its regional integration and development. Hence it became a member of the West Africa Economic and Monetary Union (WAEMU) and the World Trade Organisation (WTO) in 1994 and 1995, respectively (WAEMU, 2017). In 2008 the country also sets up an initial framework for an Economic Partnership Agreement (EPA) with the European Union (European Commission, 2014).

1.2.1 Benefits of Trade Liberalisation

The WTO general agreement on trade and services has defined the fundamental architecture for addressing the trade-restrictive services regulation. The general agreement on trade and services (GATS) provides for the scheduling of measures that result in better treatment for domestic suppliers and a less favourable treatment for foreign suppliers.

Regional trade agreements (RTAs) can also provide opportunities to pursue “WTO” service liberalisation with trading partners. The possible objectives of RTA include:

- securing the binding of existing levels of market access;
- negotiating new market access in sectors of priority commercial interest;
- Most-favoured-nation commitments to access the benefits offered to future RTA partners; improved transparency through disciplines on domestic regulation in terms of (standards, licensing, recognition of qualifications);

Regional trade agreements, such as the free-trade agreements and the customs-union agreements have created significant gains both for governments and citizens. Khorana, Kimbugwe and Perdakis (2009) argued that besides consumers having access to a wider variety of goods produced from the other member countries, most producers would also gain from the common external tariffs.

The consumers from the regional bloc would have access to duty-free goods from the other countries in the trading bloc (Viner 2014). Free trade area creates both trade creation and trade diversion. Trade creation occurs when trade increases. However, trade diversion occurs when a free trade agreement shifts imports from a more efficient supplier to a less efficient supplier which in itself causes a reduction in national welfare. National welfare gains occur when trade creation outweighs trade diversion. Thus, a country would only enter a free trade agreement if the free trade agreement is welfare improving (Suranovic, 1997). This happens when trade creation outweighs trade diversion. The market with trade creation would generate national welfare gains while the market with trade diversion would generate national welfare losses. But it is also possible for trade diversion to outweigh trade creation. This is welfare reducing. The only way to prevent this is to ensure that all barriers to trade against all countries are removed. This would reduce trade diversion.

The impact of trade liberalisation on economic growth works mainly through improving efficiency and stimulating exports which have powerful effects on both supply and demand

within an economy. However, the relative importance of the precise mechanisms by which export growth affect economic growth are not always easy to discern. The effect of tariff liberalization could be greater when domestic product market and labor market regulations are less stringent. Recent theoretical work by Helpman and Itskhoki (2014) shows that in the wake of trade liberalization, labor market frictions can persistently depress productivity during the transition to the new steady state as they result in misallocation of labour.

Evidence also supports the notion that nations more open to trade tend to be richer than nations that are less open to trade. Economists believe that on the poverty front, there is strong evidence that trade openness is a more trustworthy friend of the poor than protectionism. Research has shown that protectionism reduces trade to below potential levels. Specifically, empirical studies show a country's own trade restrictions may create a significant bias against exportables (Ng and Yeasts, 2000). Ng and Yeasts (2000) identified controls as being a hindrance to imports. It therefore, follows that a country starved of imports is likely have retarded growth, since imports are an essential ingredient of economic growth – especially if the composition of imports is made up of capital goods and raw materials.

Trade liberalisation is seen as a solution to rampant inefficiency and misallocation of resources in developing countries. It is, therefore, expected that a country, which embraces trade liberalisation would witness faster economic growth, due to a reduction in the distortions in price relativities. Khan (2012) looked at the impact of trade liberalization on economic growth in Pakistan. His study confirmed the results of the earlier economists by supplementing it with some of the much-debated national and international aspects. His research predicts that trade liberalization can have a positive and beneficial effect on economic growth if it is supported by appropriate sequencing of prudent macroeconomic policies including good management, integrated and strengthened efforts made by domestic institutions, focused and targeted flow of foreign direct investment (FDI's) towards export-oriented industries and services, and improved market access.

Another recent literature was that of Manni and Afzal (2012), who observed that trade liberalization policies opens up the opportunity for countries' economies to enhance growth and foster overall development. Manni and Afzal (2012) study the effects of trade liberalization on economic growth of developing countries using a case of Bangladesh economy between 1980 and 2010. The results of their study suggested that, both real exports and imports would increase with greater openness, which in turn, would eventually lead to economic growth.

Rondinelli (2013) also showed that Philippines managed to improve the conditions of unemployment and reduced bankruptcy tendencies among the medium- and small-scale businesses after trade liberalisation.

Duncan and Quang (2003) noted that poor countries usually have high ratios of labour-to-land and labour-to-capital. As a result, poor countries produce labour-intensive activities; while first-world countries tend to produce capital-intensive products. Duncan and Quang (2003) observed that the removal of trade barriers that favour capital-intensive industries' development trigger an increase in employment of the low-skilled labour. From this standpoint, trade liberalisation would result in an increase in employment, irrespective of the factor intensity of a country. In this way, trade liberalisation is seen as a panacea to poverty in developing countries.

From this preceding discussion, it is therefore clear that the outcome of trade liberalisation on poverty is not always straightforward.

Although there is still controversy on the impact of trade liberalisation on poverty and welfare, research shows a number of paths that trade liberalisations could influence welfare. Import restrictions of any kind create an anti-export bias – by raising the price of importable goods relative to exportable goods (Tussie and Aggio, 2005). The removal of this bias through trade liberalisation would encourage a shift of resources from the production of import substitutes to the production of export-oriented goods (Tussie and Aggio, 2005). This, in turn, would generate growth in the short-to-medium term, as the country adjusts to a new allocation of resources more in keeping with its comparative advantage (McCulloch, Winters and Cirera, 2001).

On the other hand, recent studies on Non-tariff measures, show that Non-tariff measures that are poorly designed or captured by special interests can hurt competitiveness whereas well-designed ones can effectively overcome market failure (Baccheta and Berevelli, 2012).

Ongoing efforts to enhance data availability on non-tariff barrier measures will help complement existing studies of the impact of tariff liberalization (Staiger, 2015). Productivity gains for emerging and low-income countries such as Cote d'Ivoire could conceivably be even higher given their comparatively higher barrier to trade.

1.2.2 Challenges of Trade Liberalisation

The global economy has been growing at a moderate pace and this is expected to continue in the coming years. The rise of populism and deglobalisation is threatening decades of prosperity that was achieved through trade. The world economic outlook (2017) noted that the Brexit vote and the Recent United States election are both contributing to uncertainty about the future. They reveal that protectionist policy on trade could harm the American economy and have a negative spillover effect on the global economy as a whole. Thus, there is a real danger that free trade will be damaged in the coming years.

Bastiaens and Rudra (2016) found that developing countries are now facing low commodities prices and severe fiscal challenges. Their research reveal that further efforts made by government to reduce trade taxes to support trade liberalization will be problematic because trade taxes are a key source of government revenues. As a result, authoritarian regimes in developing countries will be more effective in implementing domestic tax reforms as a substitute for trade taxes. Democratically elected leaders will undermine domestic tax reforms because they are more susceptible to middle and upper-class demands for lower taxes in a competitive economy.

In addition, measures that relate to custom procedures need to be addressed to facilitate trade. In SADC region for example, initiatives have been introduced to improve the flow of trade (Shumba, 2015). Along these initiatives, there has also been measures to promote capacity building and integrity. In addition, there has been agreements in the SADC region to harmonize

the hours of operation at certain border post (Shumba, 2015). All these initiatives contribute to the challenges trade liberalization is currently facing.

A research by Rondinelli (2013) examined a case in the Philippines. It blamed the loss of tariff revenues in the Philippines on increased levels of foreign borrowing, deficit-budget problems, inadequate funds for crucial sectors, such as health, education and social services. The problems experienced by these sectors could easily have been addressed if the economy were to be liberalised, thus attracting foreign direct investments to invest in key sectors reducing financial strain of government in respect of limited resources such as taxes.

According to the IMF (2013), about two thirds of the gains of trade liberalisation were realised by the developed economies. Developing economies, such as China, and India have of late gained much from trade liberalisation. However, the low-income earners have lost much of their gains because of their structural rigidities.

Trade-diversion effects in trade liberalisation constitute a factor derived from the customs union, in which those that gain are the producers from the region (Baldwin, 2014). This means that in the case of implementing trade liberalisation, the most efficient producers outside the trade bloc are locked out to make room for a less-efficient producer from the regional trade agreement to grow and enjoy the largest trade gains. However, it should be noted that in such an arrangement, the consumer becomes the ultimate loser; since the consumer-welfare gains are denied.

Another problem of trade reforms stems from the fact that differently structured groups are affected by the gains and losses of the reform. The general public is the winner therefore individual gains are small. Because the losers are a small group, which often is the political and economic elite, the individual disutility is large.

Samuelson (2004) questions the economic credo of free trade. He constructed a special case of trade between China and the US. He argues that under normal circumstances free trade will lead

to higher income than in autarky. However, he finds that technical improvement in china raises productivity there while productivity in the United States (US) remained constant. Thus, the US suffers welfare losses while China gains.

This is supported by a recent study of the United States International trade commission (2017) which shows that the trans-pacific partnership agreement will lead to an increase in imports of the United States textile and apparel, especially imports coming from Vietnam.

Another critics of trade liberalisation, such as Lee (2005), have blamed it for a host of ills, such as rising unemployment and wage inequality. Increased foreign competition can lead to plant closings and job losses concentrated in certain regions and industries. It may contribute to increased anxiety and wage pressures, as well as rising income inequality (Lee, 2005). The level of employment is a key determinant of overall economic welfare, especially in developing countries, where the systems of social protection are weak. In particular, the impact of trade liberalisation on the level and structure of employment determines, to a large extent, its impact on poverty, wage and income distribution, and the quality of employment. These latter variables are clearly among the central points of contention in the debate over trade liberalisation (ILO, 2001).

Trade reforms in recent years have resulted in negative changes in output in different sectors and associated impacts on employment, which are an important aspect of the political economy (Brenton et al., 2009). In addition, Brenton et al. (2009) note that trade reform entails changes in prices; and an important consideration is how these would affect households, especially the poorest. This issue is still uncertain.

The implementation of the RTAs has in some cases been observed to contribute to welfare loss, especially in cases where trade diversion exists. Consumers are forced to buy commodities and inefficiently produced goods, which come at a premium due to a RTA. Potential losses of trade diversion are predicted by Viner's (1950) seminal work on the formation of a customs union. Studies have revealed that custom unions generate potential losses in revenue and welfare (see for example Sangeeta et al., 2009).

Besides the trade effects, regional trade agreements, such as the FTA and customs union are likely to negatively impact different actors within the economy (consumers, producers and governments) (Khorana, Kimbugwe and Perdikis, 2009). For example, consumers are likely to gain access to cheap and poor quality goods produced within the regional bloc. Producers are likely to face stiff competition from other countries in the region and beyond (Khorana, Kimbugwe and Perdikis, 2009).

Trade liberalisation is not a panacea. It needs to be accompanied by complementary policies if the intended benefits are to be realised. Policies, which support education, infrastructure, financial and macroeconomic policies, are lacking. As a result, the African continent has failed to yield strong growth results. The precise mix of trade and other policies that are needed would largely depend on the specific circumstances of each country (McCulloch, Winters and Cirera, 2001).

Another problem of trade liberalization is the weak tax instrument. Brenton et al. (2009) and Waglé (2011) criticise weak tax administrations, as well as large informal sectors (with unrecorded or illicit transactions), coupled with the high cost of administration, results in a narrow tax base. Because of the difficulties encountered in collecting domestic tax revenue, developing countries usually face serious revenue challenges after introducing trade liberalisation (Waglé, 2011).

However, Waglé (2011) argues that there is a possibility that trade liberalisation pays for itself over time. Conventional wisdom reported in tax policy advice to developing countries over the past 30 years has been that domestic consumption or income taxes are superior to import duties because the former can meet the government's revenue target with lower rates, a wider base, and without a protectionist bias (Waglé, 2011). However, this can only work in countries with strong and sophisticated domestic tax-collection instruments.

The belief that trade liberalisation lead to gains is premised on the assumption that there is perfect competition, and that there are always constant returns to scale in production. This is

clearly at odds with the real world, as most developing countries suffer from market failures, such as positive production externalities in import-competing sectors (ILO, 2001).

Ocampo et al. (2007) underscored that the argument that trade liberalisation enhances increasing returns is ambiguous. Rather, trade liberalisation is often deplored, on the grounds that it sometimes leads to deindustrialisation. Hence, protectionism, aimed at promoting industrialisation, is justified on these grounds. Empirical evidence has shown that industrialisation is an a priori requirement for export success (ILO, 2001).

Government in developing countries rely heavily on imports taxes as their main source of revenue. Hence in the presence of a trade liberalisation, these countries will be forced to seek alternative funding to meet the budget deficit. Makochekanwa (2012) revealed that African countries, such as Lesotho, Swaziland, Tanzania, Uganda and Zimbabwe that derive revenue from taxes and tariffs as a key source of national income have had problems with trade liberalisation.

The configuration of RTAs is diverse and becoming more complex with overlapping RTAs and networks of RTAs spanning within and across continents at the regional and subregional levels. The reasons influencing the choice of FTAs over customs unions, appears to play a vital role also in the choice of RTA configuration. Countries are opting for simple RTA configurations, such as two parties, rather than the more burdensome plurilateral RTAs, which are more typical of customs unions. Crawford and Fiorentino (2005) found that Bilateral agreements account for over 75 per cent of all RTAs notified.

Like those of most developing countries, Cote d'Ivoire's government is tied to custom receipts, which accounted for more than 40% of its total fiscal receipts during the period 1960-1998 (Bedia, 2006). Although trade liberalization and regional integration offer economic growth opportunities in the long run, in the short run they will result in a reduction in the revenue of the country and worsen an already high budgetary deficit. Furthermore, for Cote d'Ivoire and other WAEMU member countries engaged in this process, the union offers indisputable

advantages but insists that these countries adopt a common external tariff (CET) and modify intra-zone custom duties through maximum limit tax rates. For Cote d'Ivoire, the tariff union is realized in the new context known as "Open Regionalism".

In the beginning of the 1990s, the international institutions and partners in development suggested the privatization of several public enterprises and a freeze on the public wage bill. In addition, they suggested the liberalization of the agricultural sector, mainly cocoa and coffee, which represented the heart of the country's finances. Despite the implementation of the IMF policies, Cote d'Ivoire suffers from a huge debt burden with an external debt that grew from \$7.4 billion to \$17.7 billion from 1980-1990. Total debt rose from 73.3% in 1980 to 164.3% in 1990 (Kingston, Godspower, and Dienye, 2011).

Cote d'Ivoire became one of the most indebted countries in the world qualifying the country under the IMF Heavily Indebted Poor Countries (HIPC) programme in 2001 (Kingston et al, 2011). The impact of trade liberalization is complex so therefore, one must carefully examine the income distribution of a trade reform to determine who the losers and the winners are before such policies are implemented.

Nicita, Olarreaga, and Porto (2011) looks at pro-poor trade policy in Sub-Saharan Africa. Their results suggest that Sub-Saharan Africa own trade policy is biased in favour of poor households. Whereas, the trade policies of the trading partners tend to be biased in favour of Sub-Saharan's rich households. The findings suggest that Africa's own trade policy appears to redistribute income from rich to poor households. This is mostly explained by agricultural protection, which is significantly high both in developing and developed countries. Hence, in this setting, liberalization could be bad for poverty.

Although African countries over the last 25 years have removed most of the trade barriers considered to be the main impediments to export performance, their export growth has been sluggish after trade liberalisation, the level and composition of the continent's exports have not substantially changed (UNCTAD, 2008). The performance of the export sector, after trade liberalisation, fell short of expectations; and the improvement has been small relative to the

experience of other developing regions. African countries have not been able to diversify their exports towards manufacturing goods and high-tech products, which are both price- and income-elastic and do not suffer from the international markets shocks.

The World Bank (2015) estimated that Inter-African trade is low and has the highest of intra-regional cost in any developing region. Their study revealed that intra-African trade costs around 50 per cent higher than in East Asia.

In recent years, developing countries' exports grew at a faster rate than those of developed countries. Developing countries' merchandise exports grew at an annual rate of 8.2 per cent for the period 1980-2010, compared with 6.6 per cent for developed countries (Michalopoulos and Ng, 2013). Michalopoulos and Ng (2013) noted that for the thirty years, that is, 1980-2010, only the developing countries in Sub-Saharan Africa and the group of developing countries in Europe, Middle and North Africa – whose exports are dominated by oil, experienced trade growth slower than that of developed countries.

Ancharaz et al. (2011) have argued that weak institutions, policy inconsistency, weak supply response, lack of trade-facilitation instruments, including trade finance, and complex customs arrangements further impede intra-regional; and international trade is the most important barrier to the continent's export performance.

In addition, many African countries, including Cote d'Ivoire, suffer from, low rates of domestic savings, lack of institutional transparency, political instability and conflicts (Fell, 2007). Even if trade liberalisation is taken as the supreme rule to economic development, these negative fundamentals make it difficult for Africa to benefit from trade liberalisation.

One of the major concerns about Africa is that there is a lack of data to back up negotiations, as observed by Brenton et al. (2009). To reach effective agreement through negotiation would require accurate information to conduct the necessary background research that takes into consideration different assumptions when comparing third-party tariffs, preferential tariffs and rules of origin for the region. Since adequate information may not be available on measures of

support, it is doubtful whether negotiations could proceed on a sound basis. Even if some information were available, there are not many African countries that have the expertise to conduct a comprehensive analysis of the existing information, without the benefit of expert technical assistance.

The protection of agricultural markets is still a topic that seems to divide developing countries and member countries of the Organization for Economic Cooperation and Development (OECD). Renegotiations of the Uruguay Round Agreement on Agriculture under the Doha Development Agenda (DDA) were to bring parties together, but little consensus has been made so far. For Africa, so much affected by distortions in agricultural markets, this is a major disappointment. African countries have increased their calls for fair trade practices in response to the limited progress that has been made in the Doha round of multilateral trade negotiations and are beginning to show more interest in multilateral trade negotiations.

The potential gains from eliminating remaining trade barriers over the years have been unfairly distributed (Ann et al, 2016). The potential productivity gains from full elimination of remaining tariffs suggests that aggregate productivity could rise, on average, by around 1 percent across advanced economies. Trade liberalization can boost productivity by improving the quality and variety of intermediate inputs available to domestic producers. Recent firm-level evidence for a number of countries confirms the quantitative importance of this input channel (see Topalova and Khandelwal, 2011; Amiti and Konings, 2013; Halpern et al., 2015).

With regards to ECOWAS, coordination problems between members have made it difficult to operationalise trade facilitation agreements and measures although exports increased by nearly 260% between 2000 and 2014. Exports from the region are increasingly destined for China and India in Asia and Spain, France and the Netherlands in Europe. Also, the share of intra-ECOWAS exports in the region's total exports has increased only marginally since 2000 from 7.7% to 8.3% in 2014 (Tuffour et al, 2016).

Moreover, progress has been less rapid for many other countries, particularly in Africa and the Middle East. In contrast to the successful integrators, most developing countries depend disproportionately on production and exports of traditional commodities, especially primary commodities (Tuffour et al, 2016). The reasons for their marginalisation are complex, including deep-seated structural problems, weak policy frameworks and institutions, and protection at home and abroad.

1.2.3 Cote d'Ivoire's Past Experience on Trade Liberalisation.

The trade regime in Cote d'Ivoire became restrictive in the 1970s and in the second half of the 1970s and in the early 1980s arbitrary prices and quantitative restrictions were introduced on a wide range of imports competing with domestic manufacturers (Aka, 2006). His research found that textiles and foods related manufacturing received the highest effective protection, followed by chemicals. Similarly, quotas were also high in food processing, beverages followed by textiles and chemicals (Aka, 2006).

During the boom years in the second half of the 1970s, Cote d'Ivoire benefitted from the rise in world coffee and cocoa prices (Harrison, 1990). This resulted in an increase in revenue, most of which were absorbed by the government, were used to increase investment and expand public spending and infrastructure.

By the end of 1979 the growth process slowed due to the fall in the international prices of agricultural products and exacerbated by both the 1973 and 1978 oil crises coupled with the deterioration of terms of trade (Harrison, 1990).

The severe macroeconomic imbalances that followed the decline in commodities prices forced the government to adopt an austerity program in 1982 (Kingston, 2011). According to Kingston (2011) the adjustment program was followed by a major trade reform introduced in mid-1984 which was effectively implemented in 1985 and extended in 1986 and early 1987. When trade reforms were introduced in 1985, the economy experienced a period of growth, but 1987 was a recessionary period (Harrison, 1990).

The reform removed quantitative restrictions and reference prices, rationalized the tariff structure, and introduced temporary tariff surcharges. The objective behind the tariff reform was to equalize effective protection across different sectors by lowering tariffs on final goods and raising tariffs on inputs and intermediate goods. The surcharges declined over a five-year period to allow firms previously protected by non-tariff measures to adjust.

The tariffs changes and the removal of quotas were implemented in two phases. During the first phase (1985), reforms were imposed on key sectors including textiles and food processing. In the second phase (early 1987), the reform was extended to the rest of the manufacturing sector (fertilizers, machinery).

Harrison (1990) used a panel of 287 firms in the Cote d'Ivoire to test for imperfect competition before and after the 1985 trade reform. She found that that protected sectors such as textiles have significant mark-ups of price over marginal cost. There is also evidence that price-cost margins fell between 1985 and 1987. However, the fall in mark-ups for exporting sectors is likely to be linked more to the real appreciation of the currency than to increases in domestic competition.

Aka (2006) in his work we have tried to quantify the poverty, inequality and welfare impacts of trade liberalization and tax reform in Cote d'Ivoire. The main findings are as follows. About 30.90% of households were affected by absolute poverty. But as far as the socioeconomic groups are concerned, the poverty situation is diversified among household groups. The most affected by poverty are public employees, followed by coffee and cocoa farmers and private employees. Furthermore, coffee and cocoa farmers, private employees, and the self-employed are those contributing the most in global poverty. The liberalization reforms on the coffee-cocoa sector were introduced in 2002. Some estimates suggest that the coffee-cocoa sector was less profitable in 2005 than in the previous years (OECD, 2005).

1.3 Statement of the Problem

Trade liberalisation presents a serious challenge for Cote d'Ivoire, as the country is still coming from a period of civil war, dividing communities and damaging the already fragile public institutions. Even though most of the fighting were over by late 2004, the violence left behind a legacy of contentious issues that have not yet to be sufficiently resolved. Trade liberalisation needs to be followed by domestic reforms.

Capital outflows continued to be one of the most damaging consequences of bad governance on the continent. Much of the money that leaves Africa is held in foreign accounts that have been embezzled by corrupt government leaders. For example the late president of Cote d'Ivoire, was reputed to have amassed a personal fortune of US\$ 12 billion (Tupy, 2005). Bad governance constitutes a hindrance to implement efficient reforms.

To make matter worse Cote d'Ivoire relies heavily on its tariff lines. Imports into Côte d'Ivoire for instance are subject to a number of levies. In addition to the uniform customs duty of 5 per cent there is a fiscal duty, which varies between 5 and 30 per cent, and a statistical tax of 2.5 per cent (MOC, 2014).

Moreover, some special taxes apply to particular products, mainly alcohol, tobacco, fuel, as well as some meats, fish and dairy products. A limited number of tariff lines enjoy free entry (medicines, books and periodicals, as well as certain agricultural and textiles inputs). Côte d'Ivoire does not apply any seasonal tariffs or variable levies (MOC, 2014).

Notwithstanding the adverse effects of trade liberalization, Cote d'Ivoire has continued to liberalize its trade and embark on different economic partnership agreements under regional groupings, and at a multilateral level. Within the regional grouping, the country signed free trade agreements with the EU. In ECOWAS, only Cote d'Ivoire and Ghana have agreed to the economic partnership agreement. Cote d'Ivoire has signed but not ratified the agreement yet. Under ECOWAS, Cote d'Ivoire has a custom union with the other member countries such as Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea Bissau, Liberia, Mali, Niger, Nigeria

Senegal, Sierra Leone, Togo. All these agreements have serious implications for the Ivorian economy.

The continued efforts to liberalise trade by Cote d'Ivoire were taken against the background of renewed protectionism by powerful economies after the 2008/09 world economic recession, as noted by the IMF (2013);

In view of the above discussions, the research questions emerging from the discussion are: Has trade liberalisation led to trade creation for Cote d'Ivoire? Has trade liberalisation led to welfare gains? Has trade liberalisation led to loss of revenue in Cote d'Ivoire? Has trade liberalisation led to an increase in imports? Has trade liberalisation led to an increase in exports?

Who is Cote d'Ivoire's major trading partner? The objectives that address these questions are presented below.

1.4 Objectives of the Study

The purpose of this study is to estimate and discuss the expected impact on the different trade-policy regimes in Cote d'Ivoire. Specifically, this study intends to;

- (a) Evaluate the impact of the ECOWAS custom union on imports, exports, revenue, trade creation and diversion and welfare implications in Cote d'Ivoire;
- (b) Evaluate the impact of ECOWAS FTA on imports, exports, revenue, trade creation and diversion and welfare implications in Cote d'Ivoire;
- (c) Evaluate the impact of WAEMU custom union on imports, exports, revenue, trade creation and diversion and welfare implications in Cote d'Ivoire;
- (d) Evaluate the impact of WTO FTA on imports, exports, revenue, trade creation and diversion and welfare implications in Cote d'Ivoire;
- (e) Evaluate the impact of bilateral agreements on imports, exports, revenue, trade creation and diversion and welfare implications in Cote d'Ivoire;

- (f) To come up with a trading block that is more beneficial to Cote d'Ivoire amongst WTO, EPAs, and ECOWAS.
- (g) Analyse the implication of the study's findings on trade policy in Cote d'Ivoire.

1.5 Hypotheses

The following hypotheses will be tested:

H1₀: The Null Hypothesis: Trade liberalisation leads to trade creation and welfare gains.

H1₁: Alternative Hypothesis: Trade liberalisation does not lead to trade creation and welfare gains.

H2₀: Null Hypothesis: Trade liberalisation leads to the loss of government revenue.

H2₁: Alternative Hypothesis: Trade liberalisation leads to gains in government revenue.

H3₀: Null Hypothesis: Trade liberalisation leads to an increase in imports and exports.

H3₁: Alternative Hypothesis: Trade liberalisation does not lead to an increase in imports and exports.

H4₀: Null Hypothesis: ECOWAS is the most important trading partner for Cote d'Ivoire.

H4₁: Null Hypothesis: ECOWAS is not the most important trading partner for Cote d'Ivoire.

1.6 Significance of the study

The aim of this study is to add to the body of knowledge and fill the gap in the literature on the impact of trade liberalisation on revenue, imports, exports, welfare, trade creation and trade diversion in Cote d'Ivoire. Nowhere in the world is the need for poverty reduction greater than in sub-Saharan Africa.

As in any other economy, trade plays an important role in the development process and can help to alleviate poverty. However, as it has been highlighted in the previous section, past researchers have taken conflicting positions on whether to liberalise African economies, or not.

Hozouri (2017) discussed the impact of trade liberalisation on economic growth. His research focused on 12 countries from the Middle East and North Africa region (MENA). His result shows that economic growth have significant and inverse relationship with tariff changes.

Mano–Bakalinov (2016) also looks at trade liberalisation and economic growth in Macedonia. His findings suggest that the relationship between trade reforms and growth through may vary across transition economies. Nevertheless, his results show that policies focusing on market liberalisation and opening the economy to trade have a positive effect on Macedonian economic growth, both in the short run and the long run.

However, the impact of trade liberalisation on an economy is not very clear. For example trade liberalisation increases both exports and imports, the difference between these two, the trade balance, may increase or decrease depending on tariff reductions (Ju, Wu and Zeng, 2009). According to Ju, Wu and Zeng (2009), the impact of trade liberalisation on the overall balance would be the more important question for policy makers. The impact of trade liberalisation on the trade balance, therefore, needs to be investigated empirically.

Ju, Wu and Zeng (2009) noted that previous researches, which attempted to find out how trade liberalisation affects a country's imports, found that it generally leads to a positive impact (Melo and Vogt, 1984; Bertola and Faini, 1991; and Santos-Paulino, 2002a). There are also empirical researches focusing on the effects of trade liberalisation on exports, where the findings are more mixed. Some of these show that those countries, which embarked on liberalisation programs had improved their export performance (Thomas, Nash, and Edwards, 1991; and Santos-Paulino, 2002b); whereas, others have found little evidence of such a relationship (Greenaway and Sapsford, 1994; Jenkins 1996).

The impact of trade reforms on imports, exports, welfare, revenue, trade creation and trade diversion needs to be investigated. Although there is a guideline from theory on the possible implications of trade liberalisation on the above-mentioned fundamentals, the results differ from one country to another. Hence, an empirical study is of paramount importance.

In addition, most countries have entered into trade agreements without knowing the implications of these agreements quantitatively. This has been primarily due to the fact that developing countries do not have the necessary expertise and data when negotiating. Cote d'Ivoire unfortunately did implement a trade liberalisation in 1985 which led to the increase in poverty to a country already in bad shape.

This study, therefore, comes at an opportune time, as it will review the impact of the various trade agreements on Cote d'Ivoire and be used as an instrument to influence future negotiations.

The discussion in this report is timely for several reasons:

Firstly, it takes place at a right time when many African countries are looking for ways to take advantage of the opportunities globalisation brings. Countries could derive substantial benefits from the trade agreement. If prudently used, this opportunity could allow these countries to build a strong and diversified productive sector that is more responsive to export opportunities (UNCTAD, 2008). This study intends to explore whether Cote d'Ivoire will benefit from the commodity boom – after creating market access through liberalisation especially with the EU.

Secondly, Cote d'Ivoire's economy is mostly based on agricultural product. The country produced around 33% of the world supply of cocoa annually (World Cocoa Foundation, 2014). The death of President Houphouet-Boigny in 1993 the sole ruler of the country and the decline in the world cocoa prices during the 1980s have all played an important role in undermining the stability of the Ivorian economy.

Despite these ambiguous factors, globalisation has played an important role in the deterioration of the Ivorian society and economy, degrading the lives of the millions of Ivorian citizens

dependent on cocoa for their livelihoods. Given that Africa was consistently a net food producer until 25 years ago, this is an opportune time to reflect on what has happened to Cote d'Ivoire's agricultural production and, on how to reconstruct its agricultural export sector.

Thirdly, Cote d'Ivoire has been implementing trade-liberalisation measures for a long period now, so it is perhaps time to take stock and reflect on the trade performance after liberalisation, in order to propose remedial actions where these are needed.

The agricultural sector alone represents 27% of Cote d'Ivoire's gross domestic product and employs 60% of the country labour force (IMF, 2016). The coffee and cocoa sector create 50% of Cote d'Ivoire total exports revenue and employs 700,000 farmers. Therefore, there is clear evidence that Cote d'Ivoire's trade liberalization need to be supported by complementary policies aimed at enhancing the production of goods. Though the cocoa industry remains the most important contributor in the Ivorian society, Ivorians do not consume cocoa rather Western Europe consumes the largest proportion with 33% compared to 24% in the United States alone (Fell, 2007).

This implies that Cote d'Ivoire is highly dependent on the changes of Western Europe's demand for cocoa. The continued foreign demand for cocoa continues to prevent the Ivory Coast from diversifying its economy, aggravating the fragility of their society by reinforcing their dependency on a volatile agricultural commodity. Trade liberalization is a policy suggested by the developed countries to the developing ones as a solution to end poverty. Under normal circumstances, developing countries fail to compete with the powerful economies, because of uneven playing fields. In the light of this, it seems plausible and intuitive to examine the impact of trade liberalisation on Cote d'Ivoire.

The relevance of this study hinges on the fact that there is no substantial research that has been carried out to untangle the effects of trade liberalisation in Cote d'Ivoire. Despite the abundant literature on the trade liberalisation in Africa and the world, very few researches were undertaken in Cote d'Ivoire. This study on the impact of different trade policy regimes Cote d'Ivoire,

therefore, adds to the body of knowledge and closes this gap. To the best of the researcher's knowledge, previous studies in this area by a number of researchers are both outdated and not comprehensive.

Rather, these have concentrated on the effect of trade liberalisation on particular sector, like justice. For example, Fell (2007) studied the impact of trade liberalisation on environmental justice in the Ivorian society. She concluded that the irresponsibility that the chocolate industry has demonstrated in suppressing the truth behind chocolate production mirrors the negligence with which the West has implemented neoliberal economic policies in the Ivory Coast, as the liberalization of the Ivorian cocoa market has left a legacy of poverty, environmental degradation, and civil war.

Aka, Bedia (2006) studied the effects of poverty, inequality and welfare effects of trade liberalization in Cote d'Ivoire using a computable general equilibrium model analysis.

Kingston (2011) concentrated on the impact of structural adjustment programme that was implemented in Cote d'Ivoire in the 1990s. As a result, this does not capture a detailed analysis of the impact of Cote d'Ivoire's different trade-policy regimes.

Yaoxing and N'guessan (2010) reviewed the relationship between foreign direct investment, trade openness and growth in Cote d'Ivoire.

The distinguishing characteristics of this study are its objective of coming up with a broader understanding of the impact of trade liberalisation on trade creation, trade diversion, revenue and welfare effects in Cote d'Ivoire.

To the best of the researcher's knowledge, no studies have been undertaken on estimating the impact of trade liberalisation on Cote d'Ivoire. Against this background, the thesis contributes to the current issues in trade liberalisation, and its effect on Cote d'Ivoire. The importance of this study is to close a knowledge gap within the current existing literature. An important feature of

this thesis is the empirical link that it establishes between Cote d'Ivoire trade policies, exports, imports, trade creation and trade diversion, welfare and revenue implications.

The methodology employed by other studies was either the WITS/SMART model, the TRIST model, or the CGE models. For example, Zafar (2005); Karingi et al. (2005); Karingi et al. (2006); Lang (2006); Othieno and Shinyekwa (2011); Francois and Pindyuk (2013); Makochekanwa (2012); Bilal, Dalleau and Lui (2012); Onogwu and Arene (2013); McIntyre (2005); Hallaert (2007); These all used the WITS/SMART model to estimate the effects of a particular trade agreement of specific indicators, such as revenue and welfare. Other studies made use of only the TRIST model, for example Hamilton (2009); Brenton (2004) and Wangle (2011).

Researchers who used the CGE models include Boyer and Schuschny (2008), Laery (2010), McDonald and Walmsley (2011), Karingi et al. (2005), Tekere and Ndlela (2003), Keck and Piermartini (2005).

This thesis, instead, has made use of both the WITS/SMART, since the intention of this study is centred on static gains rather than dynamic gains, which require CGE models. The model allowed this research to put into perspectives the impact of the trade reforms that Cote d'Ivoire has implemented on a wide range of indicators, such as exports, imports, trade creation and trade diversion, welfare and revenue implications. The WITS/SMART model was used to evaluate the impact of trade policies on Cote d'Ivoire with respect to impact on exports, imports, trade creation and trade diversion, welfare and revenue implications.

The findings of this study should also be of benefit to a number of stakeholders. These stakeholders are: investors, civil society, developmental partners, manufacturers, the banks and regulators: The Ministry of Commerce, the ECOWAS Commission, and other Government Ministries, as well as the Central Bank of Western African States.

It is in the light of these past developments and the increased negotiations of trade that it is imperative and intuitively important, at this juncture, to carry out a detailed study. The study

shows the effects of previous trade liberalisation and planned trade protocols. Therefore, the study provides the suggestions to Cote d'Ivoire's negotiators and the relevant stakeholders on the implications of such commitments. The light this study sheds on various stakeholders in Cote d'Ivoire, coupled with academic interests necessitated this research. Finally, the results of this study are likely to have implications for other developing countries – especially those that are in Sub Saharan Africa.

1.7 Layout of the Study

The thesis is organised as follows: Chapter 2 reviews Cote d'Ivoire different trade policy regimes in the context of the macroeconomic framework. It also, discusses the implications of trade reforms, taking into account the revenue implications for Cote d'Ivoire. Chapter 3 analyses Cote d'Ivoire's trade performance within the regional blocs, bilateral and multilateral levels. Chapter 4 provides theoretical and empirical literature on the impact of trade liberalisation on trade, welfare and revenue, which comprise the objectives of the study.

Chapter 5 outlines the methodology to be used in this research. In this chapter, the WITS/SMART is discussed. Chapter 6 presents the empirical results on the impact of the ECOWAS customs union and the ECOWAS FTA on Cote d'Ivoire, as well as their economic interpretation. Chapter 7 discusses the empirical results of the EU FTA on Cote d'Ivoire and their economic interpretation. Chapter 8 presents the empirical results of EPAs on Cote d'Ivoire and their economic interpretation.

Chapter 9 presents the empirical results on the WTO FTA on Cote d'Ivoire and their economic interpretation. Chapter 10 presents the empirical results on the bilateral agreements on Cote d'Ivoire and their economic interpretation.

The last chapter, Chapter 11, sums up the study by linking the different parts of the research and providing an interpretation of the results, as well as the implications of these findings for the policy-makers.

1.8 Summary

The chapter has introduced the subject matter of trade liberalisation. Trade liberalisation lies at the heart of the “Washington Consensus”. Over the years, trade liberalisation has been sold to developing countries, as a set of divine rules to end poverty and stimulate economic growth. Evidence has revealed from this chapter that the distributive effects of trade liberalisation are diverse and not always pro-poor. Trade liberalisation presents opportunities, costs and benefits, as well as certain disadvantages.

The study has reviewed the benefits of trade liberalisation. Trade liberalisation brings individuals in developing countries into contact with new technologies, products and skills. The acquired technology and skills should promote an outward shift of the production possibility frontier. International trade also offers market access. Countries can circumvent the natural limitations of their own small domestic markets – particularly through regional integration. As result, production for exports can increase employment opportunities directly.

Trade liberalisation can also result in increased foreign competition; but it can also weaken the monopoly position of domestic enterprises and result in lower prices and better services for consumers.

The section has also reviewed the challenges, which come with trade liberalisation. Trade liberalisation is expected to create adjustment costs, encompassing a wide variety of potentially disadvantageous short-term outcomes. Cote d’Ivoire, in particular, implemented trade liberalization in 1985 followed by a structural adjustment program in the 1990s which were the reduction in the government’s expenditures and the devaluation of the currency. Cote d’Ivoire was a relatively stable nation until it began the engagement with the World Bank and IMF in 1989.

Cote d’Ivoire’s economy has not responded favourably to quick trade liberalisation. The immediate experience of the liberalisation of the cocoa and coffee sector resulted in an increase in agricultural poverty, high economic instability, widespread child labour practices. The

consequences of the structural adjustment program were the reduction in the quality of education, the decline in the quality of the national health system, a decrease in the purchasing power of the poor and a decrease in the standard of living.

The expansion of exports in Cote d'Ivoire was too slow to compensate for the loss of domestic market shares in the short run. The rigid structural policies prescribed by the World Bank and the IMF left Cote d'Ivoire but with no choice than to perform the set of reform policies in exchange for aids. These ill-advised policies produced devastating effects on the poor.

Cote d'Ivoire was never deterred by these preliminaries of trade liberalisation. The country went on to make more commitments in ECOWAS, ACP – EU, and Cote d'Ivoire just ratified a Trade Facilitation Agreement which will help ensure that developing countries receive the assistance needed to reap the full benefit of a trade agreement. As discussed above small economies, like Cote d'Ivoire, have no option but to liberalise, or at risk of being marginalised by the global economy. It is against this background that this study estimates the impact of trade liberalisation on the Ivorian economy. The study comes at an opportune time, as the country has been through a decade of economic decay.

The economic meltdown has inevitably weakened the country's capacity to respond to trade liberalisation. In this regard, this study explores the possible effects of trade liberalisation on revenue, consumer welfare, imports, exports, trade creation and trade diversion.

The relevance of this study hinges on the fact that there is no comprehensive study that has been carried out in Cote d'Ivoire. Previous studies in this area, by a number of researchers, are both outdated and not comprehensive. The distinguishing characteristics of this study are its objective of coming up with a broader understanding of the impact of trade liberalisation on Cote d'Ivoire.

The next chapter will discuss Cote d'Ivoire's trade policy regimes. Of specific interest, trade policy instruments, bilateral, regional and multilateral integration will be reviewed in this section. The main purpose of this discussion is to explore in detail the trade policies, which Cote d'Ivoire has implemented over the years. The thrust of this thesis is to estimate the impact of

trade liberalisation on Cote d'Ivoire. It is, therefore, fundamental to examine the different trade policies that have been applied by Cote d'Ivoire.

CHAPTER TWO

MACROECONOMIC DYNAMICS AND TRADE-POLICY DEVELOPMENTS

2.1 Introduction

Chapter Two of this study examines the trade policy regimes applied by Cote d'Ivoire in response to the macroeconomic dynamics and the implications of trade reforms on revenue. An examination of Cote d'Ivoire's trade policies is critical, because it provides the the foundation for this study, since the main objective of this study is to estimate the impact of trade liberalisation on Cote d'Ivoire. Of specific interest, trade-policy instruments, bilateral, regional and multilateral integration are reviewed. The analysis forms the basis for the subsequent chapters – to review how these polices have affected Cote d'Ivoire.

The chapter is structured as follows: Section 2.2 discusses the structure of the economy. Section 2.3 examines macroeconomic dynamics. Section 2.4 covers the definition of trade policy. Section 2.5 examines trade policy features and trends in Cote d'Ivoire. It also covers the evolution of Cote d'Ivoire's trade policy from independence to date. Various trade legislations adopted by Cote d'Ivoire analysed here provide a backbone for the study, as they form the basis for the evaluation of the impact such measures have had on the economy.

Section 2.6 reviews Cote d'Ivoire's tariff structure, and goes on to analyse the country's compliance with international commitments. Section 2.7 discusses the importance of customs revenue to Cote d'Ivoire, which is one of the objectives of this study. Section 2.8 provides a summary of the major issues discussed in this chapter.

2.2 The Structure of the Economy

Due to its relative economic prosperity, observed until recently a steadily positive growth rates – Cote d'Ivoire was for a long period the main development hub of the subregion. The World

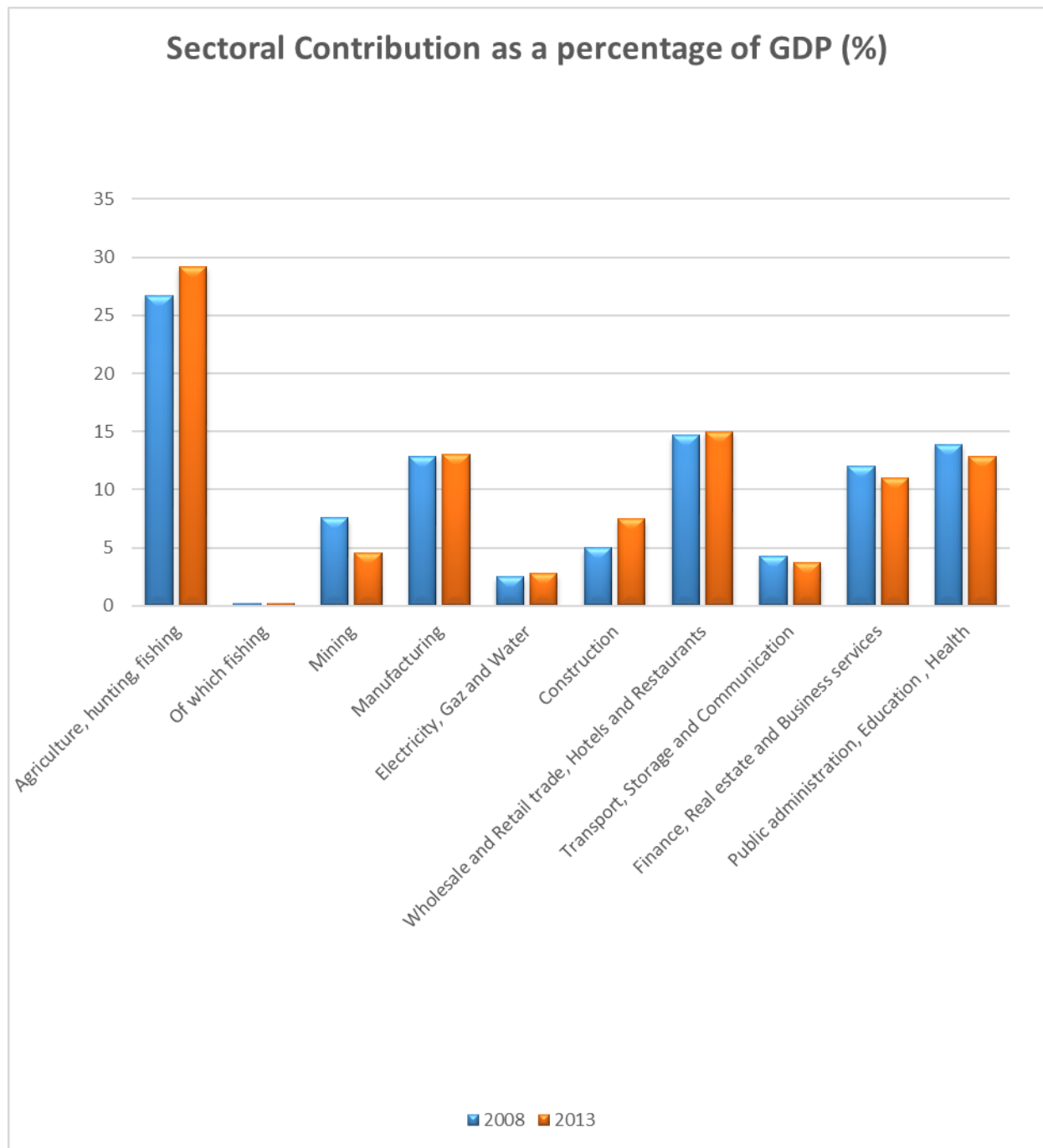
Cocoa Foundation (2014) noted that despite the crisis, Cote d'Ivoire has remained the world's leading cocoa producer.

The economy of Cote d'Ivoire is primarily dependant on its agriculture, particularly on cocoa and coffee and other exports crops such as rubber, palm oil, cotton, sugar cane, bananas, pineapple and foods crops such as plantain, yams and cassava (UN COMTRADE, 2016).

The recent development and prospects of Cote d'Ivoire is quite promising. Since the end of the 2011 postelection crises, the government was able to achieve an economic growth of 8.8% in 2013, the secondary sector advances with 13.3% and the tertiary 12.6% in 2013 (African Economic Outlook, 2014). The budget situation was much better in 2013 after decline in 2011 and 2012.

The country's revenue increased after a reorganisation of the tax administration. This positive view must not hide the big challenges as the country's GDP per capita is much lower than it was in 2000. The first priority is to make growth inclusive and durable to meet the pressing need of a young population looking for jobs. National competitiveness needs to be addressed, a much simpler taxation accompanied by a less rigid custom procedure are the challenges the government needs to address. Cote d'Ivoire's current tax are 62 compared to the African average of 36 (African Economic Outlook, 2014).

Figure 2. 1: Sectoral Contribution to GDP



Source: African Economic Outlook (2014)

Growth has been driven by the services sector (48% of GDP), thanks to strong performance in

telephony, transport and commerce due to the improved security situation and the increase in imports (AFDB, 2013). The secondary sector (22% of GDP), particularly the building and public works sub-sector, was consolidated as a result of the construction of socio-economic infrastructure. The primary sector however (30% of GDP) slowed in 2012 owing to the degradation of agricultural production infrastructure and poor performance in export agriculture and mineral extraction (AFDB, 2013). The vegetative rest period caused the slowdown in cocoa production and the decline in export agriculture, while the decrease in mineral extraction is due to a fall in oil and gas production due to natural depletion and the closure of some wells for works.

The Agricultural sector presents a huge scope for trade since it is the largest sector of the economy. Under normal circumstances, a country like Cote d'Ivoire, which is solely dependent on its agricultural sector needs to imperatively analyse the impact of a trade liberalisation. But, is trade liberalisation good for Cote d'Ivoire? The answer to this question is empirically derived in this study.

2.3 Macroeconomic Dynamics

The economy performed fairly well in the 1970s. The economic growth has been overallly positive at the dawn of the independence years (1960) to the end of the 1970s. This period corresponds the golden years of Cote d'Ivoire where growth was mainly driven by the rapid expansion of cocoa and coffee exports revenues. Within this period the growth rate of per capita GDP was around 1.54%, one of the highest in Sub-Saharan Africa (Jidoud, 2012).

Unfortunately, commodity prices have dramatically fallen in the starting of the 1980s leading to unsustainable macroeconomic imbalances (World Economic Outlook, 2013). This was fuelled by the high interest rates and the appreciation of the US dollar in terms of the CFA Francs. Export earnings have substantially fallen and debt burden skyrocketed leading to an adjustment process with the support of the world bank.

This results in huge government spending cuts that hampered growth. The economy went through a recession. A sluggish recovery started in mid 1990s following the franc devaluation. Economic activity has gained a fresh momentum since the end of the 2011 socio-political crisis. Although it only reflects a partial ‘‘catch-up’’ effect, growth reached 9% in 2012 (Jidoud, 2012). This demonstrates the resilience of the Ivorian economy in the wake of growth shock in 2011 that marked a 4.8% contraction of GDP.

2.4 Trade Policy Defined

Trade policy consists principally of tariffs and other border measures intended to tax and regulate the importation of goods (OECD, 2014). The purpose of trade policy is to help a nation’s international trade run more smoothly by setting clear standards and goals, which can be understood by potential trading partners (WTO, 2010). In many regions, groups of nations work together to create mutually beneficial trade policies.

Prior to trade liberalisation, countries used quantitative import restrictions, administrative barriers and other non-trade measures, as well as foreign-exchange controls to control trade in most product areas (Dean et al., 1994). In Africa, trade liberalisation has reduced the coverage of non-tariff measures considerably (UNCTAD, 2008).

Quantitative and detailed trade policy analysis and information are more necessary now than they have ever been. In the recent years, globalization and, more specifically, trade opening have increasingly become a heated debate. Questions have been raised about whether the gains from trade exceed the costs of trade. Concerns regarding the distributional effects of trade reforms have also been expressed.

According to UNCTAD, one of the main policies associated with trade liberalisation has been the conversion of non-tariff barriers (NTBs) into tariff equivalents, is a process known as ‘‘tariffication’’. UNCTAD insisted on the adoption of the policies that would lead to the

conversion of the various non-tariff barriers (NTBs) to equivalent tariff rates through a process called tariffication (WTO, 2014).

Africa is now one of the regions of the world where NTBs are least used (IMF, 2005). In the review of its Trade Restrictiveness Index, the IMF (2005) compares NTB data on 12 major trading countries and the European Union. The data show that Africa's major trading partners have had very high NTBs; while African countries have reduced their NTBs considerably.

This study used tariffs as trade-policy instruments to evaluate the impact of different trade policy regimes on Cote d'Ivoire. The use of tariffs as trade-policy instruments is sufficient to evaluate the impact of trade liberalisation on Cote d'Ivoire because Cote d'Ivoire established a common external tariff (CET) with other countries from WAEMU. The CET establishes four categories of products on which tariffs are zero, five, ten and 20 percent (OTEXA, 2012).

2.5 Trade Policy Features and Trends

After its independence, Cote d'Ivoire was at the peak of its relatively long period of growth during 1960-1979 and the country's GDP grew at an average annual rate of 5.7% (aka, 2006).

Some observers named this period of sustained growth the "Ivorian Miracle". The performance of the economy, based on growth in agricultural exports, led to an increase in the country's revenues then managed by the stabilization fund and support of agricultural products (CAISTAB), a public marketing board.

Kingston et al (2011) also said that by the end of 1979, the growth process slowed because the decline in international prices of agricultural products was aggravated by both the 1973 and 1978 oil crises. Since the early 1980s the macroeconomic situation has worsened, and the emergence of persistent budget deficits has constrained the government's investment in development programmes previously initiated-in several sectors.

To face the persistent decline in the international prices of agricultural products, the economic policy choice during the period 1970-1979 was the diversification and modernization of the agricultural sector (ICO, 2002). Unfortunately, the end of the decade was marked by economic crisis and more deterioration of the terms of trade which forced the government to engage in structural adjustment programmes (SAPs) that lasted throughout the 1980s and were financed by the World Bank (WB) and International Monetary Fund (IMF) in an attempt to restore a stable macroeconomic environment and foster growth (Kingston, et al, 2011).

However, these programmes did not to restore the health of the economy but rather worsened the economic situation of the country.

In the early 1990s, the international institutions and partners in development suggested the privatization of several public enterprises and a freeze on the public wage bill. In addition, they suggested the liberalization of the agricultural sector, mainly cocoa and coffee, which represented the backbone of the country's finances. In the meantime, the CFA franc was devalued by 50% in 1994, followed by the suppression of the CAISTAB in January 1999 (ICO, 2002).

2.5.1 Structural Adjustment Programme

Cote d'Ivoire implemented a structural adjustment programme (SAP) with the help of the World Bank and the IMF. The main focus of SAP was the privatisation of the cocoa industry between 1988 and 1995. Even though Cote d'Ivoire's exports increase from US\$3 billion to US\$5 billion from 1980 to 1995, the incidence of poverty doubled from 17.8% to 37% of the population (Kingston, 2011).

The strain on the economy meant that farmers were under increased pressure to produce more cocoa. The need to expand the production of cocoa output led to the illegal exploitation of children. The loan package (SAP) also required Cote d'Ivoire's government to reduce national spending in order to correct the government budget deficit. Reduction in government

expenditures affected the social well-being of the people, as user fees were introduced into the national health system, and education budgets were cut.

Hence, the results was a decline in the quality of education as highly skilled individual left the country to seek better employment overseas mainly to France and Canada. Despite the implementation of the IMF policies, Cote d'Ivoire suffers from a huge debt burden with an external debt that grew from \$7.4 billion to \$17.7 billion from 1980-1990 (Kingston, 2011).

Cote d'Ivoire's currency was devalued by 50% to lower the cost of exports (Harrison, 1990). This affected the poor as their savings and purchasing power declined. The IMF suggested the liberalization of the agricultural sector, mainly cocoa and coffee as well as the economic liberalization of the cocoa market in 1999 allowed for the arrival of several multinational companies and foreign investors in the cocoa sector. The goal of liberalisation was to increase the price farmers receive for their crops. However, evidence suggest that cocoa farmers did not experience benefits from these price increases (ICO, 2002).

2.5.2 National Trade Policy (NTP)

Côte d'Ivoire does not have any independent official body responsible for reviewing or advising the Government on trade policy (MOC, 2014). According to a WTO Secretariat report on Côte d'Ivoire's trade policies and practices, the objective of Côte d'Ivoire's liberalization is to revive the economy which has been in recession for seven years due to the decline the world prices of coffee and cocoa, which account for more than half of the country's export earnings.

Côte d'Ivoire has ratified the Uruguay Round Agreements and it has applied the General Agreement since 1947, firstly as a French Overseas Territory and then, since 1963, as a contracting party (WTO, 2015). In the Uruguay Round Agreements, Côte d'Ivoire restrained all duties applicable to agricultural products at a ceiling rate.

The European Union is Côte d'Ivoire's major trading partner, accounting for 52 per cent of its exports and 54 per cent of imports in 1992. Trade relations with France are very close and the

latter supplies 10.5 per cent of imports and takes 6.5 per cent of Ivorian exports whereas the Netherlands supplies 1.9 per cent of Ivorian imports and is an important outlet, purchasing 8 per cent of Ivorian exports, especially cocoa (UNCTAD, 2013).

Its major trading partners in Africa belong to the Economic Community of West African States (ECOWAS) and, first and foremost, to the West African Economic and Monetary Union (WAEMU). Among African countries, the major suppliers are Nigeria, with 18 per cent of imports, mainly oil and natural gas, followed by Cameroon and Senegal (UN COMTRADE, 2016). Although the number of import levies is quite high with at least four separate duties (customs duty, fiscal duty, stamp duty and a levy on imports carried by sea), their levels have been considerably reduced.

Zake (2011) has also shown that trade facilitation has involved a much broader agenda covering customs automation through the adoption and regular upgrading of ASYCUDA (Automated System for Customs Data), the use of post-control audits and risk management, and the adoption of international standards. Trade-facilitation efforts to reduce time barrier can be seen as trade-liberalisation measures. This is one policy measure Cote d'Ivoire has adopted.

2.5.2.1 Tariff-Based Instruments

The tariff-based instruments adopted by Cote d'Ivoire and discussed in this section are custom duty, fiscal duties, export tax and duty-drawback systems.

(i) Custom duty and fiscal duty

Cote d'Ivoire's imports into Côte d'Ivoire are subject to a number of levies. There is a uniform customs duty of 5 per cent, a fiscal duty, which is between 5 and 30 per cent and most imports are subject to a 0.6 per cent levy on imports carried by sea (Worldwide Tax Summaries, 2015). In addition, some special taxes apply to particular products, mainly alcohol, tobacco, fuel, as well as some meats, fish and dairy products.

(ii) Export Taxes

Export taxes can take different forms. They can be ad valorem taxes, specified as a percentage tax of the value of the product; or a specific tax, specified as a fixed amount to pay per unit of a product. It can be a progressive tax, i.e. characterised by a high tax rate when the price of the product is high; and a lower tax rate when the value of the product is lower. All types of export taxes have the effect of reducing the volume of exports; and they are, therefore, a form of export restriction (Piermartini, 2004).

Export taxes can be applied to the reference prices for coffee, cocoa, wood and cola nuts. One of the objectives of these taxes, reintroduced on coffee and cocoa in 1994 after a four-year interval, is to stimulate diversification towards exports with a higher value added and, in the case of wood, to discourage deforestation.

This is particularly so after the 2008-2009 economic crises. In 2009, export taxes and restrictions emerged as ninth top category among state measures discriminating against foreign commercial interests (Evenett, 2009). The trend continues upward, making export taxes and restriction the fifth top measure in 2012, after bail-outs, trade remedies, tariffs and non-tariff barriers (Evenett, 2012).

Export tax is known as *droit unique de sorties* (DUS) is a specific tax set in local currency (FCFA) per kilogram of cocoa bean that can be periodically revised. For example for 2009-2010 crop season exporters pay 210 FCFA (US\$ 0.57) as the DUS when cocoa cargo is loaded into the vessel at the port of Abidjan and of San-Pedro (Essoh, 2014).

Registration tax is known as *tax d'enregistrement* which is an ad valorem tax set at a percentage of the price CIF and can be also periodically revised. Exporters pay the registration tax first when they register and then fill legal formalities with the government as official cocoa exporter annually.

The statistical tax in Cote d'Ivoire is 2.5 per cent. To this value must be added the value added tax (VAT) whose modal rate is 20 per cent applied to the price of imports plus import duties (WWTS, 2015).

(iii) Import tariffs

A import duty, applied to all incoming goods regardless of origin, serves primarily as a source of revenue. Cote d'Ivoire applies a common external tariff (CET) together with other countries belonging to the West African Economic and Monetary Union (WAEMU). This economic and monetary union comprises Benin, Burkina Faso, Guinea Bissau, Mali, Niger, Senegal, and Togo. The CET establishes four categories of products on which tariffs are zero, five, 10, and 20 percent (Otexa, 2012).

A customs duty is levied on all goods coming from places other than franc zone countries. Products from franc zone countries, especially France, receive preferential customs treatment. An excise tax is levied on alcoholic beverages and tobacco; export duties and taxes are imposed on specified commodities.

Customs and other import tariffs are all levies collected on goods that are entering the country or services delivered by nonresidents to residents. They consists of imposed levies for revenue or protection purposes and are determined on a specific or ad valorem basis as long as they are limited to imported goods or services. According to the customs tariff Customs duties range from 0 per cent to 35 per cent, depending on the classification of the imported goods. The statistical tax in Cote d'Ivoire is 2.5 per cent. To this value must be added the value added tax (VAT) whose modal rate is 20 per cent applied to the price of imports plus import duties. Upon imports, goods are also subject to a statistical duty of 1 per cent, a community levy of 0.5 per cent and to a VAT of 18 per cent (WWTS, 2015) .

2.5.2.2 Non-Tariff Measures

Cote d'Ivoire adopted Non-tariff measures under the WTO guiding principles, which are discussed in this section below. This includes import and export licensing, standard and quality, trade defence mechanisms, anti-dumping and countervailing mechanisms, safeguard measures, and rules of origin.

(i) Import and Export Licencing

About 72% of exporters in Côte d'Ivoire perceive non-tariff measures (NTMs) as barriers to trade (ITC, 2014). Exporters in the country face more challenges in the regional market than in global markets. One of the major obstacle Cote d'Ivoire face is the delivery of certificates of origin to export in neighbouring countries. Malpractices and briberies constitute another challenges for exporters.

Licences are issued to importers regardless of whether they are producers of like products and licence applications are processed within a period of 2-3 weeks (WTO, 2013). Under the regulations, licence-holders are required to use a specific percentage of the licences allocated to them, and to surrender the unused remainder thereof, which is then reassigned to other eligible importers.

Most of Cote d'Ivoire's trade is governed by automatic import and export licence. However, imports and/or exports of certain goods may be subject to specific licensing administered by the Ministry of Commerce (MOC) and the Ministry of Agriculture and Rural Development (MARD). The government has maintained import licensing, in accordance with the WTO Standards and Quality.

(ii) Standards and Quality

The national standardization and certification (CODINORM) is the national body responsible for the following tasks: The promotion of quality management in companies. The management of a

technical documentation collection and of a bookstore for standards and quality-related works; the management of a national product certification and quality management system and also the management of the national WTO enquiry point on standards and regulations;

Standards are used as instruments of trade policy to authenticate the quality and specification of imports and exports in conformity with international safety requirements and regulations that aim largely at consumer protection (MOC, 2014).

(iii) Trade Defence Mechanisms

Every WTO's member state has the right to impose trade remedies, such as anti-dumping and countervailing duties, to correct the competitive imbalances created by unfair trade practices, when they cause or threaten to cause serious injury to local industry. Member countries are also allowed to apply safeguard measures in case of the surge of imports that cause, or threaten to cause, serious injury to local industry (WTO, 2010). In this regard, Cote d'Ivoire's government is actively monitoring such unfair trade practices.

(iv) Anti-dumping and Countervailing Measures

Anti-dumping measures are typically tariffs in addition to customary duties that are imposed to counteract certain unfair pricing practices by foreign companies that threatens to injure domestic consumers (Skyles, 2005).

According to the WTO (2013), dumping occurs if a company exports a product at a price lower than the price it normally charges on its own home market. Dumping brings about unfair competition; hence, many governments take action against dumping, in order to defend and protect their domestic industries (WTO, 2013).

The WTO agreement under GATT (Article 6) allows governments to act against dumping, where there is genuine "material" injury to the competing domestic industry. In order to do that the government has to be able to show that dumping is taking place, to calculate the extent of

dumping (how much lower the export price is compared to the exporter's home market price), and to show that the dumping is causing injury, or threatening to do so (WTO, 2013).

Cote d'Ivoire's government has put in place measures to regulate and strengthen the investigating authority, thereby enabling it to establish the existence of unfair trade practices caused by dumping and subsidised imports. Good economic governance, in areas such as taxation and business licensing is a fundamental pillar for the creation of a favourable business environment (ITC, 2014).

(v) Safeguard Measures

A WTO member may restrict the imports of a product temporarily (take "safeguard" actions) if its domestic industry is injured or threatened with injury caused by a surge in imports (WTO, 2013). Under GATT Article XIX, members are permitted to apply a global safeguard if a product is being imported "in such increased quantities and under such conditions as to cause or threaten serious injury" to domestic producers of like or directly competitive product.

In order to apply safeguard measures, the injury has to be serious. However, they are improperly used, some governments preferring to protect their domestic industries through "grey area" measures – by using bilateral negotiations outside GATT's auspices (WTO, 2013).

Côte d'Ivoire does not have any specific legislation on safeguard measures. However, in order to prevent the influx of certain imported goods, which are threatening the survival of local industry, government has considered a mix of safeguard measures under the WTO rules (MOC, 2014).

Cote d'Ivoire's legislation on safeguard measures falls under the Competition (Safeguards) (Investigation) Regulations of 2006 in line with GATT Article XIX of the WTO. In addition, government has undertaken to monitor rules of origin and preferential treatment provisions under signed trade treaties or agreement. For instance, the introduction of the Common External Tariff (CET) of the WAEMU as of 1 January 2000 unified, simplified and lowered the customs tariff. Taking into account the standing supplementary duties of the WAEMU and the ECOWAS,

levied solely on imports from third countries (including the community levies of 1.5 per cent ad valorem and the statistical fee of 1 per cent ad valorem). The country has made use of those instruments to protect its domestic producers (WWTS, 2015).

Côte d'Ivoire did not create legislation to fight price dumping and duties that threaten domestic activities. But before the Marrakesh agreement, specific duties were levied on certain meats and dairy products to countervail the negative impacts of subsidies that the EU granted its export products.

(vi) Rules of Origin

The WTO committee has provided an agreement which aims at long-term harmonization of rules of origin, other than rules of origin relating to the granting of tariff preferences (WTO, 2016). This serves to ensure that such rules do not themselves create unnecessary obstacles to trade.

The rules of origin are gradually becoming an economic, political and trade instrument, and their effect goes well beyond the avoidance of trade deflection. This is complicated by globalisation, and the way a product can be processed in several countries before it is ready for the market (WTO, 2013). Not all trade between regional trade agreements (RTAs) partners are carried out under its preferential regime, and that for a number of reasons, amongst which the impossibility of meeting the rules of origin requirements, lack of information on existing RTAs.

In Cote d'Ivoire, few outstanding issues remain as far as the rules of Origin negotiations are concerned. These discussions started from the Rules of Origin used in the Cotonou Agreement. This has already resulted in simplifications that could help West Africa thereby Cote d'Ivoire to develop, such as the "single transformation" for textiles products.

In recent years, the Ivorian economy has suffered from the influx of goods entering Cote d'Ivoire under the guise of preferential trading arrangements specifically goods that are manufactured in Nigeria.

2.5.2.3 Trade Development Instruments

In line with the provision of the WTO, Cote d'Ivoire undertook a number of measures to develop its trade. The priority for the Ivorian government was to make growth inclusive and long lasting to respond to the pressing need of a young population. National competitiveness need to improve, also the country needs better roads, less rigid customs and much simpler taxation which is currently 62 compared to the African average of 36 (African Economic Outlook, 2014)

(i) Buy Cote d'Ivoire development Initiative

The development objective of Cote d'Ivoire is to transform the country by 2020 into an emerging nation. After a decade of multifaceted crises, the Government of Côte d'Ivoire embarked on March 28, 2012 a comprehensive medium-term development strategy called the National Development Plan (IMF, 2016).

The Government requested assistance from the World Bank, which has helped set in place an advisory group dedicated solely to the mobilization of external public and private financing to push the country along the path of sustainable growth. The major challenges the government of Côte d'Ivoire faces are the consolidation of peace and national reconciliation, public administration capacity building, good governance and enhancing the business climate (IMF, 2016).

But the Heavily Indebted Poor Countries (HIPC) Initiative Completion Point was reached in June 2012 and the first phase of the French Government's Debt Settlement and Development Contract is now in effect, so the future looks bright for Côte d'Ivoire (AFDB, 2013). But progress is still needed in land and taxation matters, notably how to obtain construction permits more easily.

(ii) Value Addition

The country supplies 40% of the world's cocoa, as well as coffee (300 000 tonnes a year) (African Economic Outlook, 2014). Cote d'Ivoire's exports are dominated by primary products,

whose international prices are vulnerable to frequent shocks. To survive the challenges of the ever-increasing competition on the international trading environment, the government of Cote d'Ivoire has placed greater emphasis on the production and export of processed goods in all sectors of the economy.

In that regard, the government wants to boost the industrial sector's share of the economy from around 30% of GDP in 2012 to 40% by 2020, and is looking into how to increase raw-material processing, taking into account that some strategic Global Value Chain (GVCs) do not have much room for direct industrial input, such as those whose related products are not traded on world markets (African Economic Outlook, 2014).

(iii) Cluster Initiatives

The cluster concept has gained growing prominence on the agenda of international development organizations over the last decade. The foundations of this paradigm can be traced back to the work of the economist Alfred Marshall, who in *Principles of Economics* described the phenomenon as “the concentration of specialized industries in particular localities” and noted that these agglomerations of small-scale businesses enjoyed economies of scale comparable to those of large firms (Marshall, 1980).

In recent times, donors and development agencies have shown growing concern to the potential of cluster initiatives to bring about pro-poor effects. Generally speaking, thriving clusters can generate income and employment opportunities for the local community and become drivers of broad-based local economic development.

Cote d'Ivoire is part of Accelerating Trade in West Africa (ATWA) which is a new initiative aiming to establish a durable, multi-donor vehicle dedicated to enhancing regional integration, expanding trade and reducing trade costs along key trade routes in West Africa (Saana Consulting, 2016). ATWA will work along national government, regional commissions and the

private sector and will address both “soft” policy and trade facilitation issues and “hard” infrastructure constraints to ensure meaningful impact (Saana Consulting, 2016). ATWA is financed by the Danish aid agency, Danida, although other development partners have already expressed interest to join.

Cluster initiatives is beneficial for developing country such as Cote d’Ivoire because there are proven benefits accruing in terms of the attainment of economies of scale, strengthening the capacity of local institutions, reducing the cost of collective actions, lowering production and transaction costs, global competitiveness and the development of comparative advantages

(iv) Trade Incentives

Taxing exports is not an optimal policy because it distorts trade and reduces world welfare, although it may raise welfare for an individual country.

An export tax improves the terms of trade of the exporter but can be welfare-enhancing only if the terms of trade gain outweighs the deadweight losses from inefficiencies in resource allocation that result from the tax. Cote d’Ivoire like many other least developed countries uses export tax as a source of revenue. The Ivorian producers receive no more than 40% of the world prices for cocoa (Kireyev, 2010).

Côte d’Ivoire export taxes are considered an important source of fiscal revenue and also an indirect way to tax the land used to generate profit. Fiscal levies form part of budget revenue; quasi-fiscal levies are collected to finance sector institutional structures and are not included in fiscal revenue.

(v) Trade Finance

Trade finance is of particular importance to promote industrial production and trade, in view of the credit and liquidity challenges that the country is faced with. The relatively excessive liquidity of the banks is caused the large amount of sight deposits, which explains why banks

offer few long-term loans and explains why the cost of banking operations are still the weak spot of the economy. Access to loans remains very difficult for many economic operators, especially long-term credit (only 6% of all loans) (African Economic Outlook, 2015). Small Medium Enterprises also have little access to short-term working capital, unlike large firms.

In this regard, the government has been of late prioritising the spending on the poor which rose to 9.3% of GDP in 2013 from 8.6% in 2012, but the 2013 national human development report said the multidimensional poverty rate increased from 31.8% in 2008 to 34.4% in 2011 (African Economic Outlook, 2014)

(vi) Export Credit Reinsurance

Côte d'Ivoire's exports market consists of some 800,000 small producers facing, through several hundred local intermediaries, three to ten large buyers (Kireyev, 2010).

Exporters require protection from certain unforeseen commercial and political risks, such as unpredictable payment risks inherent in export transactions, especially when entering new markets or dealing with new buyers. The political and security climate in Cote d'Ivoire had improved substantially in recent years.

The government of Côte d'Ivoire is undertaking comprehensive reform of the cocoa sector. The goals of these reforms are to increase competition among buyers and the share of world prices obtained by farmers, introduce market-based instruments for risk management, and further promote cocoa transformation and export of finished products.

The authorities intend to reduce all taxes to no more than 22 percent of the CIF price. This would help align export taxation in Côte d'Ivoire with international practice (Kireyev, 2010).

(vii) Trade Promotion

Trade promotion activities are designed to market the country's exports to the rest of the world. The ministry of Commerce is the national body mandated to carry out trade promotion. Other bodies involved in trade promotion activities include the ECOWAS Trade Liberalisation Scheme

(ETLS). It is the main ECOWAS operational tool for promoting the West Africa region as a Free Trade Area (Olayinka, 2014). This is in line with the one of the objectives of the community which is the establishment of a common market through “the liberalisation of trade by the removal, among Member States, of customs duties levied on imports and exports, and the elimination among Member States of non-tariff barriers.

(viii) Export Basket Diversification

The country’s export basket is dominated by a few traditional primary product lines, whose international prices are vulnerable to frequent shocks. To survive the challenges of the increasingly competitive international trading order, the government of Cote d’Ivoire undertook major efforts to diversify export crops and end its dependence on cocoa and coffee. In the forest zone, diversification products were palm oil, coconut oil, and rubber, all of which enjoyed a comparative advantage on the international market.

Cote d’Ivoire’s prospects are quite good, the economic recovery through major public work produced growth at 8.8 per cent (African Economic Outlook, 2014). The positive must not hide the big challenge, such as per capita GDP which is still lower. Hence growth must be inclusive.

(ix) Trade Facilitation

The trade facilitation agreement was adopted by the general council in November 2014 into the WTO’s legal framework (WTO, 2014). The agreement will serve as means of assisting developing country and least developed country in securing assistance and support. Once the trade facilitation agreement enters into force, the expected reduction in total trade cost for low income countries will be 14.5 per cent (WTO, 2014). Trade facilitation concepts help customs administrations meet their duties. Similarly, business supply chains are very fluid and no two supply chains appear to be the same. The benefits of trade facilitation and reduced transaction costs between business and government are self-explanatory.

Many developing countries view export diversification as an important policy objective. It has two dimensions: exporting a wider variety of products, and serving more overseas markets.

Gonzalez (2013) argued that export competitiveness starts with trade facilitation. Gonzalez categorised elements of trade facilitation into hardware and software. Hardware includes roads, bridges, ports and airports, which are the necessary landing docks for the business of doing trade. The software of the transactions that allow trade to be processed: customs and border procedures; automation of processes; transparent and consistent fees and charges; and regulatory consistency on how rules at the border are applied.

The WTO, through the ongoing Doha Development Agent (DDA), is seeking to address both of these angles in its negotiating and non-negotiating agenda. However, despite the immediate utility of trade facilitation for both business and government organisations, the implementation of trade facilitation concepts is often riddled with difficulties. The country was ranked 126th out of the 132 countries in the World Economic Forum Global Enabling Trade Index which measures institutions, policies and services to facilitate trade in countries (ITC, 2012).

Most of these can be associated with conflicting interests, institutional limitations and lack of knowledge.

In the same vein, Trade facilitation and market integration issues have continuously been highlighted as the key to allowing greater gains from trade in West Africa by ECOWAS countries. Cote d'Ivoire is in the process of streamlining and simplifying trade facilitation, by eliminating customs delays and improving customs administration. These trade policy instruments have a direct effect on Cote d'Ivoire's trade. A review of the trade policy regimes provides an evaluation mechanism aimed at informing policy in Cote d'Ivoire.

2.6 Trade Agreements

Cote d'Ivoire is a signatory to the Economic Community of Western African States, the Western Africa for Economic Monetary Union, Africa Caribbean and Pacific – the European Union and

the World Trade Organisation Trade agreements (MOC, 2014). The country also has over 32 Bilateral Trade Agreements, which provides a Most Favoured Nation (MFN) regime. This includes the European Union, Ghana, Brazil, Sweden etc. All the arrangements provide frameworks for further liberalisation of trade, and Cote d'Ivoire has made commitments within each of these arrangements towards that objective (WTO, 1995).

2.6.1 World Trade Organisation (WTO)

The WTO (2014) stated that the promotion of competitive exports and global trade-tariff reductions was a necessary improvement for trade liberalisation. It was also noted that most developing countries were advocating improved market access to service sectors. The discussions on trade facilitation were to clear and improve the relevant aspects of Article V (dealing with the freedom of transit of goods from other WTO Member States), Article VIII (dealing with trade-related fees and formalities) and Article X, which deals with transparency in the regulation and administration of trade regulations (WTO, 2014).

There is also consensus that developing countries have a great deal from free trade (Krueger, 1999; Srinivasan, 1999; Stiglitz, 2000; Tangermann and Josling, 1999; Huff, 2000).

Firstly, developed countries can give developing countries one- way trade preferences. This is the basis of the Generalised System of Preferences, designed to promote exports from developing countries to developed countries. Secondly, under the Enabling Clause, developing countries can exchange virtually any trade preferences to which they agree. This provision is intended to promote trade among developing countries themselves. Under the Enabling Clause, preferences need not to lead to full free trade areas; partial preferences across a subset of goods are permitted. Finally, under Article XXIV of GATT, any two or more of the WTO members can form an FTA or customs union.

Cote d'Ivoire signed the Agreement of the GATT in 1947 and became a member in 1963 and the country has also been a WTO member since the WTO was founded in January 1995 (WTO,

2015). Under GATT 1947 and through subsequent rounds of negotiations that took place, Côte d'Ivoire assumed a number of tariff bindings that have restricted its ability to increase customs duties on various commodities of export interest to other WTO members and has also made an offer under the General Agreement on Trade in Services (GATS) (WTO, 1995).

The offer concerns certain professional services and other business services, certain construction, and certain tourism-related services such as (hotels, and restaurants) and a few transport services. The lack of competition results in higher prices and affects the competitiveness of Ivorian exports. The WTO secretariat believed that greater liberalization would stimulate competition and allow costs to be reduced, while at the same time diversifying the number and origin of suppliers (WTO, 1995).

In the Uruguay Round Negotiations, Côte d'Ivoire's main objectives were to improve the legal framework of multilateral trade and to maintain special and differential treatment for developing countries. The World Trade Organisation (WTO) deals with the rules of trade between nations at a near global level.

The instant benefit of being a member of the WTO is that Côte d'Ivoire is able to enjoy the Most Favoured Nation (MFN) and National Treatment Clauses out of 152 members who are members to the WTO (WTO, 2011). The MFN clause means that a country cannot discriminate against any other member countries.

Concessions or preferential treatment have to be applied to all the member states. The National Treatment principle states that a country cannot discriminate in its tax and non-tax laws to similar products in the domestic market (WTO, 2010). Ivorian exports would not suffer from unfair treatment on the export markets. Côte d'Ivoire's participation in the WTO is very convenient for the country, as it would not necessarily need to sign bilateral trade agreements. Côte d'Ivoire is currently participating in the ongoing Doha Development Round (DDA).

The negotiations are centred on the following areas, among others: Agriculture, non-agricultural market access (NAMA), industrial tariffs, non-tariffs barriers, trade in services, trade facilitation, trade-related intellectual property rights (TRIPS) and development (WTO, 2010).

Negotiations are on the most significant differences among the developed nation led by the United States and the European Union and the major developing Countries led by the BRICS (Brazil, Russia, India, China and South Africa).

Negotiations in NAMA are aimed at reducing, or when appropriate, eliminating tariffs including the reduction or elimination of tariff peaks, tariff escalation, as well as non-tariff barriers – in particular on products of export interest for developing countries (WTO, 2004).

There is contention against the US and the EU over their maintenance of agricultural subsidies because they are seen to operate as trade barriers. The negotiations are taking into account special and less-than-full reciprocity in reduction commitments for developing countries. Cote d'Ivoire, together with other developing countries, would like to see more tariffs cut by developed countries, and less agricultural subsidies by the developed countries for their exports to be competitive. Efforts have been made to revive the talk between the US, China and India but so far it has been without success. The future of the Doha Round remains uncertain.

According to the international centre for trade and development, Cote d'Ivoire's official are well aware of what they stand to lose if no reciprocal free trade agreement with the EU is reached. Almost 70% of the total population is engaged in agricultural activity in Cote d'Ivoire therefore without a duty-free quota-free access to the EU market, the local community especially the vulnerable ones will be tremendously affected (ICO, 2002).

Among the officials' concerns is preferential access to the EU for their main exports including cocoa, bananas, wood, tuna and the four canneries' exports to the EU which are the backbone of the business in Cote d'Ivoire. With trade preferences lifted, and no EPA in place, tariffs would rise from zero percent to over 20 percent (ICTSD, 2014). This is a move that could wipe out the entirety of Côte d'Ivoire's exports to Europe.

In 2002 Cote d'Ivoire entered into a Trade and Investment Framework Agreement, or TIFA, with the United States to raise the level and strength of the dialogue with WAEMU on trade and economic issues (WTO, 2012). Under the TIFA, the United States and WAEMU discussed on critical trade and investment issues, including discussions about regional and multilateral trade concerns strengthening and diversifying UEMOA's trade, and the utilization and implementation of the U.S African Growth and Opportunity Act (AGOA). Since its launch in 2000, AGOA has provided opportunities for real people and businesses, for example most of the exports from Côte d'Ivoire to the United States enter the U.S. market duty-free either on a most favoured nation (MFN) or a preferential basis (WTO, 2012).

In developing countries such as Cote d'Ivoire there is the need for trade capacity building assistance to maximize the benefits of trade preference programs, help diversify the economy, and improve the trade environment.

Because the Ivorian industry is already coming under increased competition due to preference erosion with respect to some competitor countries, such as South Korea which can now export tuna at a tariff of 12 percent under the EU-Korea FTA, a failure to reach a deal would not just undermine Côte d'Ivoire's exports of primary products to Europe but it would also reverse the industrialisation process already underway in some sectors (ICTSD, 2014). The case of cocoa illustrates the dilemma they are facing.

In the years since 2005, when the WTO Aid for Trade initiative was launched, some US\$200 billion has been mobilized in funding, with US\$60 billion of this to least-developed countries (LDCs) including Cote d'Ivoire (WTO, 2010). However, much more needs to be done in terms of addressing both supply-side and demand-side issues facing countries on the margins of global trade in products other than minerals.

Discussions are currently focused on the revised proposals submitted by member states on possible commitments to be undertaken in the Trade Facilitation Agreement. More and better trans-border transport infrastructure is essential for promoting regional integration.

The Economist (2013) reports that "shipping a car from China to Tanzania costs US\$4,000, but getting it from there to nearby Uganda can cost another US\$5,000. The WTO trade facilitation agreement in Bali in December 2013 promises to reduce these costs, by simplifying customs procedures and making them more transparent, encouraging cooperation among customs agencies (WTO, 2004).

Cote d'Ivoire is the 5th country to accept the trade facilitation agreement (WTO, 2014). This agreement provides guidelines for effective cooperation between customs and other authorities on trade facilitation issues.

With respect to aid for trade, development is at the heart of the Doha Development Agenda and cuts across all the areas of negotiations. The Doha package mandates the negotiations to consider all Special and Differential (S&D) Treatment provisions, with a view to making them more precise, effective and operational (WTO, 2004). S&D is critical for developing countries to enable them to implement their commitments and obligations – including providing them with policy space, flexibility and balanced rules (WTO, 2004).

Because of differences in expectations in areas of negotiation, as discussed above, it is obvious that there are significant obstacles and costs for traders in Cote d'Ivoire, as they go about their daily business of moving goods to market and participating in the international trading system. We look forward to constructive engagement on trade facilitation issues, especially in the WTO trade facilitation negotiations, to promote measures to reduce customs and cross-border inefficiencies. This study comes at an opportune time, as it enables the country to evaluate the effect of WTO on trade, welfare and revenue in Cote d'Ivoire.

2.6.2 ACP-EU Cotonou Agreement

The Cotonou agreement is an agreement that was reached in 2000 between the EU and the African, Caribbean and Pacific groups of States and a second revision of the agreement was adopted by the EU council in November 2010 (European Commission, 2016). The Lome Convention which is a series of trade agreement between the ACP and the EU were granting

unilateral trade preferences to the ACP within the EU because the ACP were granted free market access to EU countries whereas the EU did not get any corresponding.

The Lome Conventions (1975 – 2000) granted the ACP countries a preferential entrance into global markets, and to diversify their export base (Lui and Bilal, 2009 and Lang, 2006). The Lome Convention expired in 2000 (Lui and Bilal, 2009; Lang, 2006). As a result, in 2000, ACP countries and the EU signed a new agreement called the Cotonou Agreement. The new trading regime between the EU and ACP countries created reciprocal trade relations in conformity to the WTO trade rules from 2008 on (Lang, 2006).

The Convention provided a framework for trade, aid and political relations between the EU and ACP countries. Under Lome, the ACP countries had free non-reciprocal access to the EU market for substantially all products. The Lome Convention also provided for EU official assistance to the ACP countries, financed through the European Development Fund (Lui and Bilal, 2009; Lang, 2006 and Karingi et al., 2005).

The Lome Convention non-reciprocal trade preferences expired on 31 December 2007 (Lui and Bilal, 2009). Before this date, in February 2004, the ACP countries and the EU launched the Economic Partnership Agreements replacing the Cotonou Partnership Agreement (CPA) (Lui and Bilal, 2009). The major objective of EPAs was to promote the development of ACP countries. The EPAs also aimed to foster the smooth integration of the ACP into the world economy, through sustained developments and contributing to poverty eradication (Lui and Bilal, 2009; Lang, 2006 and Karingi et al., 2005).

The aim of EPAs was to comply with WTO rules by being based on the principle of reciprocity. This meant that the EU would open up its markets to ACP-produced goods and in return, the ACP states would open themselves up to EU exports. EPAs will open the door for imports into the EU and ACP. Therefore there should be a clear understanding on the level of liberalisation required by each ACP country. Ideally, there would be a regional consensus when entering into an EPA. Cote d'Ivoire signed interim Economic Partnership Agreements in December 2007

(Stevens and Kennan, 2005). These agreements were put in place to prevent disruption of their exports to the EU after the trade provisions of the Cotonou Agreement expired at the end of that month and to provide additional time to negotiate a more comprehensive regional EPA.

The signing of EPAs will lower the costs of inputs and manufactured goods; increase the competitiveness of the local economy by encouraging the diversification of production and development of manufacturing so as to better integrate into international supply chains and access local, regional and international markets and will also address services such as telecommunications, transport, banking and construction which are the backbone of a modern, growing economy such as Cote d'Ivoire (De Gucht, 2010). This explains why Cote d'Ivoire seems to be the key driver pushing for the completion of the EPA in the region. The country stands to lose especially in the cocoa and banana sectors if preferences to the EU are terminated (European Commission, 2010).

West-Africa moved its market access offer from 60% to 75% in terms of tariff lines throughout the EPA negotiations, and agreement on this issue has been reached at a technical level in January 2014, and this current offer of 75% continues to be a concern for civil society and the private sector, as in value terms it would appear to liberalize more than 80% of EU's current imports into West Africa (European Commission, 2010).

(a) The Implication of the ACP – EU Agreement for Cote d'Ivoire

West Africa accounts for more than 38% of total trade between the EU and all African, Caribbean and Pacific (ACP) regions and European annual exports to West Africa are worth approximately €31 billion whereas West African exports to the EU account for €37 billion (European Commission, 2015). The EU supplies a large part of the equipment that contributes to economic growth and development in the region and is the main export market for West African agricultural and fisheries products

The proposal of the agreement aims to put ACP-EU trade relations on a solid legal footing based on the respect of WTO and EU law, as well as balance and fairness towards other ACP and indeed non-ACP developing countries.

Côte d'Ivoire has signed but not yet ratified its agreement, but the country still has to make the choice on how to go ahead and establish a partnership with the EU such as maintaining free access to the EU, they can take the necessary steps towards ratification of their respective interim EPAs or conclude the regional West African EPA (European Commission, 2014). The rest of the West African region largely comprises Least Developed Countries, they have duty free access to the EU under the Everything But Arms (EBA) scheme while full EPA negotiations continue.

The country stands to lose especially in the cocoa and banana sectors if preferences to the EU are terminated hence, Côte d'Ivoire signed the interim EPAs because it is particularly concerned about its exports such as cocoa, bananas and conserved tuna, to the EU market. However, Cote d'Ivoire's prime minister noted that if the EPA negotiations would not lead to a conclusive result, 41% of Côte d'Ivoire exports would face EU customs duties causing an estimated 772 billion FCFA annual loss (European Commission, 2010).

Cote d'Ivoire and other African countries, have immediate access into the EU market. However, the ACP countries will be allowed 15 to 25 years to open up to EU imports, which address the African State's concerns regarding implementation time and policy space (Lui and Bilal, 2009).

According to Lui and Bilal (2009), EPAs help create the right conditions for trade, investment and sustainable development. Together with development aid, the agreements could deliver a number of benefits for Cote d'Ivoire.

More markets and more sales, by opening the EU market fully to imports from Cote d'Ivoire, new market opportunities would be created for the country. Trade between Cote d'Ivoire and the EU would be strengthened. The majority of EPAs concluded to date are neither complete nor

comprehensive trade agreements. Almost all signatory states were countries that would bear substantial economic costs if they lost their preferences in the EU market (Meyn, 2008).

The EPA will help West Africa, as well as Cote d'Ivoire to integrate better into the global trading system and will support investment and economic growth in the region. The agreement is the first Economic Partnership that brings together not only the 16 countries of the region but also their two regional organisations: the Economic Community of West African States (ECOWAS) and the West African Economic and Monetary Union (WAEMU). This is a clear indication of the West African drive towards closer regional integration, which the EPA seeks to support.

Also, the French, Spanish and German agricultural lobbies' succeeded in protecting their farmers from ACP agricultural exports – of which more than 97% enter the EU market already duty and quota free and which account for less than 1.5% of EU's total imports (Meyn, 2008). This explains why the rich EU member states are also increasingly unwilling to promote ACP development mainly because of increasing unemployment rates and inequalities in most European states.

In the interim EPA texts several restrictions are imposed on provisions specifically dedicated to infant industries, making them in fact more akin to traditional safeguards. In the case of Cote d'Ivoire the maximum length for infant industry protection is 8 years (Lui and Bilal, 2009).

The extent to which the opening up of trade with the EU would affect Cote d'Ivoire is reviewed in this study.

2.6.3 Regional trade integration

Regional integration within ECOWAS and WAEMU is another important platform through which Cote d'Ivoire is undertaking further trade liberalisation measures. Cote d'Ivoire's trade policy is exogenously determined by the regional trading protocols. Since the 1990s, all ECOWAS and WAEMU countries have been liberalising their trade and foreign exchange regimes unilaterally under market economic reforms supported by the IMF and the World Bank (Kingston et al, 2011).

(a) ECOWAS

The Economic Community of Western African States is made up of 15 member states. This comprises: Cote d'Ivoire, Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. The ECOWAS was established in May 1975 in Lagos in Nigeria. The organisation is headquartered in Abuja, and sought to promote value creation of the regions natural wealth (Yabi, 2010).

The regional integration programme under ECOWAS came into existence because West Africa was the source for substantial amount of the industrialized world's raw materials. The primary objectives of ECOWAS were to promote cooperation and integration, leading to the establishment of an economic union in West Africa. This aimed at raising the living standards of its people, ensuring economic growth, improving relations among Member states and contributing to the progress and development of the African Continent (ECOWAS Treaty, 1975).

The decade of the 1990s has been particularly crucial for ECOWAS' evolution into an organization capable of intervening diplomatically and militarily in cases of serious threats to the security of a Member State and within the community space. ECOWAS consequently contributed in the arduous resolution of protracted and devastating civil wars in Liberia (1990-97 and 2003-2007) and Sierra Leone (1991-2002), (Yabi, 2010).

The bigger challenge in terms of ECOWAS membership is the formation of blocs within ECOWAS that have become formalized in separate regional organizations and arrangements with separate agendas (although interestingly without a governance mandate). For example, the seven Francophone states (plus Guinea Bissau), organized in the WAEMU (West Africa Economic Monetary Union) since 1994, have remained relatively closely linked to France via a monetary union (Zone CFA) and to each other.

It remains to be proven empirically whether Cote d'Ivoire has been able to exploit this market. In order to gain from trade liberalisation Cote d'Ivoire opened its trade access in the ECOWAS

market, Cote d'Ivoire signed the WAEMU customs union and the EU-FTA but has not yet ratified the latter.

(i) ECOWAS FTA

A free trade area (FTA) represents an economic bloc in which all barriers to trade are abolished among member countries, but each member maintains its own independent external trade barriers beyond the bloc. The free trade agreement as opposed to the custom union does not specify the external tariffs of all signatories contractually (McLaren, 2004).

The creation of such a FTA with the EU will obviously create important challenges as well as opportunities for ECOWAS countries. While EPAs will confer additional legal security to already existing preferential market access to the EU, they will also result in a major liberalisation effort for ECOWAS and other ACP countries. These countries will have to dismantle almost all tariffs on goods imported from the EU, their main source of imports. This could have a significant impact on national producers, on the level of tariff revenues and on the level of intra-regional trade (Lang, 2006). There is therefore a need to examine in detail the potential impact of EPAs in development terms.

(ii) ECOWAS CUSTOMS UNION

A custom union. It allows free trade among its members and adopts a common external tariff against countries outside the custom union (Peter, 1979). The Economic Community of West African States has decided to establish a common external tariff (CET), which is currently being finalised. The tariff, set at 35 percent at most, will modify the rights and obligations ECOWAS member countries (ICTSD, 2012). Member States, in a customs union, would also adopt and apply the same rates of customs duty on goods imported from outside their territories. The customs union also adopts and applies common trade regulations on all goods coming from outside their territories. The same rates of customs duty are referred to as a Common External Tariffs (CETs). The CET is higher than bound tariffs because in the case of Cote d'Ivoire since its current bound tariff of 14.9 percent is so low that even a CET limit of 20 percent would be too

much (ICTSD, 2012). ECOWAS is currently a free trade area but with the adoption of a common external tariff, it would become a full-fledged customs union.

(b) WAEMU

WAEMU is a regional organisation of eight West African countries (Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo). They share the same currency West African francs (CFA francs), monetary policies, and French as an official language. The objective of the union is to promote regional economic integration and create a common market (Egoume and Nayo, 2011). The economy is predominantly agricultural, cocoa, coffee, timber, cotton are among the cash crops produced and exported by the union and Cote d'Ivoire represents the largest economy of the union. (Egoume and Nayo, 2011).

The creation, between 1996 and 2000, of the West African Economic and Monetary Union (WAEMU) customs union was an important step toward greater regional integration in western Africa (Goretti and Weisfeld, 2008). WAEMU countries share the same currency and have established institutions and regulations to foster economic integration, such as regional tariff agreements and tax harmonization. Within the WAEMU, Côte d'Ivoire provides the largest share of intra-zone imports, it has the largest manufacturing base, particularly in Agro-Industry, the largest and most technologically advanced oil refinery in West Africa, supplying oil products to all of its neighbors (Burkina Faso, Mali, and Ghana) (Egoume and Nayo, 2011).

The main objective behind the creation of the WAEMU was part of an initiative to boost regional integration and policy effectiveness after the CFA franc was devalued relative to the French franc in 1994 (Goretti and Weisfeld, 2008).

(i) WAEMU FTA

Although creation of the customs union has improved the region's trade regime, both structural constraints and competitiveness concerns have impeded its implementation. There are still costly

border procedures, lack of compliance with community rules, especially in terms of the rules of origin, weak governance and inadequate transport infrastructure (Goretti and Weisfeld, 2008).

Progress in setting up a free Trade area in WAEMU is currently moving at a snail pace. Recent trade initiatives bring both opportunities and challenges. An Economic Partnership Agreement (EPA) with the European Union (EU) could bring reaching reciprocal trade liberalization between the WAEMU and the EU. Finally, global trade liberalization, for example through a revived Doha Round, could further improve market access and affect world market prices for some of the region's main agricultural products like Cote d'Ivoire.

Côte d'Ivoire has set up an initial framework for an Economic Partnership Agreement (EPA) with the EU. This agreement combines the benefits of a trade agreement with development assistance targeted at Côte d'Ivoire but its final goal remains to conclude a full EPA with all the members of the West African region.

Both WAEMU FTA provide costs and benefits to Cote d'Ivoire. This study reviews how Cote d'Ivoire fared with respect to trade, revenue and the welfare implications of WAEMU FTA.

(ii) WAEMU Customs Union

A customs union is created when two or more customs' territories decide not to charge duty on goods traded amongst them (COMESA, 2009). Member States in a customs union also adopt and apply the same rates of customs duty on goods imported outside their territories. The customs union also adopts and applies common trade regulations on all goods coming from outside the territories. The same rates of customs duty are referred to as a Common External Tariff (CET).

As a member of the WAEMU Customs Union, Cote d'Ivoire does not charge tariffs on imports from the other seven WAEMU member countries. Imports from all other countries are subject to tariffs based on the WAEMU Common External Tariff (CET) schedule of 0 percent for essential social goods, 5 percent for raw materials and inputs for local manufacture, 10 percent for semi finished goods, and 20 percent for finished products (WTO, 2014).

The adoption of the free trade agreement in 1996 and of the CET in 2000 reduced tariff rates and streamlined the tariff structure. Although no tariff or quantitative restriction is applied to intraregional trade in domestic products. The simple average most favored nation (MFN) tariff rate is 14.2 percent (Goretti and Weisfeld, 2008).

This study reviews how Cote d'Ivoire fared with respect to trade, revenue and the welfare implications of the WAEMU customs union. This study looks at the scope for boosting intraregional trade and it discusses prospects for enhancing trade with other countries.

2.6.4 Bilateral Trade Agreements

Cote d'Ivoire entered into Bilateral Trade Agreements encompassing both Preferential Trade Agreements (PTAs) and Most Favoured Nation (MFN) with over 34 countries across the globe. . Côte d'Ivoire is not a signatory to the Agreement on the Global System of Trade Preferences (GSTP) among Developing Countries though it has signed a number of commodities agreements under the auspices of the United Nations Conference on Trade and Development, including the agreements on coffee, cocoa, rubber and tropical timber (WTO, 1995).

Some of the countries with which the country signed bilateral trade agreements include the ECOWAS countries, the European Union, Sweden, Brazil and Ghana (WTO, 1995). These agreements are aimed at broadening the scope for market access on the basis of reciprocity.

China which is Cote d'Ivoire's third top import destination with about US\$ 1.44 billion also signed a Bilateral investment treaty with Cote d'Ivoire which emphasises on favoured national treatment between the two nations (Berger, 2008).

Cote d'Ivoire entered several bilateral agreement, under the EPAs the country became the first country in Africa to sign a stepping stone bilateral agreement with the EU in 2007 and recently it entered a bilateral trade agreement with Singapore in 2014 (MTI, 2014; European Commission, 2010). In view of this, based on the fact that most Cote d'Ivoire trading partners are part to regional trade agreement, there is a greater possibility of the upcoming bilateral trade agreements

being harmonised to an FTA trading protocol. This situation brings about an invisible bilateral free trade agreement (BFTA), which has the same impact on the economy of Cote d'Ivoire as does a visible one.

This study evaluates the impact of BFTAs on trade, revenue and welfare in Cote d'Ivoire. The selection of these countries is based on trade flows. Hence, the analysis undertaken in Chapter 3 becomes useful to evaluate any possible members of BFTAs for Cote d'Ivoire.

2.7 Cote d'Ivoire's Tariff Structure

Cote's tariff structure and the WAEMU CET/ECOWAS CET are both based on a cascading principle, whereby the duty charged is proportionate to the level of value added. Final goods are levied the highest rates, while raw materials and capital goods are charged lower tariff rates. This is done, in order to promote the manufacturing sector and to protect the industries producing finished products from outside competition. Tariff rate, applied, simple mean, manufactured products (%) in Côte d'Ivoire was 12.62 as of 2013 which was the highest value over the past 20 years was 23.73 in 1993 (African Economic Outlook, 2014).

The WAEMU customs union entails free movement of goods between the member countries and the application of a common external tariff (CET) on imports from other countries.

The WAEMU CET and the extended ECOWAS common external tariff (CET) to all countries in the Economic Community of West African States (ECOWAS) in 2014 with five bands (0%, 5%, 10%, 20% and 35%) changed the regional issues and economic opportunities greatly (African Economic Outlook, 2014).

Cote d'Ivoire's tariff structure is a very complex one under the WAEMU CET/ECOWAS CET as the country is a signatory of the two. WAEMU countries apply CET to import from the other ECOWAS countries, and in turn ECOWAS countries apply country specific tariffs to imports from the WAEMU (Goretti and Weisfeld, 2008). Both WAEMU and ECOWAS are putting in

place region wide programs to address cumbersome custom procedures and uneven application of the rules.

The country is among the few countries in the region with high tariffs. This implies that the country has to move away from its current regime, characterised by large tariff dispersion, in order to comply with the 25 per cent dispersion under the ECOWAS/WAEMU CET.

Table 2. 1: Structure of ECOWAS CET

Category	Description	Average Duty rate	Number of Tariff lines
0	Essential Social Goods	0%	85
1	Raw materials	5%	2146
2	Inputs and Intermediate goods	10%	1373
3	Final consumption goods	20%	2165
4	Capital goods	35%	130

Source: European Centre for Development Policy Management (2013)

Table 2.1 shows the distribution of tariff lines across tariff bands for ECOWAS.

The ECOWAS CET is organized into five different tariff bands, of 0 per cent, 5 per cent, 10 per cent, 20 per cent and 35 per cent. The first four bands are taken from the UEMOA CET the last tariff band, the so called “fifth band” was added after much discussion and strong argumentation provided by Nigeria, supported by West African agricultural producers, notably from UEMOA countries.

2.7.1 The structure of the ECOWAS and WAEMU CET

The WAEMU tariff rates constitute an important source of revenue for WAEMU countries. In 2013, import duties represented at least 13 per cent of total government revenue in Cote d’Ivoire as well as all WAEMU countries (WAEMU COMMISSION, 2014).

Table 2.2 also shows that WAEMU CET only has 4 bands, the fifth tariff band applied by ECOWAS for specific good for economic development, implies a custom tax increase for WAEMU countries such as Cote d'Ivoire. However, the upward alignment of tariffs, on the other hand results *ceteris paribus* in gains in revenue. Can the revenue gains compensate for the loss in revenue? This question is answered empirically in this study.

The price elasticity of Import Demand varies strongly across WAEMU countries, in Cote d'Ivoire the price elasticity of Import Demand was about 0.2% in 2014 which was one of the lowest in the region (WAEMU COMMISSION, 2014)

A unilateral liberalisation of tariffs under the WTO context, therefore, requires the country to apply zero tariffs on the remaining tariff lines. Since the effect of this move on revenue is ambiguous, this therefore, means that Cote d'Ivoire could possibly see an increase in VAT revenue, due to the increase in imports, which could later compensate for the loss of tariff revenue, as suggested by Waglé (2011).

Table 2. 2: Structure of ECOWAS and WAEMU CET

Category	Description	WAEMU Duty Rate (in Percent)	ECOWAS Duty Rate (in Percent)
0	Essential social goods	0	0
1	Raw materials and specific inputs	5	5
2	Inputs and intermediate goods	10	10
3	Final Consumption goods	20	20
4	Specific goods for Economic Development	-	35

Source: WAEMU COMMISSION (2014)

- Columns in Table 2.2 represent:

- Category 0: Basic Social goods based on a restricted list: for public health purposes (medicines, medical rehabilitation equipment) or for educational purposes (Books, Journals)
- Category 1: Basic goods, raw materials, basic foodstuffs (powdered milk, cereals), raw materials (seeds, breeding animals species), capital goods (industrial machinery, computers)
- Category 2: Inputs and intermediate products: Semi-processed products (crude oil, ply wood, paper roll)
- Category 3: Finished Consumer goods ready for consumption

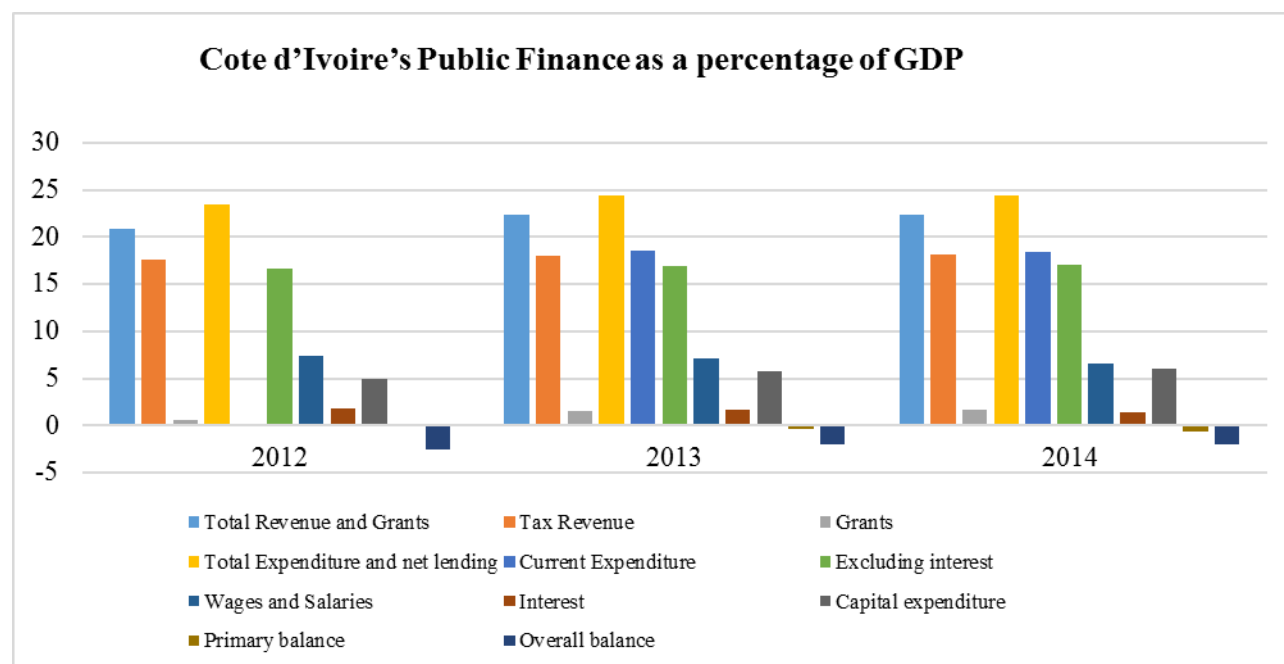
2.8 The Importance of Customs Revenue to Cote d'Ivoire

Brenton *et al.* (2009) emphasised that developing countries are keen to improve the structure of their trade incentives by way of an outward-looking trade and competitive strategy. Brenton *et al.* (2009) argue that developing countries, especially low-income countries, face serious revenues challenges if they liberalise their economies. The revenue situation is worsened by the fact that in most developing countries tariffs are an important source of tax revenue, because of the weakness of the domestic tax base and other tax instruments (Brenton *et al.*, 2009).

Changing the level of revenue collected through custom duties necessarily has an impact on a government's budget. The decline in receipt from 1999 has been compensated by an increase in revenue from internal taxes notably from VAT and excise duties (WAEMU COMMISSION, 2014).

Cote d'Ivoire is among those countries that depend on import duties as a source of fiscal revenue. According to MOC (2014), the percentage of national revenue collected by customs in overall taxes declined from 37.08 per cent to 30.49 per cent from 2010 and 2011, respectively. The decline in customs revenue was caused by continuous implementation of regional trading protocols, such as FTAs with the EU. The contributions of domestic sources of revenue, which are considered in this study – such as VAT and excise duties – are significant.

Figure 2.2: Cote d'Ivoire's Public Finance as a percentage of GDP



Source: MOF (2015)

Higher revenue and better management of spending reduced the overall deficit, which shrank from 2.6 per cent in 2012 to 2 per cent in 2013 (see Table 2.3). This can be explained by a big rise in imports of intermediate and capital goods (African Economic Outlook, 2014). The increase in imports will create additional tax revenue for the country.

2.9 Summary

This chapter has reviewed the macroeconomic developments in the Ivorian economy and trade policy developments, which the government undertook in response to the pressure from globalisation forces. The main purpose of this chapter was to reveal Cote d'Ivoire's past developments, current and future prospects for its economy, and to see how it is positioned to benefit from trade agreements. The country's prospects are quite good. The economic recovery, through major public works projects, with further social reforms is producing a better business climate.

Côte d'Ivoire provides the largest share of intra-zone imports, the largest manufacturing base, particularly in Agro-Industry and the largest and most technologically advanced oil refinery in West Africa, supplying oil products to all of its neighbors (Egoume and Nayo, 2011).

Also the significant role that cocoa plays in the Ivorian economy today renders it vital to the social and economic health of the Ivorian state, yet, foreign interests continue to control the Ivorian cocoa industry. Despite the prominence of cocoa production in Ivorian society, Western Europe consumes the largest proportion of cocoa in the world, 33%, compared to 24% in the United States alone (Fell, 2007).

Thus, Cote d'Ivoire and other western African cocoa producers thus remain highly dependent on the changes in Western Europe's demand for cocoa. This fundamental dependency on one primary export commodity creates a precarious economic situation. The lack of economic diversity has created a fragile and vulnerable society, as nearly thirty percent of the local population remains dependent on a fiscally volatile agricultural commodity.

Even today, the social significance cocoa holds in Cote d'Ivoire hinders Ivorians' ability to exercise significant power in the international cocoa market.

Liberalisation in the cocoa sector in 1999 allowed for the entrance of foreign-owned cocoa groups and these multinational companies now control close to 90% of the internal market for cocoa and coffee, displacing local Ivorians in their rise to power (Egoume and Nayo, 2011).

However, evidence suggests that cocoa farmers did not experience the benefits from these price increases. Indeed, in many ways liberalization seems to have hurt farmers more than it has helped them.

On the trade-policy front, trade-policy instruments, bilateral, regional and multilateral integration have been reviewed. The main purpose of this discussion was to explore in detail the trade policies, which Cote d'Ivoire has implemented over the years. This analysis formed the basis for

the subsequent chapters, in which this study will review how these policies have affected Cote d'Ivoire. Côte d'Ivoire has ratified the Uruguay Round Agreements.

Cote d'Ivoire embarked on the creation of the West African Economic Monetary Union (WAEMU) customs union which was an important step toward greater regional integration in western Africa and serves as an initiative to boost regional integration and policy effectiveness after the CFA franc was devalued relative to the French franc in 1994 (Goretti and Weisfield, 2008).

The WAEMU customs union entails free movement of goods between member countries and application of a common external tariff (CET) on imports from other countries. Recent trade initiatives bring both opportunities and challenges. First, global trade liberalization, for example through a revived Doha Round, could further enhance market access and affect world market prices for some of the region's main agricultural products.

Secondly an ECOWAS-wide customs union could boost trade between the WAEMU and its West African neighbors. Finally, the Economic Partnership Agreement between the EU and the Cote d'Ivoire could bring far-reaching reciprocal trade liberalization between the WAEMU and the EU. Cote d'Ivoire is also among the 79 Caribbean and Pacific (ACP) countries with which the European Union (EU) concluded the Cotonou Agreement in June 2000, which covers the period up to 2020. The Cotonou Agreement provides for the negotiation of regional economic partnership agreements.

However, these trade agreements between the EU and African ACP countries were declared to violate terms set down by the WTO which demand that trade liberalization should be reciprocal in nature. The EU and ACP agreed to conclude new WTO compatible trading arrangements by gradually removing barriers to trade between them and enhancing cooperation in all areas relevant to trade. In order to find a substitute for the Cotonou Agreement, negotiations commenced to establish EPAs.

Cote d'Ivoire continued to shape its trade policy through its bilateral, regional and multilateral agreements. The country is a signatory to WAEMU, ECOWAS, ACP – EU and WTO agreements. In addition, the country also has over forty bilateral Preferential Trade Agreements. All the arrangements provide frameworks for the further liberalisation of trade; and Cote d'Ivoire has made commitments within each of these arrangements.

The main objective of this study was to review the impact of different trade policy regimes Cote d'Ivoire has applied under WAEMU and ECOWAS, EPAs and WTO arrangements, as well as bilateral agreements in its economy. The challenge at hand is that Cote d'Ivoire has 19% of its total revenue from WAEMU tariff receipts (IMF, 2014); this means that in the case of further liberalisation Cote d'Ivoire would have to find another source of revenue to compensate for this loss. This would be the same situation for the ECOWAS. The application of the ECOWAS CET has placed some members in violation of the WTO bound rates. ECOWAS need to provide compensations to the WTO members negatively affected by the change of bound tariffs because the majority of West African countries have high bound tariffs of about 98 percent for some countries (ICTSD, 2014).

ECOWAS members are currently working toward a common external tariff (CET). This new ECOWAS CET will replace the existing WAEMU CET. It is, therefore, imperative that a study be carried out to investigate the impact of trade liberalisation on welfare, revenue, imports, exports, trade creation and diversion, and prices.

Having set a clear picture on the performance of the economy and the trade-policy regimes, chapter three will scrutinise Cote d'Ivoire's trade performance, trends and developments with its trading partners. Of specific interest, Cote d'Ivoire's exports and imports dynamics with WAEMU, ECOWAS, EU and WTO will be examined. The purpose of this discussion is to explore how Cote d'Ivoire trade has performed within the context of its trade agreements. The facts analysed here provide a preliminary picture of Cote d'Ivoire's major trading partners which is was one of the objectives of this study.

CHAPTER THREE

COTE D'IVOIRE TRADE PERFORMANCE

3.1 Introduction

Cote d'Ivoire's trade performance, the trends and developments with its trading partners, is reviewed in this chapter. Of specific interest, Cote d'Ivoire's export and import dynamics with WAEMU, ECOWAS, WTO and EU are examined. The purpose of this discussion is to explore how Cote d'Ivoire's trade has performed within the context of its trade agreements. The facts analysed here provide a preliminary clue to Cote d'Ivoire's major trading partners. And this is one of the objectives of this study.

The chapter is organised as follows: Section 3.2 to section 3.5 examines Cote d'Ivoire's trade performance in WAEMU, ECOWAS, EU and WTO, respectively. These sections identify the major exports and export destination, the major imports and import sources, as well as Cote d'Ivoire's trade balance with the above-mentioned trading blocs. Section 3.5 examines the geographical distribution of exports by groupings. Section 3.6 evaluates the geographical distribution of import sources by grouping. Both sections 3.5 and 3.6 provide an opportunity to evaluate Cote d'Ivoire's major trading bloc. And this is one of the objectives of this study.

Section 3.7 discusses the drivers of Cote d'Ivoire's trade performance. Section 3.8 wraps up the chapter by outlining a summary of the important issues in this chapter.

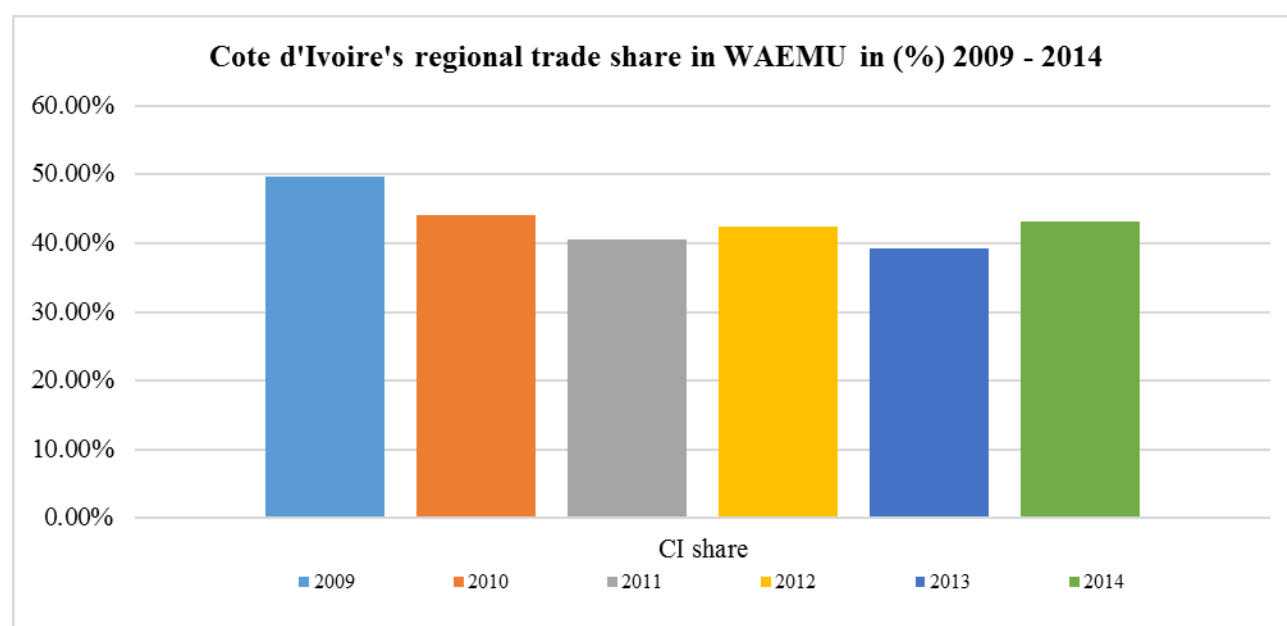
3.2 Cote d'Ivoire's Trade Performance in WAEMU

As discussed in Chapter 2, Cote d'Ivoire is a member of the WAEMU regional grouping, together with the other 7 member states. A review of how the country has performed in this region becomes pertinent, in order to enable stakeholders to understand whether the country is benefitting from WAEMU, based on its export performance.

In most studies, results have found that the level of intra-regional trade in UEMOA is low and suffers from various bottlenecks (see Agbodji, 2008; Coulibaly, 2009 and Salisu et al., 2012)

Figure 3.1 shows Cote D'Ivoire's trade evolution in WAEMU from 2009 to 2014. In addition, it also recorded the highest share of export during that period, though it has the least share of total imports in the region. This perhaps, is an indication that Cote-d'Ivoire is the major intra-regional exporter in the WAEMU region and is relatively independent of other member countries in the region in terms of import.

Figure 3.1: Cote d'Ivoire's regional trade share in WAEMU (in %) 2009 -2014



Source: International Trade Centre (2016) and author's own calculations

Niger and Togo contributed the least to the total trade in the region with about 7.6 and 4.5 percent respectively with Niger which has not been able to contribute up to 10 percent to both export and import at any time in the region (UNCTAD, 2013). This is probably a signal to the low level of productivity and resource endowment of the country relative to other members. WAEMU is a small economic union compare to other major ones around the world and that there is still ample opportunity for it to increase trade within and outside the region. Despite the opportunities WAEMU offers, Cote d'Ivoire's export performance has been characterised by inconsistency.

3.2.1 Cote d'Ivoire's Major Export Markets in WAEMU

The top export destinations for Cote d'Ivoire's products in WAEMU from 2008 to 2014 are shown on the graph below. These destinations are: Mali, Burkina Faso, Benin, Senegal, Togo. As shown in table 3.1, Burkina Faso is the major export market for Cote d'Ivoire in the WAEMU region. In 2014, Cote d'Ivoire's exports to Burkina Faso were valued at US\$570 million.

Table 3. 1: Cote d'Ivoire's Top Export Markets in WAEMU from 2008-2014 (US\$ Million)

DESCRIPTION	PERIOD						
<i>Exports</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Benin	104	96	110	97	137	66	71
Mali	325	266	226	241	295	357	368
Senegal	163	14	113	172	218	134	149
Togo	138	70	66	140	123	105	186
Burkina Faso	412	381	360	343	380	479	570
Guinee Bissau	8.3	6.7	30	61	56	30	22
Niger	55	59	52	46	63	53	86

Source: UN COMTRADE Statistics (2016)

The major crops produced in Cote d'Ivoire are cocoa, coffee, and cotton respectively in terms of export revenues generated. As one of the important cash crops for the Ivorian economy, Cotton production is mostly done in the northern region of the country. Recent production of cotton fiber is estimated to 5 million tons in five years from 2007 to 2011. Cotton export from the WAEMU market (Burkina Faso and Mali) represents more than 60% of the agricultural export and accounts more than 30% of the country's total export (Essoh, 2014).

It is interesting to note that Burkina Faso and Mali are the top exporting destination for Cote d'Ivoire. However, the major challenges, the region is facing is that WAEMU now also has a common framework for agricultural and mining policy, as well as for certain services categories, inter alia implementation is, however, far from complete in all areas. The effective continuation of reform, including trade liberalization, would enhance the business climate and would help to

attract the capital needed to develop the many as yet unexploited assets in the two countries, not only in the area of agriculture, livestock breeding and mining, but also in certain services.

There is also little mechanization in agriculture, a key sector of their economies, which remain highly vulnerable to external shocks, including weather factors (Goretti and Weisfeld, 2008).

The challenge currently facing Burkina Faso and Mali is to provide stable financing for their budgets, for the moment essentially based on the revenue earned from international trade, while continuing their trade liberalization efforts at the unilateral, bilateral, regional and multilateral levels and this undeniably has an impact on the region exports. The obstacles to trade need to be addressed by measures that go beyond the dismantling of tariff barriers.

The WAEMU Commission (2014) reveals that boosting investment in member States depends on improving the business climate, which among other things consist of resolving the recurrent problem of load-shedding as well as dealing with the legal uncertainties, rather than focusing on the various incentives that are granted.

Although Côte d'Ivoire has been the largest supplier in the WAEMU over time, for 2004–07 WAEMU country shares of imports from Côte d'Ivoire generally declined, certainly due to its instability and further trade liberalization, which both led to trade diversion.

Côte d'Ivoire's cumulative losses in terms of trade volume with its WAEMU partners during the instability period that started in 1999 up to 2007 are estimated to be around US\$8.7 billion against total actual aggregate intra-WAEMU trade flows of around US\$15 billion (Egoume and Nayo, 2011).

It appears that the lost trade for Côte d'Ivoire has been permanent to a large extent, and has cost Côte d'Ivoire almost 40 percent of its potential trade flows with the rest of the WAEMU (Egoume and Nayo, 2011). Côte d'Ivoire's lost trade has resulted in trade gains for other WAEMU countries, reducing aggregate losses for the whole region over time. This also confirms that there has been trade diversion away from Côte d'Ivoire. This suggests that the more stable the country is the better it is for the entire region's trade and economic performances.

Salisu et al (2012) found that geographical and political factors are the major drivers of bilateral trade between WAEMU members, therefore a country like Cote d'Ivoire should now take advantage of its relative stable and diversified economy to further liberalise its economy to reap the full benefits liberalisation can offer.

3.2.2 Cote d'Ivoire's Major Import Markets in WAEMU

Cote d'Ivoire's major import sources in WAEMU are Senegal, Burkina Faso, Benin and Mali. Senegal is the major supplier of Cote d'Ivoire's imports from WAEMU (see table 3.2). The top exports destination of Senegal are India, France and Cote d'Ivoire and in 2013 Senegal exports to cote d'Ivoire was valued at US\$93.3 million (EconomyWatch, 2010).

UNCTAD (2013) noted that most of the recent increase in trade between West African countries can be attributed to the increased demand for primary commodities by the larger countries in the region.

Cote d'Ivoire's main import is fuel which is 25 percent of total imports, followed by rice, machinery and pharmaceuticals. The country main trading import partner are France, Netherland, United states and Nigeria (UN COMTRADE, 2015). Cote d'Ivoire therefore imports the least from the WAEMU region. In 2014 Cote d'Ivoire imported goods worth US\$96 million from Senegal (see table 3.2). The imports growth in Cote d'Ivoire has increased for the period of study and this increase in imports is due to growing demand for intermediate and capital goods.

Table 3. 2: Cote d'Ivoire's Top Import Sources from WAEMU from 2008-2014 (US\$ Millions)

DESCRIPTION	PERIOD						
<i>Imports</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Benin	20	13	4.9	0.5	13	12	12
Mali	1.05	0.87	1.09	0.3	11	7.01	6.1
Senegal	54	56	49	67	87	96	94
Togo	7.28	4.3	6.1	5.5	36	23	11
Burkina Faso	0.42	0.98	3.5	4.04	33	30	16
Guinee Bissau	0.004	0.012	2	1.53	0.62	5.11	0
Niger	0.59	0.42	0.7	0.9	3.7	1.79	5

Source: UN COMTRADE Statistics (2016)

Burkina Faso is the second import source for Cote d'Ivoire, with imports valued at US\$33 million in 2012. Major imports from Burkina Faso include animal and vegetable products, motorcycles and batteries valued at US\$9.8. million, US\$97.97 million and US\$1.18 million respectively. The sudden increase in imports from Burkina Faso can be attributed to the political instability Cote d'Ivoire had to go through which created a trade diversion.

Benin is the third import source for Cote d'Ivoire, supplying US\$12 million worth of goods imported by Cote d'Ivoire in 2014. Benin's top export includes raw cotton, cashews and Gold. The top import destinations are China, India and Nigeria with a trade volume of US\$163 million, US\$149 million and US\$71.5 million respectively. There is a large amount of informal trade in the region, therefore the accurate dates are difficult to come across. Nevertheless, the volume of imports from Benin was low for most of the past decade due to the instability in Cote d'Ivoire. As table 3.2 shows, only in 2011 imports from Benin started to increase.

3.2.3 Cote d'Ivoire's Trade Balance in WAEMU

Cote d'Ivoire's trade performance within the WAEMU region has shown positive results for the entire period of study. However, from 2010 to 2011 with partner country such as Benin there has been a decrease in the trade balance from US\$105.1 million to US\$87.5 million and an increase

in the following year from US\$87.5 million and US\$124 million (see table 3.3). This inconsistency in Cote d'Ivoire's trade balance is exhibited with most WAEMU partner countries apart from Burkina Faso and Mali. For example, Cote d'Ivoire's trade balance with Senegal and Togo decreased from US\$131 million to US\$38 million and from US\$87 million to US\$82 million respectively from 2012 to 2013. The following year, there was a rise in the trade balance of Cote d'Ivoire with the same partner country from US\$ 38 million and US\$ 82 million to US\$55 million and US\$75 million respectively. A closer look at how Cote d'Ivoire's trade balance dynamics evolved with its major trading partners in WAEMU gives a better picture of Cote d'Ivoire's regional trade. Table 3.3 shows Cote d'Ivoire's trade performance with its major trading partners in WAEMU. Countries, with which Cote d'Ivoire predominantly traded, such as Benin, Mali, Senegal and Burkina Faso are illustrated in Table 3.3 (see also appendix 5).

At a glance, Cote d'Ivoire's trade in WAEMU shows that the country is benefiting from its preferential trade agreements. A trade balance deficit is only observed in 2009 with Senegal as the trading partner (see table 3.3) and this could be the result of political instability the country went through. However, the quantity of exports is quite high in most member countries. Economic and political reforms, coupled with the demand for natural resources have positively affected the WAEMU countries and the GDP growth rate has been improving. Cote d'Ivoire's political stability can also be a factor for such growing opportunities in the region since it is the largest economy in WAEMU. Also, the extent to which Cote d'Ivoire benefitted or lost in its arrangement with WAEMU is empirically reviewed in this study.

Table 3. 3: Cote d'Ivoire's Trade Balance with Major Trading Partners in WAEMU (US\$ Millions)

DESCRIPTION	PERIOD						
<i>Exports</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Benin	104	96	110	97	137	66	71
Mali	325	266	226	241	295	357	368
Senegal	163	14	113	172	218	134	149
Togo	138	70	66	140	123	105	186
Burkina Faso	412	381	360	343	380	479	570
Guinee Bissau	8.3	6.7	30	61	56	30	22
Niger	55	59	52	46	63	53	86
<i>Imports</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Benin	20	13	4.9	9.5	13	12	12
Mali	1.05	0.87	1.09	0.3	11	7.01	6.1
Senegal	54	56	49	67	87	96	94
Togo	7.28	4.3	6.1	5.5	36	23	11
Burkina Faso	0.42	0.98	3.5	4.04	33	30	16
Guinee Bissau	0.0004	0.012	2	1.53	0.62	5.11	0
Niger	0.59	0.42	0.7	0.9	3.7	1.79	5
<i>Trade Balance</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Benin	84	83	105.1	87.5	124	54	59
Mali	323.95	265.13	224.9	240.7	284	349.9	361.9
Senegal	109	-42	64	105	131	38	55
Togo	130.72	65.7	59.9	134.5	87	82	175
Burkina Faso	411.5	380.02	356.5	338.6	347	449	554
Guinee Bissau	8.29	6.688	28	59.47	55.38	24.89	22
Niger	54.41	58.58	51.3	45.1	59.3	51.21	81

Source: Author's Own Calculations and UN COMTRADE Statistics (2016)

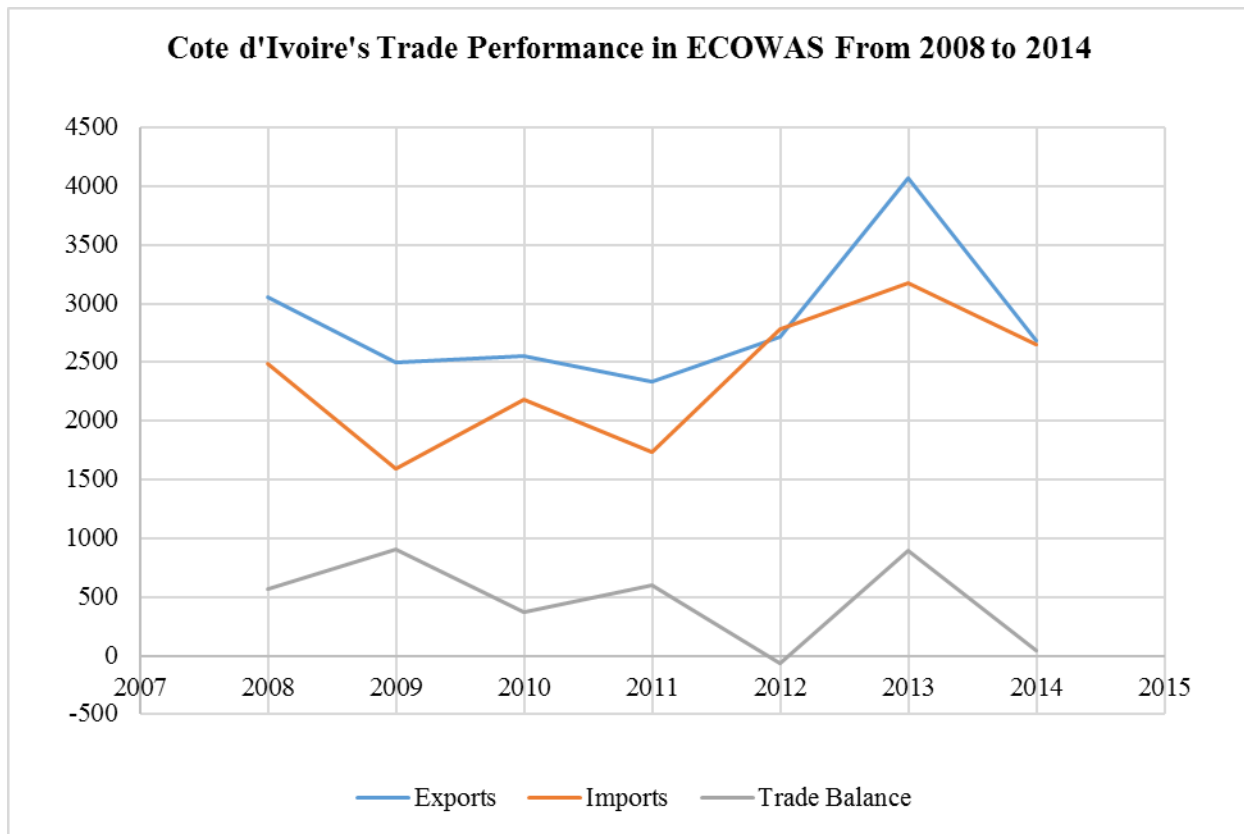
3.3 Cote d'Ivoire's Trade Performance in ECOWAS

Cote d'Ivoire is a founding member of ECOWAS since its inception. Hence, the country over the years has been actively involved with trade negotiation within the group. From this background, it becomes necessary to review using facts from UN COMTRADE, showing how Cote d'Ivoire's

trade has performed over years. This discussion assists in unpacking the major trading bloc for the country. This is one of the objectives of the study.

Figure 3.2 shows Cote d'Ivoire's trade performance in ECOWAS from 2008 to 2014. Cote d'Ivoire's export performance went through ups and downs during the period under review. Exports to the ECOWAS was low in 2008 worth a value of US\$3 billion but decrease in the following years to US\$2.5 billion (see figure 3.2). Exports' growth to ECOWAS remain constant from 2008 to 2009. In 2010 however, Cote d'Ivoire's exports decline to US\$2.4 billion. The subsequent years' exports to ECOWAS follow an upward trend, rising to US\$2.7 billion in 2011 to US\$4 billion in 2013. Exports from Cote d'Ivoire has maintained an upward trend for most part in the period of study only in 2014 exports decline to US\$2.7 billion. This again shows the country resilience despite being affected by a political instability. In 2013, Cote d'Ivoire exported value in trade with its ECOWAS partners was worth US\$4 billion, the highest for the period of study (see figure 3.2).

Figure 3. 2: Cote d'Ivoire's Trade Performance in ECOWAS from 2008 to 2014 (US\$ Million)



Source: UN COMTRADE Statistics and author's own calculation

In 2013, the country's exports went up to US\$4 billion. For a country that had recorded high export performance and is one of the economic powerhouse in the region one would think that the country had found its feet, and had an export capacity that had created a market for itself. In fact, during the last decade Cote d'Ivoire experienced large trade losses in the ECOWAS and WAEMU region. A study of Egoume and Nayo (2011) confirms this where they found that Cote d'Ivoire estimated trade losses in the WAEMU region from the period 1999 to 2007 was about US\$9 billion. It should, therefore, be expected that export earnings would continue to rise in the subsequent years given the potential an economy like Cote d'Ivoire possesses.

The export growth path was short-lived, as the country again witnessed a sharp decline in exports. Exports to ECOWAS however went down in 2014 to US\$2.7 billion (see Figure 3.2). In 2014, the country witnessed a reduction in exports value to ECOWAS worth US\$39.96 million. The country's export growth in ECOWAS has indeed been up and down. Following a political crisis that lasted almost a decade one would have expected exports to follow an upward trend at least during the recent years.

In 2008 imports from ECOWAS was US\$2.5 billion and decline to US\$1.6 billion in 2009. This drastic decline in imports could have been as a result of trade diversion the country experienced. In the following year Cote d'Ivoire's imports from ECOWAS experienced an increase from US\$1.6 billion to US\$2.1 billion. The imports bill went up from US\$2.8 to US\$3.1 billion in both years 2012 and 2013 respectively. For the subsequent years, the imports trend remained downward, imports to ECOWAS reduced from US\$3.1 billion in 2013 to US\$2.7 billion in 2014.

3.3.1 Cote d'Ivoire's Top Export Markets in ECOWAS

Cote d'Ivoire's major export destination in ECOWAS include: Nigeria, Ghana, Senegal, Burkina Faso, Benin, Togo, Guinee and Mali. Cote d'Ivoire's exports for years have been dominating these countries in ECOWAS.

Table 3. 4: Cote d'Ivoire Top Export Markets in ECOWAS (US\$ Million)

DESCRIPTION	PERIOD						
<i>Country/Year</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Nigeria	625	715	668	663	867	862	609
Senegal	163	146	113	172	218	134	149
Togo	138	70	66	140	123	105	186
Benin	104	96	110	97	137	66	71
Ghana	450	563	783	303	431	1851	457
Burkina Faso	412	381	360	343	380	479	570
Guinee	577	72	56	58	89	74	55
Sierra Leone	51	40	3.04	0.75	0.65	0.34	0.91
Guinee Bissau	8.3	6.7	30	61	56	30	22
Cape Verde	2.77	1.8	0.38	0.18	2.2	0.18	8.17
Gambia	62	35	26	27	19	15	13
Liberia	85	43	56	183	91	48	93
Niger	55	59	52	46	63	53	86
Mali	325	266	226	241	241	357	368

Source: UN COMTRADE Statistics (2016)

Over the years, the major top five export destinations for Cote d'Ivoire's exports were Nigeria, Ghana, Burkina Faso, Mali and Senegal. Cote d'Ivoire's exports to Nigeria grew from US\$625 million to US\$862 million from 2008 to 2013.

Nigeria was Cote d'Ivoire's major export destination in ECOWAS, with a staggering export receipt of US\$668 million in 2010. Exports in Nigeria grew from US\$625 million to US\$663

million which is about 6 per cent. Exports in Nigeria decline in 2011 and this could probably be the results of political turmoil the country incurred. The results show that the second export destination for Cote d'Ivoire's products is Ghana. Similar to Nigeria, Ghana exports grew from US\$450 million to US\$783 million which is a growth of about 74 per cent. Exports in Ghana decline in 2011 to US\$303 million. In 2013, the exports to Ghana was worth US\$1.851 billion the highest export for the period of study to any ECOWAS countries. Most of Cote d'Ivoire's exports go to Nigeria and Ghana, at the expense of other regional member states.

The UN COMTRADE (2015) reveals that Cote d'Ivoire's major exports to Nigeria in 2013 comprised refined petroleum product and palm oil— with an export value of US\$638 million and US\$63 million respectively whereas exports to Ghana on the other hand comprise special purpose ships which are 87% of the total exports to Ghana with a value of US\$1.54 billion.

The other largest export products from Cote d'Ivoire to Ghana are petroleum coke which an export value of US\$21.7 million and crude petroleum of export value of US\$15.4 million (UN COMTRADE, 2015).

Burkina Faso is the third largest export destination after Ghana in ECOWAS. Cote d'Ivoire's exports with Burkina Faso have witnessed ups and downs over the last decade. Exports to Burkina Faso has been on a decline from 2008 to 2011 with a value of US\$412 million to US\$343 million which is about 16.7 per cent decline (see table 3.4). Exports to Burkina Faso rose moderately to US\$380 million in 2012, then to US\$479 million and US\$570 million in 2013 and 2014, respectively. One obvious explanation for this increase in exports could be the improved political and economic climate Cote d'Ivoire has enjoyed over the last years. Cote d'Ivoire recorded a marginal increase in exports to Burkina Faso from 2011 to 2014, with export receipts of US\$343 million and US\$570 million which is about 66.18 per cent.

The UN COMTRADE (2015) shows that Cote d'Ivoire's major exports to Burkina Faso in 2013 were: refined petroleum, processed tobacco, minerals and chemicals fertilizer – generating export revenue of US\$126 million, US\$52 million and US\$18 million respectively.

Mali is Cote d'Ivoire's fourth export destination in ECOWAS. Exports to Mali has been on a decline from US\$325 million to US\$241 million 2008 to 2012 which is about 25 per cent reduction. In 2013 Exports to Mali picked up to US\$357 million and grew further to US\$368 million in 2014 (see table 3.4). According to UN COMTRADE (2015) Cote d'Ivoire's major exports to Mali include refined petroleum, palm oil, plastic lids, soap, soups and broths worth US\$152 million, US\$17.8 million, US\$14.5 million and US\$12.8 million respectively.

Senegal is Cote d'Ivoire's fifth major export market in ECOWAS after Mali, with exports valued at US\$149 million in 2014 (see table 3.4). Cote d'Ivoire's major exports to Senegal are palm oil, sawn wood, coffee and tea extracts and bananas with an export value of US\$52.3 million, US\$14.5 million, US\$11 million and US\$9.41 million respectively.

Togo is the sixth export market for Cote d'Ivoire in ECOWAS, with US\$186 million worth of exports in 2014. Cote d'Ivoire's major exports to Togo comprised: refined petroleum, palm oil, soap, beauty products and rolled tobacco with export value of US\$46.7 million, US\$6.06 million, US\$8.52 million, US\$6.07 million and US\$4.35 million respectively.

Guinee is the seventh export market in ECOWAS for Cote d'Ivoire's products. In 2008, Cote d'Ivoire exported goods worth US\$577 million the highest throughout the period of study. Cote d'Ivoire's major export to Guinee consisted of rubber footwear, plastic lids, refined petroleum, textile footwear, light pure woven cotton with export value of US\$19.8 million, US\$12.1 million, US\$4.48 million, US\$3.6 million and US\$2.85 million respectively.

The republic of Benin is the eight export market for Cote d'Ivoire in ECOWAS, with US\$71 million in 2014. Cote d'Ivoire's major exports to Benin are: Refined petroleum, light pure woven, soap, rice with an export value worth US\$27.4 million, US\$11.4 million, US\$3.27 million, US\$3.27 million and US\$2.67 million respectively.

3.3.2 Cote d'Ivoire's Top Import Sources from ECOWAS

As for its imports destinations, Cote d'Ivoire's major import sources are: Nigeria, Senegal, Ghana, Guinea, Benin, Togo, Liberia and Mali and Burkina Faso.

Nigeria plays an integral role in the Ivorian economy, as it is a major source of Cote d'Ivoire's imports. In 2013, Nigeria supplied goods worth US\$2.88 billion; representing 91 per cent of Cote d'Ivoire's total imports from ECOWAS (see Table 3.5). Cote d'Ivoire's major imports from Nigeria in 2013 included crude petroleum, rolled tobacco, chemical products and telephones to the values of US\$2.56 billion, US\$19.8 million, US\$15.1 million, US\$1.34 million, respectively. Crude petroleum is about 96 per cent of total export to Cote d'Ivoire and constitutes the main export from Nigeria to Cote d'Ivoire.

Table 3. 5: Cote d'Ivoire's Top Import Sources in ECOWAS (US\$ Million)

DESCRIPTION	PERIOD						
<i>Country/ Year</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Nigeria	2313	1434	2064	1570	2510	2886	2434
Ghana	47	35	15	20	67	71	67
Burkina Faso	0.42	0.98	3.56	4	33	30	16
Mali	1.05	0.87	1.09	0.38	11	7	6.16
Senegal	54	56	49	67	87	96	94
Benin	20	13	9.7	9.56	13	12	12
Guinee	26	22	15	16	22	44	2.38
Liberia	11	10	13	37	0.2	2	0.36
Sierra Leone	0.02	14	0.76	0.53	2.56	0.33	0
Guinee Bissau	0.0004	0.012	2	1.53	0.62	5.11	0

Gambia	0.05	0.1	0.03	0	0.016	0.06	0.22
Niger	0.59	0.42	0.7	0.9	3.7	1.79	5
Cape Verde	7.85	0.19	0.008	0	0	0.0002	0
Togo	7.28	4.3	6	5	36	23	11

Source: UN COMTRADE Statistics (2016)

Senegal is the second major import source from ECOWAS for Cote d'Ivoire. In 2013, Cote d'Ivoire imported goods worth US\$96 million. Senegal's major exports to Cote d'Ivoire in 2013 comprised non fillet frozen fish, salt, soups and broth, rolled tobacco and packaged medicaments worth a value of US\$54.3 million, US\$9.34 million, US\$9.6 million, US\$8.19 million and US\$3.57 million respectively.

The third major import source from ECOWAS for Cote d'Ivoire is Ghana. In 2013, Cote d'Ivoire imported commodities worth US\$71 million from Ghana. Ghana's major exports to Cote d'Ivoire in 2013 included excavation machinery, used clothing, light pure woven cotton, stranded aluminium wire, industrial fatty acid, oils and alcohol to the values of US\$10.2 million, US\$6.63 million, US\$6.38 million, US\$5.9 million and US\$5.17 million respectively.

Traditionally, Guinee is the fourth import source for Cote d'Ivoire's imports in ECOWAS. In 2013, Cote d'Ivoire's import bill was US\$44 million (see table 3.5). According to UN COMTRADE statistics, Cote d'Ivoire's major imports from Guinee in 2013 included non-fillet frozen fish which is about 97 per cent of total imports from Guinee to Cote d'Ivoire with import bills of US\$42 million.

Benin was the fourth source of imports for Cote d'Ivoire in ECOWAS, contributing US\$12 million in 2013 (see table 3.5). The major imports from Benin in 2013 comprised light pure woven cotton, soybean meal, other vegetables residues, valued at US\$7.18 million, US\$2.39 million and US\$2 million, respectively.

Burkina Faso is the fifth import source from Cote d'Ivoire, with imports valued at US\$30 million in 2013 (see table 3.5). Cote d'Ivoire's import bill from Burkina Faso included raw zinc, other pure vegetable oils, Bi-Wheel vehicle parts, motorcycles, mixed minerals and chemicals fertilizer and other oily seeds valued at US\$25.4 million, US\$7.63 million, US\$4.79 million, US\$2.73 million, US\$2.24 million and US\$1.68 million, respectively.

In 2013, according to UN COMTRADE statistics, Togo was the sixth source of imports for Cote d'Ivoire. Cote d'Ivoire imported goods worth US\$23 million from Togo. The composition of the import bill included refined petroleum, large construction vehicles, Bi-Wheel vehicle parts, raw plastic sheeting and delivery trucks, worth US\$16.7 million, US\$2.48 million, US\$1.99 million, US\$1.96 million, US\$1.58 million, respectively.

Other notable import sources from ECOWAS for Cote d'Ivoire, in descending order, based on 2013 figures, are: Mali, Guinee Bissau, Liberia and Niger, with imports valued at US\$7 million, US\$5.11 million, US\$2 million and US\$1.79 million, respectively (see table 3.5). The composition of Cote d'Ivoire's exports to ECOWAS is largely constituted by petroleum products, rubber and articles of rubber.

3.3.3 Cote d'Ivoire's Trade Balance in ECOWAS

Cote d'Ivoire's trade performance in ECOWAS over the years was characterized by a positive trade balance or trade surplus. A closer look at Cote d'Ivoire's trade performance with its major trading partners reflects a clear picture on how the country is performing with the rest of the ECOWAS member states. Based on 2012, Cote d'Ivoire's trade balance with its top trading partners was in the red (see Table 3.6). This was due to a larger increase in imports from ECOWAS member states compared to a relatively small rise in exports to ECOWAS. With Nigeria, in particular, Cote d'Ivoire registered a staggering US\$1.6 billion trade deficit. In 2012, trade balance declined with other trading partners: Ghana, Burkina Faso, Mali and Togo to US\$364 million, US\$347 million, US\$230 million, US\$87 million, respectively.

This is a huge and unsustainable figure for a country like Cote d'Ivoire with a GDP of US\$31 billion.

Table 3. 6: Cote d'Ivoire's Trade Balance with ECOWAS Countries (US\$ Millions)

Description	Period						
<i>Exports</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Nigeria	625	715	668	663	867	862	609
Senegal	163	146	113	172	218	134	149
Togo	138	70	66	140	123	105	186
Benin	104	96	110	97	137	66	71
Ghana	450	563	783	303	431	1851	457
Burkina Faso	412	381	360	343	380	479	570
Guinee	577	72	56	58	89	74	55
Sierra Leone	51	40	3.04	0.75	0.65	0.34	0.91
Guinee Bissau	8.3	6.7	30	61	56	30	22
Cape Verde	2.77	1.8	0.38	0.18	2.2	0.18	8.17
Gambia	62	35	26	27	19	15	13
Liberia	85	43	56	183	91	48	93
Niger	55	59	52	46	63	53	86
Mali	325	266	226	241	241	357	368
<i>Imports</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Nigeria	2313	1434	2064	1570	2510	2886	2434
Ghana	47	35	15	20	67	71	67

Burkina Faso	0.42	0.98	3.56	4	33	30	16
Mali	1.05	0.87	1.09	0.38	11	7	6.16
Senegal	54	56	49	67	87	96	94
Benin	20	13	9.7	9.56	13	12	12
Guinee	26	22	15	16	22	44	2.38
Liberia	11	10	13	37	0.2	2	0.36
Sierra Leone	0.02	14	0.76	0.53	2.56	0.33	0
Guinee Bissau	0.0004	0.012	2	1.53	0.62	5.11	0
Gambia	0.05	0.1	0.03	0	0.016	0.06	0.22
Niger	0.59	0.42	0.7	0.9	3.7	1.79	5
Cape Verde	7.85	0.19	0.008	0	0	0.0002	0
Togo	7.28	4.3	6	5	36	23	11
Trade Balance	2008	2009	2010	2011	2012	2013	2014
Nigeria	-1688	-719	-1396	-907	-1643	-2024	-1825
Ghana	403	528	768	283	364	1780	390
Burkina Faso	411.58	380.02	356.44	339	347	449	554
Mali	323.95	265.13	224.91	240.62	230	350	361.84
Senegal	109	90	64	105	131	38	55
Benin	84	83	100.3	87.44	124	54	59
Guinee	551	50	41	42	67	30	52.62
Liberia	74	33	43	146	90.8	46	92.64
Sierra Leone	50.98	26	2.28	0.22	-1.91	0.01	0.55

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Guinee Bissau	8.29	6.688	28	59.47	55.38	24.89	22
Gambia	61.95	34.9	25.97	27	18.984	14.94	12.78
Niger	54.41	58.58	51.3	45.1	59.3	51.21	81
Cape Verde	-5.08	1.61	0.372	0.18	2.2	0.1798	8.17
Togo	130.72	65.7	60	135	87	82	175

Source: Author's Own Calculations & UN COMTRADE Statistics (2016)

Appendix 5 provides a detailed analysis of Cote d'Ivoire's trade performance in ECOWAS and goes on to show the influence of Nigeria on Cote d'Ivoire's trade. Taking the trade balance as an indicator of trade performance, Cote d'Ivoire's trade surplus in ECOWAS reduced from US\$600 million in 2011 to a trade deficit of US\$ 68 million in 2012. However, without Nigeria, Cote d'Ivoire's trade deficit in ECOWAS would have turned into a positive trade balance of US\$1.5 billion. From this analysis, it is clear that Nigeria is the major contributor to Cote d'Ivoire's trade balance. It therefore follows that if Cote d'Ivoire is to address its balance of payment problems it must start by putting strategies aimed at restructuring its trade with Nigeria.

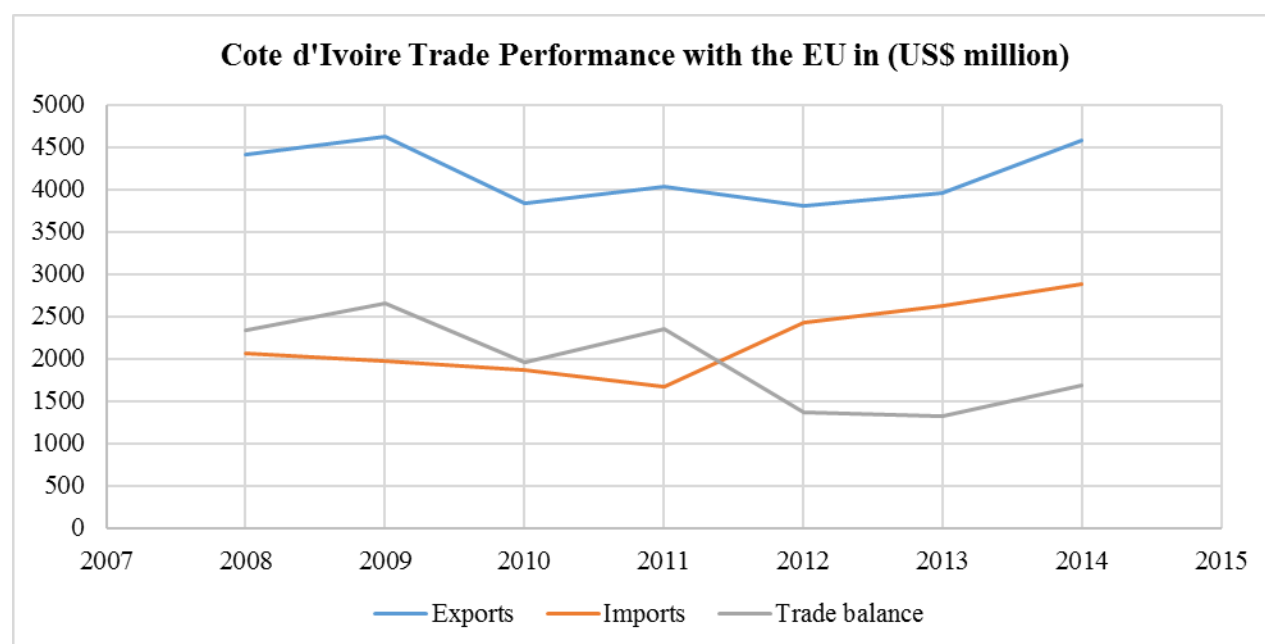
3.4 Cote d'Ivoire's Trade Performance in EU (28)

The European Union represented an important market for Cote d'Ivoire over the years. Indeed, the country is one of the EU main partner in West Africa as far as trade, partnership agreement and regional integration is concerned. Most of the technology used in the Ivorian industry is imported from the European Union Group of Twenty-eight (EU 28). The country has also experienced a political and military crisis, during this time the EU was the only major donor to provide technical and financial assistance to Cote d'Ivoire.

Cote d'Ivoire has also enjoyed a preferential trade agreement with the EU under the Lomé Convention and the Cotonou Agreement. Recently, the country initiated and signed interim EPAs to further its trade with the EU. While full EPA negotiations continue and Cote d'Ivoire is

yet to ratify the treaty, it is necessary to review how Cote d'Ivoire's trade has performed with the EU.

Figure 3. 3: Cote d'Ivoire's Trade with the EU (US\$ Million)



Source: UN COMTRADE Statistics (2016)

Figure 3.3 shows how Cote d'Ivoire's trade with the European Union has evolved from 2008 to 2014. In 2008, Cote d'Ivoire exported merchandise worth US\$4.4 billion. Cote d'Ivoire's exports to the European Union increased by 4.5 per cent to register export earnings of US\$4.6 billion in 2009. Cote d'Ivoire, as with other regional groupings, that is, WAEMU and ECOWAS, registered a decline in exports in 2010. The sharp decline in export to the European Union was due to the financial crisis most European Countries faced. The country exported goods to the value of US\$3.8 billion to the European Union (see Figure 3.3).

Cote d'Ivoire's exports increased the following year to US\$4 billion in 2011. The country's export to the European Union decline again in 2012, as the country recorded a US\$3.8 billion in export earnings. From 2013 to 2014 Cote d'Ivoire registered a marginal increase in exports to the

European Union. The country exported goods worth US\$3.9 billion and US\$4.5 billion in 2013 and 2014, respectively (see Figure 3.3).

Cote d'Ivoire's imports from the European Union were valued at US\$2.3 billion in 2008. Cote d'Ivoire went on to record a fall in imports from the European Union in the succeeding year. The country's import bill in 2009 was valued at US\$1.9 billion. The downward trend in import continued in the following years as the country registered imports of US\$1.8 billion and US\$1.6 billion in 2010 and 2011, respectively. From 2012 to 2013 Cote d'Ivoire's import bill went up by US\$2.4 billion and US\$2.6 billion, respectively. Cote d'Ivoire's imports from the European Union further increased by 9.5 per cent to US\$2.9 billion in 2014.

3.4.1 Cote d'Ivoire's Top Exports Markets to EU (28)

Traditionally, Cote d'Ivoire's major export destinations to the European Union in descending order are: Netherland, France, Germany, Italy, United Kingdom, Spain, Switzerland, Poland and Sweden.

The Netherland is Cote d'Ivoire's principal export destination. This is because the Netherland is the country's major buyer of Cocoa. The Netherland has dominated the European Union market as being the best export destination for Cote d'Ivoire, constituting at least 19.5 per cent for the period of study.

France, Cote d'Ivoire's former coloniser, has been an important export destination for Cote d'Ivoire over the years. According to the UN COMTRADE (2015) France has dominated the European Union, as being the best export market for Cote d'Ivoire, constituting at least 15 per cent of Cote d'Ivoire's exports. France do not dominate Cote d'Ivoire's trade as it once did. Cote d'Ivoire's exports to the France amounted to US\$ 1.36 billion in 2008. In 2009, exports went down to US\$1.12 billion. In 2010 and 2011, the country exported goods worth US\$716 million and US\$630 million, respectively.

The country witnessed a dramatic decline in exports to France in 2012, as the exports receipts amounted to a mere US\$502 million. In 2013 and 2014, Cote d'Ivoire's exports to France marginally went up to US\$788 million and US\$800 million, respectively (see table 3.7). In 2013, Cote d'Ivoire's major exports to the France were: cocoa paste, cocoa beans, bananas, processed fish, armored vehicles, cocoa butter and refined petroleum valued at US\$209 million, US\$108 million and US\$101 million, US\$96.6 million, US\$92.6 million, US\$77.4 million and US\$66.4 million respectively.

Table 3. 7: Cote d'Ivoire Top Export Markets to EU (28) (US\$ Millions)

DESCRIPTION	Period						
	2008	2009	2010	2011	2012	2013	2014
<i>Exports</i>							
Belgium	205	239	5.12	361	432	419	567
France	1360	1123	716	630	502	788	800
Germany	695	738	522	819	815	750	547
Netherland	1100	1430	1452	1300	950	966	1300
United Kingdom	278	259	280	127	258	239	230
Italy	380	328	320	313	240	208	312
Poland	95	97	114	139	119	136	153
Spain	224	191	253	181	209	210	245
Sweden	1.47	0.36	11	8	20	0.57	21
Switzerland	74	218	170	164	269	253	406

Source: UN COMTRADE Statistics (2016)

Germany is traditionally the third export destination for Cote d'Ivoire after France. In 2014, Cote d'Ivoire exported goods worth US\$547 million to Germany. In 2008, Cote d'Ivoire exported goods valued at US\$695 million to Germany. In 2009 Cote d'Ivoire's exports to Germany recorded significant gains to US\$ 738 million. Cote d'Ivoire's exports to Germany declined in 2010 and picked up in the subsequent years. In 2010 and 2011 exports to Germany was valued at US\$522 million and US\$819 million, respectively. The next three years, Cote d'Ivoire's exports to Germany marginally decline to US\$815 million, US\$750 million and US\$547 million respectively.

Italy is the fourth most important market for Cote d'Ivoire's exports. In 2008, Cote d'Ivoire's exported goods worth US\$380 million to Italy. Cote d'Ivoire's exports to Italy declined in 2009 to US\$328 million. The downward trend continued for the next 4 consecutive years, with an exports values of US\$320 million, US\$313 million, US\$240 million, US\$208 million respectively. In 2014, the country's exports to Italy shot up to US\$312 million. Cote d'Ivoire's traditional exports to Italy are: tobacco and precious stones and metals. In 2013, Cote d'Ivoire's major exports to Italy were: cocoa beans, processed fish, rubber, cocoa butter, raw cotton and veneer sheets valued at US\$108 million, US\$61.6 million, US\$27 million, US\$26.8 million, US\$16 million and US\$15.4 million, respectively.

Other important export markets for Cote d'Ivoire in the European Union are: United Kingdom, Spain, Switzerland, Poland and Sweden with exports in 2014 valued at US\$230 million, US\$245 million, US\$406 million, US\$153 million and US\$21 million, respectively (see table 3.7).

3.4.2 Cote d'Ivoire's Major Import Sources from the EU (28)

Over the years, France, Germany, Netherlands, Italy, Spain, United Kingdom, Belgium, Sweden, Switzerland and Poland have been the most important import sources for Cote d'Ivoire.

Table 3. 8: Cote d'Ivoire's Top Import Sources from (EU28) (US\$ Million)

DESCRIPTION	PERIOD						
<i>Country/Year</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Belgium	75	96	24	83	152	166	141
France	1000	991	931	791	1210	1310	1364
Germany	225	216	216	183	240	257	357
Netherlands	156	164	140	135	195	242	245
United Kingdom	159	103	119	73	172	172	192
Italy	161	153	169	156	187	162	238
Poland	20	15	23	21	25	28	29
Spain	194	182	154	150	190	201	233
Sweden	36	31	48	37	66	57	52
Switzerland	44	27	49	48	3.72	42	38

Source: UN COMTRADE Statistics (2016)

Although Cote d'Ivoire's imports from France went through ups and downs, the France has remained traditionally the major source of Cote d'Ivoire's imports over the years. In 2008, Cote d'Ivoire imported goods worth US\$ 1 billion from France. France's imports went down by 0.9 per cent in 2009 to US\$991 million. Cote d'Ivoire's imports to France reduced further to US\$931 million and US\$791 million in 2010 and 2011, respectively. The following year, Cote d'Ivoire's imports rebounded with a sharp increase of US\$1.21 billion which was about 34.6 per cent rise in imports. The upward trend continued in 2013 and 2014 with an import bill of US\$1.31 billion and US\$1.36 billion respectively.

Using the 2013 figures, Cote d'Ivoire's major imports from France were: wheat, packaged medicaments, telephones, cars, non-fillet frozen fish and planes, helicopter or spacecraft valued at US\$172 million, US\$132 million, US\$65.9 million, US\$57 million, US\$47.3 million and US\$39.4 million, respectively.

Germany is the second source of imports for Cote d'Ivoire in the European Union, after France. Cote d'Ivoire imported goods and services valued at US\$225 million from Germany in 2008. Cote d'Ivoire's import bill from Germany went down to US\$216 million in 2009. In 2010, Cote

d'Ivoire's imports to Germany remained at US\$216 million. The downward trend continued to 2011 where the country's import bill went down to US\$183 million. In 2012, Cote d'Ivoire's imports from Germany shot up to US\$240 million, and again rose to US\$257 million in 2013.

In 2014, Cote d'Ivoire's imports from Germany shot up again to US\$357 million. Using the 2013 figures, Cote d'Ivoire imported cars, industrial food preparation machinery, cranes and washing and bottling machines valued at US\$33.3 million, US\$13.1 million, US\$9.05 million, US\$7.16 million, respectively.

Netherland is the third major source of imports for Cote d'Ivoire from the European Union after Germany. From 2008 to 2010, imports to Netherland witnessed up and down. Imports from Netherland increased from US\$156 million to US\$164 million in 2008 and 2009, respectively.

In 2010, import bill from Netherland was valued at US\$140 million. The following year import declined to US\$135 million. Cote d'Ivoire's imports from Netherland picked up and witnessed an upward trend from 2012 to 2014 valued at US\$195 million to US\$245 million, respectively which is about 25.6 per cent increase.

Other important sources for Cote d'Ivoire's imports from the European Union in descending order are: Italy, Spain, United Kingdom, Belgium, Sweden, Switzerland and Poland with import bills in 2014 of US\$238 million, US\$233 million, US\$192 million, US\$141 million, US\$52 million, US\$38 million and US\$29 million, respectively.

3.4.3 Cote d'Ivoire's Trade Balance in EU (28)

Cote d'Ivoire over the years has enjoyed a trade surplus with the European Union. Table 3.9 illustrates Cote d'Ivoire's trade balance with the European Union from 2008 to 2014. In 2008, Cote d'Ivoire recorded a trade surplus of US\$2.3 billion with the European Union.

Table 3. 9: Terms of Trade between Cote d'Ivoire and the EU (US\$ Millions)

DESCRIPTION	PERIOD						
<i>Exports</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Belgium	205	239	5.12	361	432	419	567
France	1360	1123	716	630	502	788	800
Germany	695	738	522	819	815	750	547
Netherland	1100	1430	1452	1300	950	966	1300
United Kingdom	278	259	280	127	258	239	230
Italy	380	328	320	313	240	208	312
Poland	95	97	114	139	119	136	153
Spain	224	191	253	181	209	210	245
Sweden	1.47	0.36	11	8	20	0.57	21
Switzerland	74	218	170	164	269	253	406
<i>Imports</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Belgium	75	96	24	83	152	166	141
France	1000	991	931	791	1210	1310	1364
Germany	225	216	216	183	240	257	357
Netherlands	156	164	140	135	195	242	245
United Kingdom	159	103	119	73	172	172	192
Italy	161	153	169	156	187	162	238
Poland	20	15	23	21	25	28	29
Spain	194	182	154	150	190	201	233

Sweden	36	31	48	37	66	57	52
Switzerland	44	27	49	48	3.72	42	38
<i>Trade Balance</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Belgium	130	143	-18.88	278	280	253	426
France	360	132	-215	-161	-708	-522	-564
Germany	470	522	306	636	575	493	190
Netherlands	945	1266	1312	1165	754	724	1055
United Kingdom	119	156	161	54	86	67	38
Italy	219	175	151	157	53	46	74
Poland	75	82	91	118	94	108	124
Spain	30	9	99	31	19	9	12
Sweden	-34.86	-30.64	-37	-29	-46	-56.43	-31
Switzerland	30	191	121	116	265.28	211	368

Source: Author's Own Calculations & UN COMTRADE Statistics (2016)

Cote d'Ivoire's trade surplus increased further to US\$2.6 billion in 2009. The following year however, the country's trade surplus plummeted to US\$1.9 billion. In 2011, the country's trade surplus with the European Union rose spectacularly to US\$2.3 billion (see Table 3.9). Cote d'Ivoire witnessed a sharp fall in its trade surplus with the European Union in 2012 to US\$1.37 billion. In 2013, trade surplus with the European Union decreased again to US\$1.33 before recording a rise in the trade surplus of US\$1.69 billion in 2014.

3.5 Cote d'Ivoire's Trade Performance in the WTO

Cote d'Ivoire's trade performance with the World Trade Organisation Member States is reviewed in this section. The WTO is made up of 160 members, excluding Cote d'Ivoire, and

including the EU (28) as one member. The WTO group includes WAEMU, ECOWAS, EU and other important trade partners to Cote d'Ivoire, such as the United States of America, South Africa, India and China.

Table 3. 10: Cote d'Ivoire's Trade Performance with the WTO

Year	Exports (USD Millions)	Imports (USD Millions)	Trade Balance (USD Millions)
2008	9778	7883	1895
2009	10280	6959	3321
2010	10283	7849	2434
2011	11049	6719	4330
2012	10860	8769	2091
2013	12083	12482	-399
2014	12985	11177	1808

Source: UN COMTRADE Statistics (2016)

Table 3.10 shows how Cote d'Ivoire's trade performed in the WTO in the period between 2008 and 2014. In 2008, Cote d'Ivoire exported goods worth US\$9.77 billion to WTO Member States. Cote d'Ivoire's exports to the WTO went up to US\$10.28 billion in 2009. In 2011, Cote d'Ivoire's exports to WTO continue to grow as the country recorded an export value of US\$11.09 billion. However, in 2012 Cote d'Ivoire's exports went down to US\$10.86 billion, to the WTO (see Table 3.10).

In 2013, Cote d'Ivoire's exports shot up by 11.26 per cent to US\$12.08 billion. Cote d'Ivoire's exports continued on an upward trend in 2014 to US\$12.98 billion.

Cote d'Ivoire's import bill witnessed ups and down during the period under review. In 2008, the country's imported bill recorded US\$7.88 billion. The import bill fell marginally to US\$6.95 billion in 2009 before bouncing to US\$7.84 billion in 2010. In 2011, the country's imports to WTO fell again to US\$6.71 billion. Cote d'Ivoire maintained the upward momentum in its imports to the WTO in 2012 and 2013 where the country's imports were valued at US\$8.76 billion and US\$12.48 billion, respectively. In 2014, the country's imports fell to US\$11.17 billion.

3.5.1 Cote d'Ivoire's Top Export Markets

Cote d'Ivoire's major export destinations in the global economy in descending order are: Netherlands, United States of America, South Africa, France, Nigeria, Burkina Faso, Belgium, Germany, India, Ghana, Malaysia and Canada.

Table 3. 11: Cote d'Ivoire's Top Export Markets in 2014

Importer	Exported Value USD Millions in 2014	Trade Balance USD Millions in 2014	Share in Cote d'Ivoire Exports (%)	Export Growth in Value (2010 -2014)
World	12,985.00	1,808.00	100	6
Netherlands	1300	1,055.00	10.01	-2.72
USA	1090	704	8.39	0.7
South Africa	893	771	6.87	68.79
France	800	-564	6.16	2.81
Nigeria	609	-1825	4.69	-2.28
Burkina Faso	570	554	4.38	12.17
Belgium	567	426	4.36	224.39
Germany	547	190	4.21	1.17
India	532	-24	4.09	14.92
Ghana	457	390	3.51	-12.59
Malaysia	359	312	2.76	23.36
Canada	356	326	2.74	10.01

Source: UN COMTRADE Statistics (2016)

On average, for the period from 2010 to 2014, Cote d'Ivoire's exports increase by 6 per cent (UN COMTRADE, 2015). Cote d'Ivoire's major export destination globally is Netherlands. In

2014, Cote d'Ivoire exported goods worth US\$1.3 billion to Netherlands; representing 10.01 per cent of the country's total exports (see Table 3.11). Cote d'Ivoire's exports to Netherlands between 2010 and 2014, shrunk by 2.72 per cent.

Cote d'Ivoire's second major export destination in 2010 after Netherlands is the United States of America. In 2014, Cote d'Ivoire exported goods valued at US\$1.09 billion constituting 8.39 per cent of Cote d'Ivoire's total exports. Major exports in 2014 were cocoa, mineral fuels and oils, and rubber worth US\$814 million, US\$165.1 million and US\$74.8 million, respectively. The United States of America is a major buyer of Cote d'Ivoire's cocoa. Over the period of 2010 to 2014, Cote d'Ivoire's exports to the United States of America grew by 0.7 per cent.

South Africa is the third export market for Cote d'Ivoire in the global economy. In 2014, Cote d'Ivoire exported goods valued at US\$893 million to South Africa, representing a sober 6.87 per cent of Cote d'Ivoire's total exports. South Africa is gradually becoming a major importer of Cote d'Ivoire's products. Over a five-year period, that is, from 2010 to 2014, Cote d'Ivoire's exports to South Africa grew by 68.79 per cent. Major exports to South Africa as at 2014 were: ships, pearls and precious stones, nuclear reactors and cocoa with export receipts of US\$566.3 million, US\$283.2 million, US\$15.1 million and US\$13.6 million, respectively.

France is the fourth largest export market after South Africa for Cote d'Ivoire. Traditionally, before the souring of relations between France and Cote d'Ivoire, France used to be the first largest export market for Cote d'Ivoire, followed by Netherlands.

According to the UN COMTRADE (2015), Cote d'Ivoire's exports to France were US\$800 million, representing 6.16 per cent of Cote d'Ivoire's total exports in 2014. In 2009, exports went down to US\$ 1.12 billion. In the three consecutive years, thus 2010, 2011 and 2012, the country exported goods to France witnessed a downward trend with exports value worth US\$716 million and US\$630 million, and US\$502 million, respectively before bouncing to US\$788 million in 2013. In 2014, Cote d'Ivoire's exports to the France shoot up to US\$800 million (see Table 3.11).

Cote d'Ivoire's exports to France rose by 2.83 per cent over the period of 2010 to 2014 demonstrating the diplomatic relations between Cote d'Ivoire and France are gradually improving to where it used to be.

Other notable export destination for Cote d'Ivoire in descending order, based on the 2014 figures are: Nigeria, Burkina Faso, Belgium, Germany, India, Ghana, Malaysia and Canada, with export receipts of US\$609 million, US\$570 million, US\$567 million, US\$547 million, US\$532 million, US\$457 million, US\$359 million and US\$356 million, respectively. Cote d'Ivoire lost a significant market in Netherland, Nigeria and Ghana, as exports over 2010 – 2014 period dropped by 2.72 per cent, 2.28 per cent, and 12.59 per cent, respectively (see Table 3.11).

3.5.2 Cote d'Ivoire's Top Import Sources from WTO

Cote d'Ivoire's major import sources from the global economy in descending order are: Nigeria, France, China, Bahamas, India, United States, Germany, Netherlands, Belgium, South Africa, Ghana and Malaysia.

Nigeria is the first source of Cote d'Ivoire's imports, reaffirming the importance of Nigeria for the Ivorian economy. In 2014, Cote d'Ivoire imported goods valued at US\$2.34 billion from Nigeria, representing 21.77 per cent of Cote d'Ivoire's total imports. Over the five-year period, that is, from 2010 to 2014, Cote d'Ivoire's imports grew by 4.2 per cent. Cote d'Ivoire's imports from Nigeria traditionally are: mineral fuels and oil, tobacco, chemical products, essential oils and perfumes, and electrical and electronic equipment.

Using the 2014 figures, Cote d'Ivoire imported mineral fuels and oils, Tobacco, chemical products, essential oils and perfumes from Nigeria valued at US\$2.4 billion, US\$21.1 million, US\$10.9 million and US\$4.9 million, respectively.

Table 3. 12: Cote d'Ivoire's Major Import Source from WTO

Exporter	Imported Value USD Millions in 2014	Trade Balance USD Millions in 2014	Share in Cote d'Ivoire Imports (%)	Import Growth in Value (2010 -2014)
World	11,177.00	1,808.00	100	9.23
Nigeria	2434	-1825	21.77	4.2
France	1364	-564	12.20	10.01
China	980	837	8.76	15.74
Bahamas	612	-603	5.47	397.37
India	556	-24	4.97	40.17
USA	386	704	3.45	13.08
Germany	357	190	3.19	13.38
Netherlands	245	1055	2.19	15.01
Belgium	141	426	1.26	55.68
South Africa	122	771	1.09	-2.68
Ghana	67.00	390	0.59	45.37
Malaysia	47	312	0.42	6.16

Source: UN COMTRADE Statistics (2016)

France was the second source of Cote d'Ivoire's imports. France no longer dominates Cote d'Ivoire's trade as it once did. In 2014, Cote d'Ivoire imported goods valued at US\$1.36 billion from France, representing 12.2 per cent of Cote d'Ivoire's total imports. Over the five-year period, that is from 2010 to 2014, Cote d'Ivoire's imports grew by 10.01 per cent. Cote d'Ivoire's imports from France are traditionally: cereals, vehicles, electrical and electronic

equipment, pharmaceutical products, nuclear reactors and machinery, articles of iron, aircraft and parts, and essential oils and perfumes.

Using the 2014 figures, the top imports from France to Cote d'Ivoire were cereals, vehicles, Nuclear reactors, electrical equipment and pharmaceutical products valued at US\$176.7 million, US\$158.8 million, US\$135.7 million, US\$133.8 million and US\$132.8 million, respectively.

China was the third source of Cote d'Ivoire's imports, reaffirming the importance of China for the Ivorian economy. In 2014, Cote d'Ivoire imported goods valued at US\$980 million from China, representing 8.76 per cent of Cote d'Ivoire's total imports. Over the five-year period, that is, from 2010 to 2014, Cote d'Ivoire's imports grew by 15.74 per cent. Cote d'Ivoire's major imports from China are traditionally: tobacco, electric and electronic equipment, nuclear reactor and machinery, iron and steel, fish and crustaceans, miscellaneous and chemical products, articles of iron, ceramic products, and plastics.

Using the 2014 import figures, Cote d'Ivoire imported electric and electronic equipment, machinery, miscellaneous chemical products, vehicles, iron and steel, fish and crustaceans, articles of iron, and plastics from China, valued at US\$142.9 million, US\$127.6 million, US\$95.4 million, US\$77.4 million, and US\$72.2 million, US\$41.5 million, US\$40.4 million, and US\$28 million, respectively.

The Bahamas is the fourth import source for Cote d'Ivoire, with an import value of US\$612 million in 2014; constituting 5.47 per cent of Cote d'Ivoire's total imports (see Table 3.12). Cote d'Ivoire's imports from the Bahamas over a five-year period, that is, from 2010 to 2014, grew by 397 per cent. This shows that the Bahamas is a growing import destination for Cote d'Ivoire. Cote d'Ivoire's major imports from the Bahamas in 2014 included ships, boats and other floating structures valued at US\$612 million.

Other visible important import sources for Cote d'Ivoire in descending order are: India, the United States of America, Germany, Netherlands, Belgium, South Africa, Ghana and Malaysia, with import bills of US\$556 million, US\$386 million, US\$357 million, US\$245 million, US\$141

million, US\$122 million, US\$67 million and US\$47 million, respectively. Over the 2010 to 2014 period, Cote d'Ivoire witnessed a positive growth of its imports from India, the United States of America, Germany, Netherlands, Belgium, Ghana and Malaysia with growth rates of 40.17 per cent, 13.08 per cent, 13.38 per cent, 15.01 per cent, 55.68 per cent, 45.37 per cent, and 6.16 per cent respectively.

Cote d'Ivoire's imports from South Africa went down by 2.68 per cent over the five-year period, which is, 2010 to 2014 (see Table 3.12). Overall, Cote d'Ivoire's trade is expanding and diversifying. Several new suppliers provide Cote d'Ivoire's imports as opposed to only France which used to be Cote d'Ivoire's main supplier.

3.5.3 Cote d'Ivoire's Trade Balance Performance in the WTO

Cote d'Ivoire's total exports exceeded total imports by US\$1.9 billion in 2014. In most previous years, and in 2014, Cote d'Ivoire registered a positive trade balance with its major trading partners – only France, Nigeria, China and India recorded a negative trade balance. (see Table 3.13).

A closer look at Cote d'Ivoire's trade balance with its major trading partners within the context of the WTO from 2008 to 2014, shows that Cote d'Ivoire managed to make a trade surplus with the Germany, USA, Netherlands and Ghana, throughout the period under consideration. Cote d'Ivoire's trade balance with India has been positive from 2008 to 2012. Only recently, the country's trade balance with India showed a trade deficit.

It is also worth noting that Cote d'Ivoire's trade even with the WTO is concentrated within a few countries. Appendices 6 and 7 provide Cote d'Ivoire's export destinations and import sources, respectively. It is interesting to note that countries such as Nigeria, the largest economy in Africa followed by South Africa the second largest economy in Africa are the 5th and 3rd exports destination to Cote d'Ivoire in the WTO, respectively (see Table 3.11). In terms of imports Nigeria and South Africa, both occupied the 1st and the 10th position in the WTO as far as Cote d'Ivoire's imports sources are concerned (see Table 3.12).

Table 3. 13: Cote d'Ivoire's Terms of Trade with its Top Trading Partners in the WTO (US\$ Millions)

Description	Period						
Exports	2008	2009	2010	2011	2012	2013	2014
Belgium	205	239	5.12	361	432	419	567
Germany	695	738	522	819	815	750	547
Netherlands	1100	1430	1452	1300	950	966	1300
USA	945	800	1060	1318	877	741	1090
France	1360	1123	716	630	502	788	800
Nigeria	625	715	668	663	867	862	609
South Africa	39	26	110	605	396	355	893
Ghana	450	563	783	303	431	1851	457
India	178	281	305	281	360	251	532
China	45	54	79	116	109	152	143
Imports	2008	2009	2010	2011	2012	2013	2014
Belgium	75	96	24	83	152	166	141
Germany	225	216	216	183	240	257	357
Netherlands	156	164	140	135	195	242	245
USA	209	228	236	128	254	292	386
France	1000	991	931	791	1210	1310	1364
Nigeria	2313	1434	2064	1570	2510	2886	2434
South Africa	89	98	136	84	124	111	122
Ghana	47	35	15	20	67	71	67

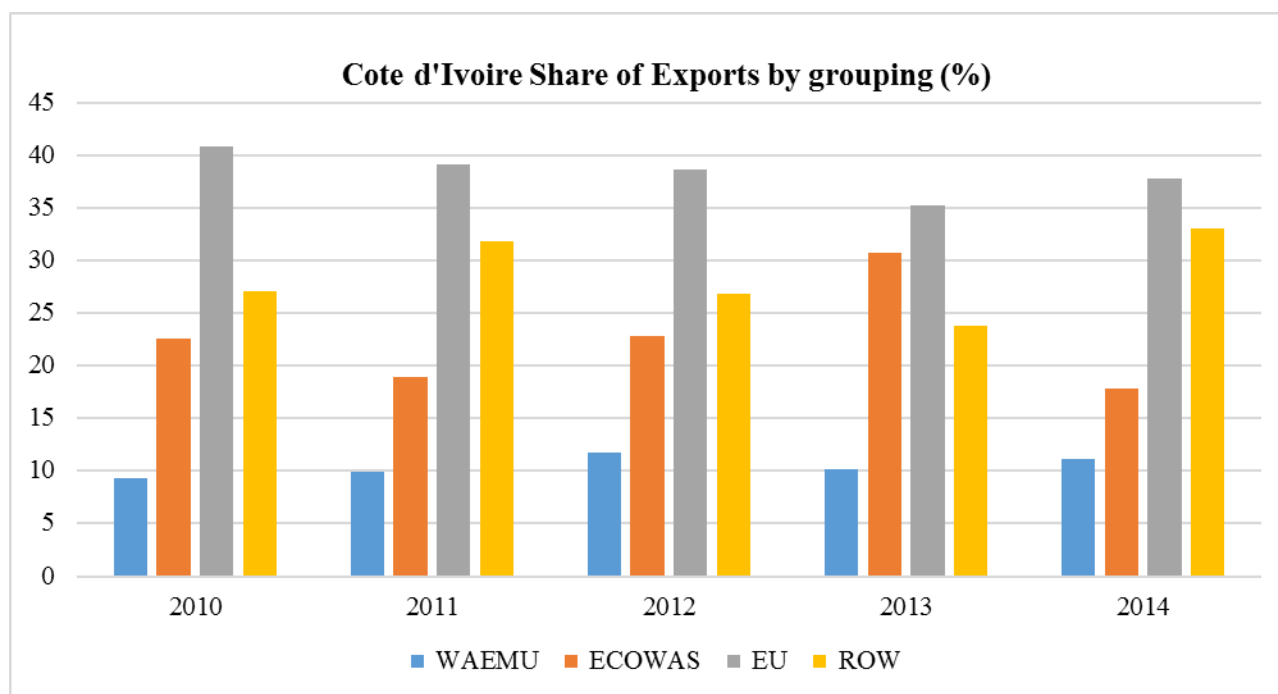
India	131	128	144	179	389	321	556
China	524	501	546	461	716	1424	980
Trade Balance	2008	2009	2010	2011	2012	2013	2014
Belgium	130	143	-18.88	278	280.00	253	426.00
Germany	470	522	306	636	575	493	190
Netherlands	945	1266	1312	1165	754	724	1055
USA	736	572	824	1190	623	449	704
France	360	132	-215.00	-161	-708	-522	-564
Nigeria	-1688	-719	-1396	-907	-1643	-2024	-1825
South Africa	-50	-72	-26	521	272	244	771
Ghana	403	528	768	283	364	1780	390
India	47	153	161	102	-29	-70	-24
China	-479	-447	-467	-345	-607	-1272	-837

Source: Author's Own Calculations & UN COMTRADE Statistics (2016)

3.6 Cote d'Ivoire's Export Destinations by Grouping

After having reviewed how Cote d'Ivoire's exports have performed across the major trading bloc, it becomes necessary to come up with a summary of the export destinations for Cote d'Ivoire's products. This analysis should assist in deriving the major trading partner for Cote d'Ivoire, based on exports. And this is one of the objectives of this study.

Figure 3. 4: Cote d'Ivoire's Export Destination



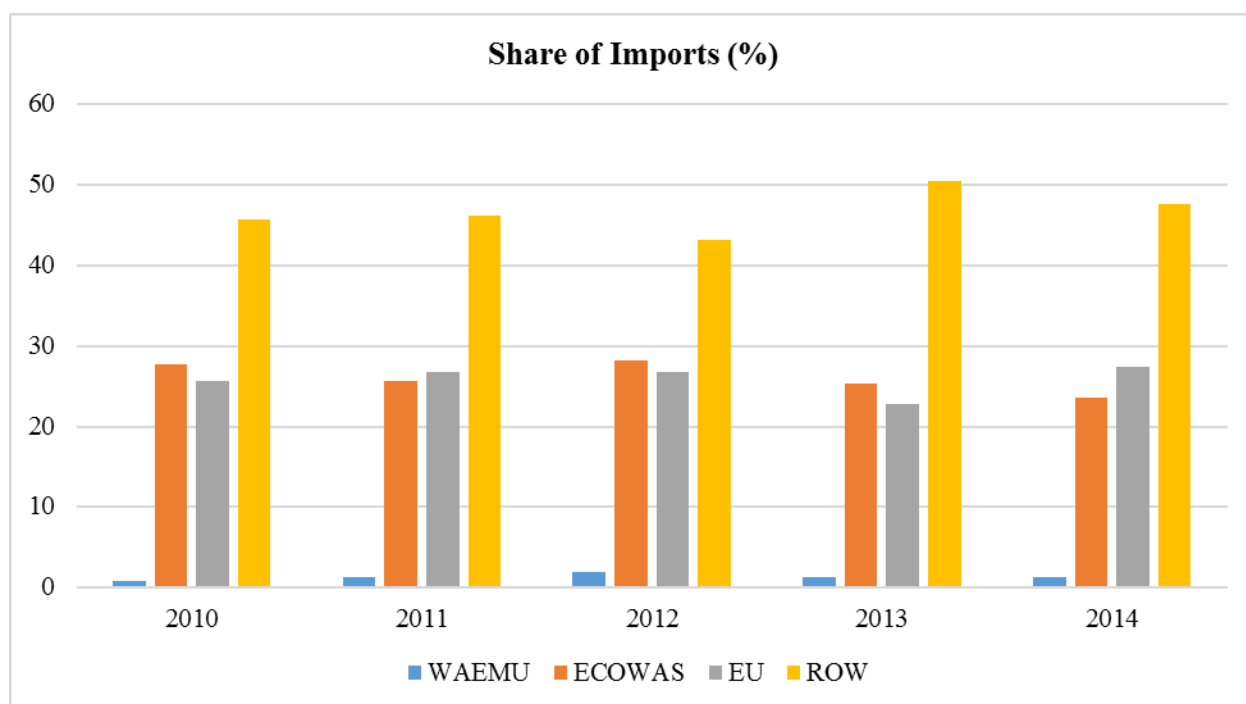
Source: Author's Own Calculations and UN COMTRADE (2016)

The European Union is the major export destination for Cote d'Ivoire, with its share of exports to total exports ranging from 41 per cent in 2010 to 38 per cent in 2014 (see Figure 3.4). The rest of the World (ROW) market dominated, as the second export destination in 2010, 2011, 2012, and 2014 with exports' share of 27 per cent, 32 per cent, 26 per cent, and 33 per cent respectively; but it went on to be overtaken by the ECOWAS in 2013 with an export's share of 31 per cent (see Figure 3.4). The ECOWAS market, irrespective of its closeness to Cote d'Ivoire than the EU and ROW offers less scope for Cote d'Ivoire's exports. ECOWAS is the third export destination for Cote d'Ivoire. The share exports in the ECOWAS market to the total exports in 2010, 2011, 2012, and 2014 was valued at 22 per cent, 19 per cent, 23 per cent and 18 per cent, respectively. The WAEMU market recorded the lowest export's share throughout the period under consideration, that is between 9 per cent and 11 per cent of total export's share between 2010 to 2014.

3.7 Geographical Sources of Cote d’Ivoire’s Imports by Grouping

Again, discussion in this section partially addresses the question that seeks to investigate Cote d’Ivoire’s major trade grouping.

Figure 3. 5: Cote d’Ivoire’s Major Import Sources by Grouping



Source: Author’s Own Calculations and UN COMTRADE Statistics (2016)

This again shows that the European Union and France do not longer dominates trade in Cote d’Ivoire as they once did. This is especially true because new emerging countries such as Nigeria, China, India, South Africa, the Bahamas and Malaysia constitute an important market for Cote d’Ivoire’s imports (see Table 3.12). Hence, the ROW constitutes the primary source of imports for Cote d’Ivoire.

Cote d’Ivoire’s second import source is shared between ECOWAS and the European Union. ECOWAS was the second import source for Cote d’Ivoire in 2010, 2012 and 2013 with a share

of 28 per cent, 29 per cent and 27 per cent, respectively. However, in 2011 and 2014, the European Union was the second import source for Cote d'Ivoire with 27 per cent and 28 per cent of the country's total import share, respectively.

Although Cote d'Ivoire enjoys close economic ties with countries within the WAEMU region, the share of imports from WAEMU show lower contributions to Cote d'Ivoire's import basket. This could be as a result of poor roads, lack of heavy trucks.

Harsch (2003) confirmed this when he found that Burkina Faso's animal product export to Cote d'Ivoire fell by 65 per cent because of the Ivorian crisis. In 2010, Cote d'Ivoire's imports from WAEMU constituted 0.85 per cent of its total imports. In 2014 Cote d'Ivoire's imports increased to 1.28 per cent. The lower contributions to Cote d'Ivoire's import basket was as a result of economic disturbances caused by the Ivorian conflict. This is a worrying result, considering the potential the WAEMU region offers. Goretti and Weisfeld (2008) found that trade in WAEMU can be enhanced through less cumbersome procedures and even application of the rules.

3.8 Composition of Cote d'Ivoire's Trade

This section examines what constitutes Cote d'Ivoire's imports and exports. The purpose of this section is to review whether Cote d'Ivoire's exports and imports are made up of primary or manufactured commodities.

3.8.1 Composition of Cote d'Ivoire's Exports

Cote d'Ivoire's exports over the years have been dominated by primary products. Table 3.14 shows that in 2014, export of Cocoa, and mineral products alone constituted 55.4 per cent of its total exports.

Table 3. 14: Composition of Exports by SITC Section

Composition (%)	2010	2011	2012	2013	2014
Cocoa and cocoa preparation	36.89	38.18	31.19	25.62	35.38
Mineral fuels, oils, distillation products	23.3	24.55	29.35	23.97	20
Edible fruits, nuts	4.74	4.09	4.84	14.05	7.69
Pearls, precious stones, metals	1.78	5.21	5.88	6.31	5.4
Rubber and articles thereof	6.65	10	7.42	6.31	4.7
Ships, boats	7.05	0.001	0.05	14.05	4.48
Cotton	1.39	1.5	22.95	2.5	2.75
Vehicles other than railway, tramway	0.48	0.53	0.32	2.06	2.25
Animal, vegetable fats and oils	1.81	2.8	2.78	1.76	1.82
Wood and articles of Wood	2.29	1.86	1.9	1.73	1.72
Commodities and transactions not classified elsewhere	13.62	11.29	13.93	1.67	13.76
Total	100	100	100	100	100

Source: UNCTAD Data Bases (2015)

This outcome is in line with the observations from the African Bank Development Group (2013), whose report noted that Cote d'Ivoire's agricultural sector contributed to 30 per cent of the country's gross domestic product. The export diversification in Cote d'Ivoire appears to be a problem.

Essoh (2014), also came up with the same results where he noted that the cocoa industry alone represented 40 per cent of the country's total export. Cote d'Ivoire relies greatly onto cocoa production, hence any impact on the market affects all the other economic sectors. The Ivorian economy have always been highly concentrated, with only a few commodities such as Cocoa and Coffee generating the bulk of the export revenues.

This situation of exports being biased towards primary products raises serious concerns about the country's ability to benefit from trade liberalisation, considering that the export of raw materials brings in low earnings.

3.8.2 Composition of Cote d'Ivoire's Imports

In contrast to the composition of exports, Cote d'Ivoire's imports are made up of finished products. Taking 2014 as a benchmark, Cote d'Ivoire's imports were dominated by mineral fuels, nuclear reactors and machinery, vehicles, and ships which constituted 46 per cent of the total imports (see Table 3.15).

Table 3. 15: Composition of Imports by SITC Section

Composition (%)	2010	2011	2012	2013	2014
Minerals fuels, oils, distillation products	24.36	28.36	30.61	25.6	25.89
Nuclear reactors, boilers, machinery	7.86	6.47	7.62	6.51	8.68
vehicles other than railway, tramway	5.59	4.82	5.23	4.52	5.73
ships, boats	10.84	0.03	4.1	21.6	5.68
Cereals	7.87	11.29	9.31	5.5	5.62
Electrical, electronic equipment	5.39	4.43	4.59	4.11	4.51
Plastic and articles thereof	3.52	4.16	3.32	3.05	3.77
Fish, crustaceans, aquatic invertebrates	3.62	4.92	3.40	2.9	3.49
Pharmaceutical products	3.03	3.97	2.98	2.17	3.46
Articles of iron or steel	2.14	2.01	1.97	1.73	3.11
Commodities and transactions not classified elsewhere	25.79	29.54	26.88	22.3	30.04
Total	100	100	100	100	100

Source: UNCTAD Databases (2015)

3.9 Summary

Cote d'Ivoire's trade performance, trends and developments with its trading partners have been reviewed in this chapter. Of specific interest, Cote d'Ivoire's exports and imports dynamics with WAEMU, ECOWAS, WTO and EU were discussed. The purpose of this discussion was to explore whether Cote d'Ivoire has benefited from its trade agreements.

Overall, Cote d'Ivoire's foreign trade performance with its trading partners has not lived up to its expectations. The results show that Cote d'Ivoire's trade with ECOWAS and the WAEMU members has been unstable and low especially for the latter. The country failed to take advantage of the market access created by liberalisation. This is supported by Egoume and Nayo (2011) who found that in the presence of instability in Cote d'Ivoire, lost trade in Cote d'Ivoire is estimated at around 40 per cent of its potential trade within the WAEMU. They further noted that Cote d'Ivoire's exports to WAEMU declined from 55 per cent to 50 per cent due to the instability Cote d'Ivoire incurred during the period 2000 and 2007, respectively. WAEMU's successes and failures will have a big impact on the West African integration process because all eight countries also belong to the ECOWAS.

Cote d'Ivoire's trade with ROW has also been unstable. One explanation of this instability could be attributed to the fluctuation in trade with countries like China and the United States which are important partners as far as the ROW group is concerned. Cote d'Ivoire's trade with the EU however, has enjoyed a relatively stable growth pattern. One possible explanation could be the fact that Cocoa's exports which is Cote d'Ivoire's main crop exports to the EU has not been affected by the political turmoil the country faced.

Cote d'Ivoire's major trading partners include Nigeria, Ghana, South Africa, Netherlands, France, China, the United Kingdom, Belgium, Germany, the United States of America, and India. It worth noting that Nigeria and South Africa were outstandingly Cote d'Ivoire's major import partner, being the top 10 import source for Cote d'Ivoire in 2014. In the trading blocs, EU is Cote d'Ivoire's major trading partner, followed by the ROW, ECOWAS and WAEMU.

The next chapter will discuss both the theoretical literature and the empirical literature on trade liberalisation. The theoretical literature this study explores will include trade creation, trade diversion, the economies of scale argument, the static and dynamic effects of a customs union, the revenue and welfare effects of a customs union, and other policy effects of trade integration. The empirical literature explores two approaches in the trade literature, whereby the impacts of regional trade agreements (RTA) are assessed. One is the *ex post* approach that assesses the impact of RTAs by using a simple investigation of intra-regional trade pattern following the formation of RTA. The other is the *ex ante* approach that is undertaken at an earlier date before the formation of RTA.

In the following chapter, the researcher provides a general review of some existing findings that draw heavily on the studies of past researchers.

CHAPTER FOUR

LITERATURE REVIEW

4.1 Introduction

This section discusses both the theoretical literature on trade policy and the empirical literature on trade liberalisation. The theoretical literature that this study explores includes trade creation, trade diversion, as well as the economies-of-scale argument, the static and dynamic effects of a customs union, the economic integration theory, the revenue and welfare effect of a custom union, and any other policy effects of trade integration. The empirical literature explores two approaches in the trade literature whereby the impacts of regional-trade agreements (RTA) are assessed.

One is the *ex post* approach that assesses the impact of RTAs by using a simple investigation of the intra-regional trade pattern following the formation of RTA. The other is the *ex ante* approach that was implemented at an earlier date – before the formation of RTAs. A review of some of the existing findings that draw heavily on the studies of past researchers is provided. The main focus of the literature review discussed in this chapter is to provide a framework for the objectives to be addressed in this study.

The chapter is structured as follows: Section 4.2 outlines the theoretical literature. Subsection 4.2.1 examines trade creation. Subsection 4.2.2 discusses the trade-diversion effects of trade liberalisation, which is one of the objectives of this study. Subsection 4.2.3 discusses the static and dynamic benefits of a customs union. Subsection 4.2.4 examines the revenue and welfare effects of a customs union. Subsection 4.2.5 discusses the economies-of-scale argument. Section 4.3 examines the empirical literature. Section 4.4 summarises Chapter Four.

4.2 The Theoretical Literature

The theoretical literature aimed at addressing the research objective is examined in this section. This literature includes trade creation, trade diversion, the static and dynamic benefits of a customs union, the revenue and welfare effects of a customs union, the economies-of-scale arguments, as well as the other policy effects of trade liberalisation.

4.2.1 Trade Creation

The term trade creation was first introduced by Viner (1950), who says that trade creation occurs when more efficient or lower-cost producers in any country in a RTA displace the less efficient or higher-cost producers in the same RTA; and consumers, therefore, benefit from the lower prices.

In standard analysis, when countries decide to embark on a free trade agreement, trade creation occurs when the removal of tariffs changes the prices of imported goods, such that less efficient domestic production is replaced by imports from members of the free trade area whose products are now cheaper with the tariff's removal. Milner et al (2005) explain, "Trade creation usually describes the displacement of less efficient home production by globally efficient extra-regional production."

A Study by Gauto (2012) illustrates the fact that as many producers struggle to get the greatest benefit associated to the regional market, only the most efficient will succeed through providing consumers welfare benefits, cheaper commodities or imports. This is translated by the cheap imports in Cote d'Ivoire from ECOWAS countries, such as Ghana, Nigeria, among others.

Corcos, del Gatto, Mion, and Ottaviano (2012) find that trade liberalisation results in richer availability of products varieties, tougher competition and weaker market power of firms. This also leads to better exploitation of economies of scale.

With the introduction of an FTA, producers within the region would have additional market access, which they would now penetrate, if they are more efficient than the producers of the host

country. FTAs and customs unions that are trade-creating enhance efficiency, and are therefore, beneficial to the member countries and the world (Bhagwati and Panagariya, 1996; Urata and Okabe, 2010).

Trade creation results in welfare gains if higher-cost domestic production is replaced by cheaper imports from one/or all of the countries in the RTA. A regional trade agreement like ECOWAS FTA, which comes in the form of an FTA would result in trade creation by lowering the prices of imports from the members of the FTA, for example, Burkina Faso into another FTA member like Cote d'Ivoire, thereby displacing production in the latter country (Cote d'Ivoire in this case). This situation leads to deindustrialisation in Cote d'Ivoire.

In the case of a customs union, trade creation enhances efficiency; it results in the fall in domestic prices; and it unambiguously increases welfare in the importing country (Bhagwati and Panagariya, 1996; and Winters, 2003). Although RTA can create trade creation, in some cases it can also lead to trade diversion.

4.2.2 Trade Diversion

Trade diversion, on the other hand, implies that more efficient suppliers from outside the RTA with a customs union are displaced by less efficient producers within the RTA (Viner, 2014).

Trade diversion occurs after the formation of a free trade area the elimination of tariffs leads to a substitution of goods from countries that are not part of the free trade area but are more efficient than the goods from countries that form the free trade area. Milner, et al. (2005) state, "Trade diversion usually relates to diverting trade from more efficient extra-regional suppliers to less efficient intra- regional suppliers."

Schiff and Winters (2003) argued that RTAs are trade diverting, if preferential liberalisation by a member country leads it to replace the lower-cost supply from non-member countries by the higher-cost supply by the partner country. The implementation of regional trade agreement, such as an FTA, gives preferential advantages to those countries that are members of the FTA. Countries outside the FTA would be charged tariffs at MFN rates by individual countries. These

MFN rates would be so high that foreign imports would become expensive in the local markets – yet, they could have been cheaper had they been afforded the same preferential treatments.

A recent study by Hannan (2016) referred to trade diversion by looking at what happen to a country's top exporter or top importer that is outside the trade agreement. He shows that the magnitude of trade diversion is small in the North American Free Trade Agreement (NAFTA).

Gauto (2012) noted that the adoption of a common external tariff that fails to divert trade is in most cases witnessed in trade between RTA and industrialised nations, such as China. This is explained by the fact that industrialised nations are involved in mass production. This gives them the advantages of an economy of scale despite the levying of a common external tariff on their cost of production. This this render CET ineffective by not being able to divert trade.

However, some research studies do not support the possibility of trade diversion as a result of a customs union (Kemp and Wan, 1976; Vizjak, 2001; Dukec et al, 2003). In some cases, trade diversion is averted in a customs union because the CET would be too ineffective to switch trade from non-member countries to RTA members, as was observed by Meade (1955); Lewis *et al.* (1999); Amponsah (2002) and Cernat (2003).

This is particularly so if imports are coming from industrialised countries, such as China with massive specialisation and economies of scale, which render the CET useless. In addition, RTA members have limited complementarities in their trade. Hence, this situation provides less scope for the displacement of imports from third countries with regional production (Amponsah, 2002).

From this foregoing argument, it becomes clear that a trade diversion nexus trade liberalisation, which comes into effect through a customs union, is not automatic. It varies from case to case. Hence, this study fills the gap in the literature on whether trade agreements signed by Cote d'Ivoire are trade diverting or not. Economic integration, outside trade creation and trade diversion, also brings about static and dynamic gains.

4.2.3 Static and Dynamic Benefits of Economic Integration

In terms of static and dynamic benefit, a free trade agreement (FTA) leaves future external trade policy to the discretion of each member government, thus providing a continual incentive for interest groups to try to influence the government (McLaren, 2004).

In theory, the formation of an RTA, such as a customs union, is associated with some static welfare effects and dynamic benefits. One of the benefits is the administration savings from the elimination of customs officers, and border patrols for trade among member States (Salvatore, 2007).

The removal of economic barriers among member states would result in a better division of labour, and consequently in an increase in production and prosperity. The elimination of trade barriers among member States is also associated with increased competition, which stimulates development through efficiency and the utilisation of new technology.

New technology gives scope for the diversification of production and the export basket, thereby improving the foreign-exchange earnings of participating countries (UNCTAD, 2008).

Shams (2003) looked at a case study of the Southern African Development Community (SADC) and concluded that the ultimate purpose of regional integration in that region is the economic development of its members as its name reveals, rather than forming different degrees of PTAs. Member countries of ECOWAS since its origins in the 1975s have been focusing their efforts on implementing certain development projects such as alleviating poverty, eradicating Malaria, promoting health and education, and combating HIV/AIDS, rather than reducing tariffs and promoting intra-regional trade.

The withdrawal of tariff and non-tariff barriers among the member states may lead to increased competition among different firms, from different countries, producing similar goods in the same regional trade arrangement (UNCTAD, 2014). This would push production firms from all the involved member states to fully utilise new technology in product diversification.

According to the World Bank (2014), regional integration has managed to aid developing countries and attract bigger volumes of foreign direct investment more than they would have been able to attract if they operated independently.

The size of most WAEMU countries is under 25 million people with national GDPs of less than US\$ 12 billion. Such economies are, however, too small to attract any meaningful investment. The question of whether or not trade liberalisation has resulted in the import of new technology and led to the diversification of exports will be empirically investigated in this study.

4.2.4 Revenue Effects

In theory, there are opposing forces that generate ambiguity as to how tariff reduction affects revenue. Firstly, the fall in import duty results in a decrease in tariff revenue. Secondly, as the price of goods declines – due to a fall in tariffs – there is a tendency for imports to increase, thereby raising revenue.

Mugano (2014); Brenton *et al.* (2009); Hamilton (2009); Makochehanwa (2012) and Wagle (2011) argued that the dismantling of tariffs by developing countries present serious revenue challenges. This is exacerbated by the fact that most developing countries have a fragile domestic tax base – worsened by the fact that other tax policy instruments, such as VAT, excise duties and income tax, are weak (Brenton *et al.*, 2009; Hamilton, 2009; Makochehanwa, 2012 and Wagle, 2011).

Nevertheless, Wagle (2011) argued that, although trade liberalisation results in a loss of government revenue, it pays for itself over time, as countries strengthen their domestic revenue sources. Hamilton (2009) and Brenton *et al.* (2009) argue that the dismantling of tariffs results in a reduction in the prices of products, thereby increasing their demand. In this way, government revenue increases, due to contributions made by domestic revenue sources, such as VAT and excise duties.

4.2.5 The Economies-of-Scale Argument

The ultimate challenge of developing countries is market access. Indeed, it is now well established that countries with better access to world markets have higher per capita income than countries with limited access (Coulibaly, 2009).

A study by Brenton *et al.* (2009) revealed that the regional trade arrangements are mostly aimed to bring about economic gains, although the reduction of losses due to regional integration is sometimes inevitable. This forces production firms to explore the cheapest production means that lead to the best quality to compete against their regional competitors. This tends to result in improved consumer welfare.

In addition, Kwok (2013) found that the gains from external scale economies outweigh those from comparative advantage as the number of goods increases. To him small countries gain more than large countries from trade because they are more specialised in production than large countries, despite the presence of external scale economies. This is again another important reason for a small economy like Cote d'Ivoire to embark on RTAs.

4.2.6 Other Policy Effects of Trade Integration

Jong and Ju (2009) investigate the effect of trade integration on military conflict. They found that increasing trade integration and openness significantly promote peace. In their analysis, the peace promotion effect of bilateral trade integration is significantly higher for contiguous countries that are likely to experience more conflicts. Regional integration creates a much larger political community that might lessen the scope for adverse discretionary actions by individual governments (Amponsah, 2002).

In other words, whereas individually member nations may do well in embarking on policy reforms, group actions could influence all the members to abide by a common reform agenda.

Intra-African trade expansion could also result in faster growth and income convergence within the community. Regional market integration would lead to the emergence of regional growth

poles capable of generating sufficient positive externalities to the less developed member States of the FTA (Economic Commission for Africa, 2012). As production structures are diversified away from primary products, the long-term dependence of African countries on the developed market economies for manufactures is expected to weaken.

De Melo and Tsikata (2015) also explored the challenges and prospect of regional integration in Africa. Their study confirmed that the levels of interaction, responsiveness and consumer welfare have risen, allowing citizens to freely move across the borders of partner states.

RTAs are also seen as a catalyst for political stability within the region. According to Mansfield (1993), regional trade integration is viewed as an instrument for fostering diplomacy and regional stability. It is, therefore, expected that regional trade arrangements could help reduce tensions and the possibility of war among potentially antagonistic nations. However, it is important to mention that free trade is not a guarantee for peace but it can contribute to socio-cultural harmony and interstate cohesion (Kayizzi-Mugerwa, Anyanwu, and Conceição, 2014).

4.3 Empirical Evidence

There are two approaches in the trade literature whereby the impacts of trade agreements can be assessed. One is the *ex post* route that assesses the impacts of RTAs, by investigating the intra-regional trade following the formation of the RTA. The other is the *ex ante* approach, which entails an investigation of the impact of intra-regional trade at an earlier date before the formation of the RTA.

4.3.1 Evidence from *Ex Post* Studies

Crawford, Mitchell, and Anderson (2017) studied the best trade policy to make Britain a global leader for trade and development after the Brexit. Their paper revealed that eliminating trade barriers, improving preferential access for the very poorest countries, cutting the red tape at the boarder and enhancing the aid for trade will benefit the United Kingdom consumers and businesses.

The United States International Trade Commission (2016) looked at the likely impact of the Trans-Pacific Partnership agreement on the United States. The findings suggest that the Trans-Pacific Partnership (TPP) has a positive impact on the United States though it is a small percentage of the overall size of the economy. The United States exports and imports will be US\$27.2 billion (1 percent) and US\$48.9 billion (1.1 percent) higher, respectively. The commission estimates that the TPP will harmonize regulations, increase certainty and decrease trade costs for firms that trade and invest in the TPP regions.

A study by Mugano (2015) conducted a quantitative assessment of the potential impact on revenue, trade and welfare on Zimbabwe, using the partial equilibrium model on bilateral free-trade agreements. This study noted that trade liberalisation will be beneficial for Zimbabwe in terms of exports worth US\$122.433 million and consumer welfare worth US\$16.689 million. However, it was also noted that the country would lose revenue amounting to US\$89 million whereas imports increased owing to the trade creation effects of US\$104.573 million.

Mugano (2015) noted that the possible impact of trade liberalisation from this study in sensitising Zimbabwe on the implementation of BFTA's, suggesting that the government should increase revenue through alternative sources like expanding tax revenues through excise duty; value added taxes and expanding tax to small scale informal sectors.

Another study by the Asian Development Bank Institute (2011) looked at the effects of bilateral trade agreements between Australia, Japan, New Zealand and Thailand, including the Association of Southeast Asian Nations (ASEAN) free-trade agreement with Thailand on the consumer-welfare effects. The findings from the WITS-SMART simulations revealed that, Thailand was the bigger beneficiary, rather than Japan, from the Economic Partnership Agreement (EPA). This is evident by the fact that its welfare is expected to rise by approximately US\$1.2 billion with the zero-tariff trade regime.

Choudhry, kalumnal and Varma (2013) evaluated the impact of Sri Lanka's FTA using a sector specific analysis of the textile and clothing sector. Sri Lanka provided reduction in tariffs -35%

in 2003, 70% in 2006 and 100% in 2008. The result of the SMART analysis revealed that Indian exports of textile to Sri Lanka increased from US\$121 million to US\$395 million during the period 1999 to 2009. Trade creation effects dominate trade diversion effects. For example, when articles of apparel and clothing accessories were traded, trade creation was around US\$ 555 thousand and trade diversion was around US\$ 248 thousand.

Mugano (2013) conducted a study on the impact of a South African Development Community (SADC) Customs Union on Zimbabwe. The WITS-SMART Model was used for the study. The findings reported trade expansion valued at US\$ 39 million and consumer welfare at US\$ 7 million. On trade Zimbabwe's export were expected to fall by 0.94 per cent while imports were expected to surge by 2.05 per cent. However, the country lost revenue amounting to US\$ 42 million.

On the trade front, Karingi, Lang, Oulamane, Perez, Sadni-Jallab and Hammouda (2005) showed that the customs union leads to significant changes in the total volume of trade. However, the terms of trade effects of the customs union establishment indicated that only Zimbabwe loses; while all the other four countries experience an improvement in the short run. On the total effects on welfare of the implementation of the customs union, the results indicated that all countries would gain, with Zimbabwe having a welfare gain equivalent to US\$10.4 million. The authors, therefore, recommended that COMESA should move beyond the FTA to a customs union.

Cernat (2003) used the gravity model to quantify the impact of nine regional trading arrangements on the trade flows among participants, and with third countries for the period 1994 to 1998. COMESA is among the RIAs that were considered by Cernat, and this was after the establishment of the COMESA FTA. The results show significant trade creation effects – with no evidence of trade diversion and moderate trade expansion effects for all the RIAs. For COMESA, trade between members more than doubled, as a result of the trade-creation effect. Trade expansion was also quite significant with imports from third countries increasing by an average of 30 per cent.

Korinek and Melatos (2009) carried out an in-depth assessment of the trade effects of three regional trade agreements – the ASEAN Free Trade Agreement (AFTA), COMESA and the Southern Cone Common Market (MERCOSUR) – using a gravity model. The results show that the creation of AFTA, COMESA and MERCOSUR have increased trade in agricultural products between the member countries. However, there is no sign of trade diversion with respect to imports from outside the region (Korinek and Melatos, 2009). The agreements are, consequently, not trade-creating.

Korinek and Melatos (2009) noted high intra-regional trade in AFTA and MERCOSUR and low intra-COMESA trade. MERCOSUR and AFTA have good infrastructures, which could assist trade facilitation, and thereby promote trade and a strong supply base, with high complementarities in the products traded (Korinek and Melatos, 2009). Korinek and Melatos (2009) argued that low intra-regional trade in COMESA is caused by a weak supply and a lack of complementarities in product traded, lack of basic infrastructures, such as information and communication technologies, and poor roads with a lack of connectivity in most cases.

The Tariff Reform Impact Simulation Tool (TRIST) was used by the World bank to investigate the impact of various trade agreements. These studies were commissioned in Bolivia, Burundi, Ethiopia, Jordan, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Seychelles, Tanzania and Zambia by the World Bank in 2009. The research was undertaken by Hamilton in 2009.

Hamilton (2009) investigated the impact of a COMESA FTA on Ethiopia. The results suggest that an elimination of all tariffs on goods from COMESA FTA countries would result in a fall in tariff revenue by 4.8 per cent, as well as a reduction in total revenue by approximately 2.4 per cent. According to Hamilton (2009), imports are not projected to be heavily impacted (increase of 0.2 per cent).

With regards to the EU free trade agreement, the study looks at six ex-post assessment of the EU free trade agreement with: South Africa, Mexico, Morocco, Tunisia, Chile and India.

Studies conducted by Assarson, (2005) on the impact of South Africa and the EU FTA support the view that EU-SA free trade agreement stimulated both export and imports. The analysis conducted compared the trade statistics between the years 1999 and 2004 which suggested that South Africa's exports and imports to the European Union have increased by 75 percent and 93 percent, respectively. This increase also suggests that trade creation has taken place.

The Free Trade Agreement between Mexico and the 15 member countries of the European Union officially entered into force on July 1, 2000. Sloomackers (2004) in his studies use a gravity model for import and export flows to quantify the trade effects of the EU-Mexico FTA. The results show that the EU-Mexico FTA had a positive trade creation effect for imports. Furthermore, there is no evidence for trade diversion; the FTA also generated a positive effect on imports with non-members.

Elebehri and Hertel (2004) have compared the potential impacts on Morocco's welfare, production and trade, from implementing the Morocco-EU FTA. The analysis pays special attention to several key structural features of the Moroccan economy. The results show that the FTA with the EU generates a welfare loss for Morocco as most of the manufacturing sectors contract under the FTA and only few export-oriented sectors, such as clothing, expand production. Hence it appears that the main effect of FTA with the EU is to lock the Moroccan manufacturing sector even more firmly into its current pattern of specialization.

Boughzala (2010) studied the impact of the European Union free trade agreement with Tunisia. His study revealed that the FTA has on the whole boosted Tunisia's economy and generated significant positive dynamics effects even though in reality trade liberalisation is far from being complete.

Chile has put in place a free trade agreement with the EU which is its major trading partner. Chumacero et al (2004) studied the economic effect on the Chilean economy. The simulation results for key sectors and aggregate variables reveal that aggregate consumption and welfare in the Chilean economy rose by approximately 1 per cent. Imports and exports would grow by 2.7 per cent and 2 per cent, respectively and the real exchange rate would depreciate by 0.2 per cent.

A permanent increase in 1 per cent of aggregate private consumption and GDP are very significant benefits when put on the balance with the costs incurred by Chile during a decade of trade negotiations with the United States and the European Union.

The European Union (EU) and India are currently negotiating a bilateral free trade agreement (FTA) and investment framework. The study of Khorana and Perdakis (2010) identified prospects of and the challenges to the proposed EU-India FTA; The findings suggest that to maximize the potential benefits of this FTA, trade barriers (tariff and non-tariff) in goods and services sectors should be addressed. India perceives that the EU and India are not equal partners and therefore India is demanding an asymmetrical approach. If no clear agreement emerges in these areas, it is apparent that the FTA could result in shallow integration which is likely to generate losses through trade diversion.

Studies carried in West Africa have shown that regional integration has failed to stimulate intra-regional trade. The Economic Community of West African States (ECOWAS), founded in 1975, reveals that the amount of inter-member trade is still less than 10 per cent of the total exports.

Karrem (2015) examined the extent to which households have been affected by the Common External Tariff of the ECOWAS. The results show that the ECOWAS CET has reduced domestic prices of agricultural goods and also indicate that so far the CET has had a net positive effect on households in Nigeria, largely due to the gains from expenditure which outweighed the losses in the households' purchasing power due to lower income from the sales of agricultural products. Thus, richer households have experienced lower welfare gains than poorer households.

A study of the World Bank (2015) looked the impact of ECOWAS CET on Ghana. The study found that by increasing average tariffs on all non ECOWAS importers, the CET leads to a significant increase in protection and tariff revenues, as well as lower imports. The manufacturing firms would be split 50/50 in terms of winners and losers, and winners gain more than losers lose in magnitude of effect. Very few firms become unprofitable as a result and exporters to ECOWAS could gain, particularly if the CET encourages improvements in nontariff barriers to regional trade.

Busse, Borrmann, and Großmann (2004) reviewed the impact of the ACP-EU Economic Partnership Agreement on ECOWAS countries. With regards to ECOWAS, the results revealed that trade creation will be higher in Nigeria, Cote d'Ivoire, Senegal and Ghana with values of US\$452 million, US\$90 million, US\$93 million and US\$60 million, respectively. Trade creation also exceeds trade diversion in all scenarios in all West African countries.

Busse et al (2004) suggested that countries like Cote d'Ivoire who will benefit from the ACP-EU agreement should pay attention to vehicles, fish and petroleum oil since these are the most vulnerable products that are likely to be affected by the trade negotiation.

Hamilton (2009) estimated Madagascar's complete tariff liberalisation under the SADC FTA, by effectively setting all tariffs on imports from SADC countries to zero, while tariffs on imports from other countries remain unchanged. TRIST projects that tariff revenue would fall by more than 8 per cent; while imports would marginally increase by 0.2 per cent. Overall, Madagascar trade revenue is estimated to fall by 2.2 per cent (Hamilton, 2009).

In Mozambique, Hamilton (2009) examined the impact of a complete tariff liberalisation on imports from SACU members by using the TRIST model. The model projected a short-term fall in tariff revenue by 38.3 per cent, as well as a reduction in total revenue by 13.5 per cent. Imports are not projected to be heavily impacted (increase of 1.0 per cent) (Hamilton, 2009). Still on Mozambique, Hamilton (2009) evaluated the impact that SADC Trade Protocol provides for preferential market access for products from other SADC member States on Mozambique. Hamilton (2009) investigated the impact of complete tariff liberalisation under the SADC Protocol; while the tariffs on imports from other trading partners remain unchanged.

The findings showed that short-term, tariff revenue may decrease by approximately 39 per cent resulting in an overall reduction in trade revenue by 13.7 per cent; while imports were expected to increase slightly by 1.1 per cent (Hamilton, 2009).

Hamilton (2009) also used the TRIST model to estimate the impact of SADC FTA on Tanzania. The results of the model suggest a short-term fall in tariff revenue by 8.8 per cent, as well as a

reduction in total revenue by approximately 2 per cent. Imports were not expected to be heavily impacted (increase of 0.2 per cent) (Hamilton, 2009).

Hamilton (2009) considered the short-term impact of an FTA with SADC countries on the Seychelles. In the investigation, a scenario where all the tariffs on SADC imports are liberalised; while the tariffs on imports from other trading partners remain unchanged. The results indicate a 19.4 per cent fall in tariff revenue, and an increase of 0.2 per cent in imports.

Hamilton (2009) used the TRIST model to hypothesise complete tariff liberalisation on imports from EAC member states on Burundi. According to Hamilton (2009), the short-term impact of this reform is projected to involve revenue losses of 8.1 per cent (tariff revenue) and 3.4 per cent (total revenue). Hamilton (2009) noted that imports were expected to increase marginally by 0.5 per cent.

Hamilton (2009) estimated the impact of SADC FTA on Malawi, using the TRIST model. The study hypothesises complete tariff liberalisation with all SADC members; while tariffs on imports from other trading partners remain unchanged. The results show that tariff revenue would be predicted to fall by approximately 55 per cent; and the total trade revenue loss is projected to be 17.5 per cent (Hamilton, 2009). The model also suggests that imports would slightly increase by 1.3 per cent.

Zepeda, Wise, and Gallagher (2009), evaluated the impact of the North American Free Trade Agreement (NAFTA) on Mexico. The study shows that the FTA not only led to increased trade, but also to improvements in the macroeconomic, stability such as an increase in foreign investment, productivity and a stable macroeconomic climate for business. Zepeda et al (2009) noted that Mexico's exports increased by 311 per cent in real terms between 1993 and 2007; and FDI more than tripled between 1992 and 2006 fuelled by investment liberalisation under NAFTA; the majority (58 per cent) came from the United States.

With regard to macroeconomic stability, Mexico tightened its fiscal and monetary policies. On their own terms, these measures were a success. Inflation was brought below 5 per cent, from over 80 per cent in the 1980s. Since NAFTA, federal budget deficits have been low, about 1 per

cent of GDP (at least until the current economic crisis when deficits initially increased to stimulate the economy). This has been achieved; while Mexico dramatically reduced its international debt to a more sustainable level. There were significant gains in productivity, as Mexico's domestic manufacturing sector witnessed a staggering 80 per cent increase in efficiency, due to stiff foreign competition (Zepeda et al, 2009).

Earlier on, Susanto, Rosson and Adcock (2007) looked at the trade creation and trade diversion in North American Free Trade Agreement. They found out that US agricultural imports from Mexico have been responsive to tariff rate reductions applied to Mexican products. Thus, a one percentage point reduction in tariff would increase US agricultural imports from Mexico by 2.4 per cent in the entire period. The result also shows that during NAFTA, a one percentage point decrease in tariff rates would increase US agricultural imports from Mexico by 5.31 per cent in the first 6 years of NAFTA.

Fukao and Okubo (2002) carried out a study in the NAFTA region, and looked at how tariff preferences in the NAFTA may affect U.S. imports from Canada and Mexico. They found that NAFTA has resulted in trade diversion especially in U.S. imports of textiles and apparel products from Mexico. It appears that these imports have come at the expense especially of Asian suppliers.

Krueger (1999) investigated the impact of RTA on NAFTA and found similar results. Krueger's (1999) estimates show that the change in trade among NAFTA countries was not significant. She confirmed, however, that NAFTA countries import less from non-NAFTA trading partners. Additionally, Krueger observed that those commodities which Mexico traditionally exports to the United States grew more rapidly. Krueger also confirmed that Mexican traditional exports with the rest of the world also grew rapidly.

This outcome, furthermore, indicates that the expansion of trade was trade-creating, and not trade-diverting.

ECLAC (2004) estimated the fiscal implications of the free trade agreement signed between the United States of America and the five Central American countries of Costa Rica, El Salvador,

Guatemala, Honduras and Nicaragua. The study reveals that the adverse impact of tariff elimination on fiscal revenue is relatively small in Costa Rica and Nicaragua, whereas the greatest impact was in Honduras, where it accounted for an almost five per cent loss of tax revenue in just the first year of the agreement.

Negasi (2009) estimated the trade effect of regional economic integration in Africa. He looked at the trade creation and trade diversion effect of the Southern African Development Community (SADC) using disaggregated data from 2000 to 2007. The results show that the intra-SADC trade is growing in fuel and minerals, and heavy manufacturing sectors while it displays a declining trend in agricultural and light manufacturing sectors. This implies that SADC has displaced trade with the rest of the world in both fuel and minerals, and heavy manufacturing sectors. Thus, SADC has served to increase trade significantly among its members rather than with the rest of the world.

Lewis, Robinson and Thierfelder (2001) used the CGE model to analyse the impact of the EU FTA on countries, sectors, and factors on seven Southern African countries (South Africa, Botswana, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe). The results showed that the EU FTA is trade-creating. Trade creation has, however, posed a serious threat to SADC industries, which are still weak. From this analysis, Lewis, Robinson and Thierfelder (2001) observed that the unilateral trade agreement envisaged under the Lomé Agreement is more beneficial, in terms of real GDP and real absorption, for SADC countries than a SADC FTA.

Milton and Siddique (2014) examined the impact of the Thailand-Australia Free Trade Agreement (TAFTA) on bilateral merchandise trade flows between Australia and Thailand. The results indicate that the Thailand-Australia Free Trade Agreement has had modest trade creation effects, with little evidence to suggest that this is at the expense of trade diversion. The findings of the study have obvious policy implications.

The Asian Development Bank Institute (2011) also estimated the impact of bilateral agreements between Thailand, Australia, Japan and New Zealand, as well as the ASEAN FTA with Thailand on welfare. The simulation results from the two studies show that among the bilateral FTAs,

Thailand gains most from the Japan-Thailand Economic Partnership Agreement (EPA), as its welfare is anticipated to increase by about US\$1.2 billion, if the tariff-elimination process is completed. Among the alternative bilateral FTA scenarios, the Thailand-New Zealand Comprehensive Economic Partnership Agreement (CEPA) brings the least benefit to Thailand, increasing Thailand's welfare by only US\$11.3 million.

However, according to the Asian Development Bank Institute (2011), Thailand stands to gain more from a regional bilateral free trade agreement (Association of Southeast Asian Nations (ASEAN)) especially if such region-wide agreements are comprehensive and foster services and trade, as well as reducing tariffs. The simulations show that an ASEAN plus three other Asian countries – Japan, the Republic of Korea, and China – generate, the largest welfare gains for Thailand of US\$26.7 billion in economic welfare by 2017; while the inclusion of just South Korea to the ASEAN gives only welfare gains of US\$2.6 billion.

Still in Asia, Fukunaga and Isono (2013) have investigated the implications of multiple memberships on Asian countries on trade. In this regard, Fukunaga and Isono (2013) took stock of ASEAN's own FTA, and five existing FTAs, to identify any possible benefits and challenges. The coexistence of five FTAs with different rules of origin (ROOs) creates a potential “noodle-bowl” situation, which impedes the effective use of the FTAs (Fukunaga and Isono, 2013).

Lee (2013) has used the CGE model to estimate the impact of the FTA between the US and South Korea (KORUS FTA) on South Korea. The results show that South Korea will witness an economic growth of 6 per cent; while the growth of consumption expenditure and welfare seem to follow a similar pattern as the growth of GDP (Lee, 2013).

Lee (2013) found related results on the Korean-China FTA and Korean – EU FTA (KOREU FTA). In the case of KOREU FTA, Korea's GDP would improve 1.28 per cent and 3.57 per cent and get a 6 per cent increase in exports, on average. The Korea-China FTA has bigger economic effects than KOREU FTA on the Korean economy. The Korean economy would obtain a 2 to 4 per cent increase in GDP growth, and a 0.64 to 3 per cent increase in welfare growth. Furthermore, judging from all economic simulation results between Korea and highly advanced

and larger economies in the study, the Korean economy has reaped far more economic benefits than have other countries (Lee, 2013).

Sikdar (2011) estimated the impact of India-Asean Free Trade Agreement. The results of the simulations were used to assess the impact of this liberalization, both on the external sector and on domestic macroeconomic variables in India and ASEAN. The simulation results reveal that post-FTA, India's exports to ASEAN increase substantially, with the largest accesses gained in Thailand, Cambodia, Viet Nam, Malaysia, the Philippines and the Lao People's Democratic Republic. India experiences a welfare loss due to both allocative inefficiency and negative terms of trade effect but in the ASEAN region, Malaysia, Singapore and Thailand show positive welfare gains with the largest gain accruing to Singapore (Sikdar, 2011).

Francois and Pindyuk (2013) examined the economic impact on Austria of three possible new EU free-trade agreements, that is, an EU-US agreement, an EU-Canada agreement, and an EU/Armenia/Georgia/Moldova agreement. The results show that of the three agreements, a potential agreement with the USA is by far the most important (Francois and Pindyuk, 2013). This follows from the size of the US economy. The USA accounts for roughly one-quarter of extra-EU Austrian exports. Overall, the combined impact of the FTAs studied is positive (Francois and Pindyuk, 2013).

Most of the impact follows from investment response. Productivity gains from trade liberalisation have led to a combination of increased national income, higher wages, and employment, and increased capital stocks for the Austrian economy (Francois and Pindyuk, 2013).

According to Laery (2010), AANZFTA would result in significant trade creation in New Zealand, thereby improving consumer welfare. In this regard, households are expected to witness a consumer surplus of US\$50 million annually (Laery, 2010). Laery (2010) noted that although trade liberalisation would lead to a loss of tariff revenue in the region of US\$26.3 million, this is inconsequential, as it represents a paltry share of GDP, and it is even compensated for by the welfare gains.

Laery (2010) estimated the impact of an ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) on New Zealand, which came into force in January 2010. AANZFTA was estimated to bring an additional US\$48.1 billion GDP to the region in the 2000-2020 period. Of this, US\$25.6 billion would go to ASEAN, US\$19.1 to Australia, and US\$3.4 billion to New Zealand (Laery, 2010).

Okabe and Urata (2013) examined the impact of trade liberalisation under AFTA on intra-ASEAN trade. The results show positive and significant trade creation effects from the tariff elimination for a wide range of products. Thus, the Asean FTA has been successful in promoting intra-AFTA trade.

Veeramani and Saini (2010) carried out an assessment of the impact of recently signed ASEAN-India FTA (AIFTA) for selected plantation commodities (coffee, tea and pepper) in India, using the SMART model and the gravity model. Overall, the results suggest that the AIFTA would cause a significant increase in India's imports of plantation commodities. The increase in imports is mostly driven by trade creation rather than by trade diversion (Veeramani and Saini, 2010). The analysis shows that the proposed tariff reduction may lead to significant tariff revenue loss to the government (Veeramani and Saini, 2010).

However, the gain in consumer surplus (due to the fall in domestic prices and the consequent reduction in dead-weight loss) outweighs the loss in tariff revenue, leading to a net welfare gain. By and large, the simulations based on the SMART and gravity models provide similar results on the magnitude of the total increase in imports. The surge of new imports may have adverse impacts on the livelihood of the Indian farmers engaged in the production of these commodities. Farmers would have to realign the structure of their production, according to the changing price signals; and hence, it is critical to provide adjustment assistance to the affected farmers (Veeramani and Saini, 2010).

Fontagne et al (2008) carried out an assessment of the impact of the EU-ACP Economic Partnership Agreements (EPAs) in the six ACP regions. The results show that ACP exports to the EU are forecast to be 10% higher with the EPAs than under the GSP/EBA option. In the long

run, average ACP countries are forecast to lose 70% of tariff revenues on EU imports and the most affected region is ECOWAS.

Ghani (2011) estimated the impact of trade liberalisation on the economic performance of the Organisation of Islamic Conference (OIC) member countries that have gone through the liberalisation process since 1970. The results show that the effects vary from one country to another. On average the liberalisation process has improved GDP per capita in the medium term. However, the ratio of imports, exports, and trade over GDP did not improve after trade liberalisation.

With regards to the Caribbean and Central America, Hornbeck (2012) examined the Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR). The findings show that U.S. exports will grow, with gains in agriculture and more modest growth in manufactured goods. Part of this growth appears to be related to CAFTA-DR and will likely continue as the trade agreement is fully implemented over time. For the Central America region, differences among countries can be large, with Costa Rica clearly outperforming the group on logistics capabilities, while Nicaragua lags (Hornbeck, 2012). This stark difference may reflect various issues including level of economic development and political decisions to support trade, in general, and CAFTA-DR in particular.

Boyer and Schuschny (2008) used GTAP CGE model/database to assess the possible effects of an FTA between the MERCOSUR and the EU. From the point of view of the MERCOSUR countries, the results suggest that the FTA would be beneficial in fostering their exports, especially in the case of light manufactures (Boyer and Schuschny, 2008). Imports to MERCOSUR from the EU would be increased, particularly in heavy manufacturing sectors. In terms of GDP, the results remain positive in the case of all the MERCOSUR countries in all simulated scenarios. However, the welfare implications are unevenly distributed in favour of all the MERCOSUR countries in the simulated scenarios.

4.3.2 Evidence from *Ex Ante* Studies

Othieno and Shinyekwa (2011) investigated the impact of EAC customs union on Kenya using the WITS/SMART model. Othieno and Shinyekwa (2011) noted that the trade effects are more reflected in the first period of a fully-fledged EAC customs union. This is where all tariff lines across all products are at zero per cent, except for products that do not meet the Rules of Origin criterion. The result seems to suggest that trade created in 2010 would grow by 513.3 per cent, that is, to the tune of US\$17.3 million, with a diversion effect on a few products including cement, chewing gum, soap products, paints and varnishes, iron and steel, woven fabrics of cotton, aluminium, and base metal.

This indicates that these are the only products that have become competitive against imports coming from outside the custom union in Uganda's market (Othieno and Shinyekwa, 2011).

Othieno and Shinyekwa (2011) observed that a reduction of the tariff by 2 per cent on imports from Kenya subsequently led to a loss in tariff revenue. The results further reflect that the welfare effect would be more meaningful and significant if the tariff line on all products were zero, amounting to US\$507,801 worth of consumer surplus. The negative welfare effect was expected on Uganda, given its initial application of MFN tariff structure. The MFN tariffs were lower than both the transitional tariff and EACCU CET, as noted earlier.

Bilal, Dalleau and Lui (2012) evaluated the impact of EPAs on selected countries in West Africa and Eastern and Southern Africa (ESA). Their results show that eight countries in West Africa (Benin, Cape Verde, Comoros, Djibouti, Gambia, Ghana, Guinea Bissau and Togo) would be likely to suffer significant losses in tariff revenue – with the loss ranging from a 6 per cent reduction in total tax revenues to 43 per cent. In the ESA region, Bilal, Dalleau and Lui (2012) noted that the impact on fiscal revenue was “modest”, while seven countries (Zambia, Swaziland, Nigeria, Namibia, Lesotho, Botswana and Malawi) have been estimated to expect a relatively “low” impact.

Onogwu and Arene (2013) have recently investigated the likely trade, revenue and welfare consequences for Cape Verde of embarking on free-trade economic-partnership agreements

(EPAs) with the EU, using the partial equilibrium analysis. Onogwu and Arene (2013) show that Cape Verde stands to lose as much as 35 per cent of its total revenue due to the elimination of tariff on imports from the EU. Imports from the EU are expected to increase remarkably for Cape Verde, mainly due to trade creation, diversion and consumption effects, while tariff revenue would fall, as a result of the increase in duty-free access for her EU imports (Onogwu and Arene, 2013).

The European Union (EU) and the United States (US) are currently negotiating a free-trade agreement (FTA). The Transatlantic Trade and Investment Partnership (TTIP) is focused on the possible effects on welfare and employment. Francois et al (2013) investigated on the impact of the transatlantic trade and investment between the EU and the US. The study investigates different policy options for the deepening of the bilateral trade and investment relationship between the EU and US. The study concluded that reducing transatlantic barriers to trade and investment will result in an increase of €545 in the annual disposable income per household in the EU and an increase of €655 per family in the US.

Another study by Khan et al (2015), shows that the TTIP would increase the size of the US economy by 0.4 per cent of GDP and the size of the EU by 0.5 per cent of GDP. Their study shows the TTIP has a negative impact on less developed countries. They conclude that because the less developed countries have not been included in the decision making process, key sectors for such countries such as textiles were unlikely to be substantially impacted by the TTIP.

Still on the TTIP, Cai et al (2015) found that aggregate imports and exports of US will increase by 4.58 percent and 3.11 percent respectively while aggregate imports and exports of EU will increase by 3.17 percent and 2.02 percent respectively on the other hand BRICS exports (India, Russia, South Africa, China) will suffer negative effects because exports substitution effects of US-EU free trade agreement is greater than the spillover effect which will cause real GDP of India, Russia, South Africa and China respectively decrease by 0.09 percent, 0.1 percent, 0.08 percent, 0.12 percent.

The North America Free Trade Agreement is an agreement between the United States, Mexico and Canada which came into force in 1994. Kehoe (1993) studied the potential impact of a NAFTA agreement between the three countries. The study suggests that the agreement will create a free trade area larger in population and GDP than the European Community. The results of this study revealed that the impact is expected to be favourable in all three countries but relatively small in Canada and the United States because they already have their own free trade agreement.

In West Africa, Onogwu and Arene (2013) carried out a study to estimate the impact on Burkina Faso of eliminating tariffs on imports from the EU under EPAs, considering trade, revenue and welfare effects. The results show that a complete elimination of tariffs leads to small welfare gains relative to GDP, but potential tariff revenue losses and trade creation.

Hamilton (2009) using the TRIST model estimated the short-term impact of a complete elimination of tariffs by Burundi on EU imports. The study shows that tariff revenue is projected to fall by more than 20 per cent and total revenue by 9.3 per cent. According to Hamilton (2009), imports are expected to increase by 1.3 per cent; while it is anticipated that the new average collected tariff rate would fall by almost 3 percentage points to 9.3 per cent.

Still on the Burundi EPAs scenario, Hamilton (2009) considered an EPA, but allows for the exclusion of some products from liberalisation. The study assumed that all tariff lines are liberalised except for a list of the most revenue-sensitive products, which represent just less than 20 per cent of overall trade with the EU. The results showed that tariff revenue would decline by 12 per cent and total revenue by 5.1 per cent (Hamilton, 2009).

Hamilton (2009) observed little change is projected in the level of imports (increase of 0.8 per cent) and the model suggests a fall in the import-weighted collected tariff rate from 12.1 per cent to 10.5 per cent.

Hamilton (2009) also estimated the impact of a full trade agreement with the EU for Malawi without exemptions of any sensitive products. The model projects an increase in imports by 0.2 per cent and reductions in tariff revenue of 7.5 per cent, and total revenue by 2.4 per cent.

However, after taking into account an exemption of up to 20 per cent of Malawi's imports, which are revenue-sensitive from the EU from tariff liberalisation, the model projects an almost non-existent revenue impact for the EPA if the products on the exclusion list defined above are excluded from liberalisation (Hamilton, 2009).

In particular, the scenario is projected to result in almost no change in imports or revenue. Given that the exclusion list is designed to minimise the revenue impact of the agreement, it was clear that the sensitive list prepared by Malawi officials was not revenue-sensitive (Hamilton, 2009).

Hamilton (2009) estimated the impact of EPAs on Kenya's revenue. In this regard, the study assumed complete tariff liberalisation under the EPA on Kenya's trade revenue. According to Hamilton (2009), tariff revenue is projected to fall over the short-term by more than 20 per cent, leading to an overall reduction in trade revenue of 5.8 per cent. Imports are estimated to marginally increase by 0.4 per cent. Contrary to the Malawi case, an exemption of 20 per cent for the sensitive products from the EPA is expected have a significant impact on revenue. Kenya could expect a reduction in tariff revenue of 5.7 per cent and a fall of 1.5 per cent in total trade revenue (Hamilton, 2009).

According to Hamilton (2009), these revenue losses are substantially lower than those projected under the EPA – without an exclusion list.

In Ethiopia, Hamilton (2009) estimated the impact of EPAs on the country using a TRIST model. The TRIST model contained revenue data on: statutory tariffs, collected tariffs, the excise tax and the value-added tax (VAT). The results show that Ethiopia collects the least of its trade revenue from excise taxes (10.5 per cent), while tariffs and VAT each account for approximately 45 per cent of revenue. From Hamilton's (2009) results, VAT is a major contributor of revenue for Ethiopia. It is, therefore, clear that both excise duties and VAT can be important policy instruments, which could be used by Ethiopian fiscal authorities to mitigate the loss in import-duty revenue.

A unilateral implementation of full liberalisation with the EU by Ethiopia is expected to drive up imports marginally by 0.6 per cent; while tariff and total revenue are likely to fall by 17.1 per

cent and 8.3 per cent, respectively (Hamilton, 2009). However, after taking into account the 20 per cent exemption of Ethiopia's imports from the EU imports from tariff reduction under the EPA, based on the most revenue-sensitive products, the assumption is that the country is projected to witness a reduction in tariff revenue of 10.5 per cent, and that total revenue would fall by 5 per cent (Hamilton, 2009).

According to Hamilton (2009) this scenario would result in a small increase in the level of imports (increase of 0.4 per cent).

From the analysis, Hamilton (2009) observed that Ethiopia imported ETB32 billion worth of goods from 153 import partners, representing 4,137 tariff lines in 2005. According to Hamilton (2009), the top ten importers were: Saudi Arabia, China, the United States, India, the United Arab Emirates (UAE), Italy, Germany, Japan, Turkey and Sweden.

A similar study conducted by Okello (2008) concluded that while the EAC customs union would generate more trade among the member countries, Kenya's manufacturing sector remains far more advanced than those of other member countries; and this could spell doom for Uganda in the short and medium term.

Still in eastern Africa, McIntyre (2005) analysed the potential trade impact of the forthcoming East African Community (EAC) customs union. The study looked at the trade linkages among the member countries of the EAC and the extent to which the introduction of the EAC common external tariff will have on Kenya. The empirical results indicate that the union will have a beneficial effect on Kenya's trade. The results indicate a possible increase in trade of US\$193.5 million with trade creation estimated at US\$193.9 million and trade diversion at US\$0.3 million (McIntyre, 2005).

Earlier Derosa et al (2003) investigated the new EAC custom union using a quantitative model of East African Trade based on simple Vinerian custom union theory. The results indicate that Uganda's economic welfare would be significantly compromised if the new customs union establishes the common external tariff substantially above the current tariff level in Uganda, as presently planned.

Derosa et al (2003) however, found that Kenya and Tanzania would benefit because their current trade regimes are more protectionist than Uganda's. Furthermore, trade creation in both Kenya and Tanzania under the new customs union plan would promote industry competitiveness, but not in Uganda where "import discipline" would be reduced for domestic industry.

Kaluwa and Kambewa (2009) used the WITS/SMART model to carry out the quantitative analysis on the likely impact of the COMESA CET on Malawi. The results of the analysis indicate that currently Malawi trades mainly with South Africa, and generally with countries outside the COMESA region. The CET is expected to result in reduced consumer welfare and competitiveness for Malawi's producers who rely heavily on imported inputs. This is likely to be the same case for Zimbabwe, as her major trading partners are South Africa and the EU.

Brenton et al (2007) studied the impact of EPA FTA on selected countries in COMESA (Ethiopia, Madagascar, Malawi and Zambia) using the Tariff Reform Impact Simulation Tool (TRIST). The results show that Ethiopia, Madagascar, Malawi and Zambia stand to lose revenue to the tune of 2.4 per cent, 4.9 per cent, 2.2 per cent and 0.8 per cent, respectively, if they implement EPAs.

Lang (2006) carried out an investigation, which sought to estimate the impact of Economic Partnership Agreements on ECOWAS. Lang (2006) observed that imports from the EU to ECOWAS would increase by approximately US\$ 1.87 billion after implementing EPAs. Lang noted that France and the UK would be the two main beneficiaries on the EU side; and other studies have found similar results. Nigeria, Ghana and Cote d'Ivoire came out as big players within ECOWAS, as they were projected to absorb the bulk (two-thirds) of the increased imports from the EU.

According to Lang (2006), trade creation effects represent 81 per cent of the overall trade effect, largely exceeding trade-diversion effects. Trade creation benefits are skewed towards Nigeria, Ghana and Cote d'Ivoire. From the study, trade creation is well spread-out across a large variety of goods, even if some concentration may be observed in cars, oil products, clothing and medicine. According to Lang (2006), the trade diversion effects seem relatively significant (-7

per cent). Crucially, the study reveals intra-regional trade diversion (-6.7 per cent), which shows a negative effect on regional integration. From this study, it is clear that in ECOWAS the two principles of reciprocity and deeper regional integration are likely to pull in different directions. Lang (2006) argued for differentiation and less than full reciprocity in the EU-ECOWAS EPA negotiations.

On the impact of EPAs on government revenue, Lang observed that Ghana and Guinea-Bissau are the most affected, although Nigeria witnessed the highest loss in absolute terms. Ghana, and especially Guinea-Bissau, could lose up to 20 per cent of its government budget revenues in the case of a full liberalisation of EU imports (Lang, 2006). The EU – ECOWAS - EPA results are incomplete concerning welfare gains. It seems that the consumer surplus would mainly be improved through the lowering of prices of industrial goods, such as cars, machines and equipment.

Karingi et al (2005) carried out a study to estimate the impact of EPAs in SADC. Karingi *et al.* (2005) reveal that the SADC countries stand to see their imports increasing by US\$350.8 million (caused by trade creation effects) if an EPA is implemented. The major beneficiaries from EU are Portugal, France, United Kingdom, Italy, Belgium and Germany with 32 per cent, 12 per cent, 12 per cent, 9 per cent, 9 per cent and 7 per cent, respectively, of increase in exports. The worst hit countries are Angola, Tanzania, Mozambique, Botswana and Namibia with 62 per cent, 25 per cent, 6 per cent, 4 per cent and 3 per cent, respectively of new imports going into their economies. With respect to revenue, Karingi et al. (2005) observed that the SADC member States stand to lose US\$153.551 million if EPAs are implemented with the lion's share of revenue loss going to Angola with US\$103.255 million.

McKay *et al* (2005) considered the likelihood of the establishment of an EPA between the EU and the EAC, and observed that all three member states in EAC would be likely to suffer large revenue losses. The results show that Uganda would be likely to experience a net welfare gain; and Kenya would stand to lose some of its share in Tanzanian and Ugandan markets.

Zgovu and Milner (2007) went on to provide a detailed analysis of the trade and welfare effects of unilateral trade within the EU context of non-agricultural products on Tanzania. They found that an EAC EPA with the EU would increase imports from the EU by 84 per cent.

Zgovu and Kweka (2008) estimated the impact of EU FTA, using the partial-equilibrium model in Malawi and Tanzania. The researchers showed that Malawian and Tanzanian imports were likely to increase by 6 per cent and 1 per cent, respectively, if they adopt EU FTA. Both countries are expected to suffer massive revenue losses of 52 per cent for Tanzania and 21 per cent for Malawi (Zgovu and Kweka, 2008). Zgovu and Kweka (2008) revealed that welfare gains were insignificant in both these countries.

A study on the impact of EPAs on revenue on East and Southern African countries (ESA) carried out by Oxfam (2006) shows that all the seven ESA countries stand to lose revenue if they implement the EPAs. The major casualties being Mauritius, Seychelles, Democratic Republic of Congo (DRC), Zimbabwe, Zambia, Madagascar and Malawi with losses of US\$71.118 million, US\$24.894 million, US\$24.692 million, US\$18.431 million, US\$15.844 million, US\$7.712 million and US\$7.09 million, respectively.

Tekere and Ndlela (2003) estimate the impact of the EPAs on SADC member States, using partial-equilibrium analysis; and they found that an EPA could cause a significant loss of import tariff revenue. The study shows that revenue collected from import duties in Tanzania and Namibia could fall by 37 per cent and 24 per cent, respectively.

Hallaert (2007) estimated the impact of EU FTA on Madagascar. The results showed that Madagascar is likely to increase exports to the EU by 3.8 per cent due to increased market access. However, the EU also stands to increase its exports to Madagascar by 4.9 per cent due to trade-creation effects.

Keck and Piermartini (2005) used a computable general equilibrium (CGE) model of 15 regions and 9 sectors within the General Trade Analysis Project (GTAP) framework to simulate the effects of EPAs on SADC countries. The researchers showed that an EPA would be likely to cause an improvement in welfare-enhancing caused by an increase in real GDP and additional

gains through increased intra-SADC liberalisation. Sectors which are expected to contribute to welfare gains are: animal agriculture and food processing (Keck and Piermartini, 2005).

Disenyana (2009) looked at the issue and challenges toward an EAC, COMESA and SADC free trade area. The paper was written to provide recommendations on the architecture of the agreement, regional trade policy, monitoring and consultation mechanisms. Multiple membership to different trade regimes risk trade deflection and administrative challenges to member states, therefore FTA could minimize and eventually eliminate the contradictions brought about by overlapping membership (Disenyana, 2009). The paper shows that greater co-operation and eventually common approaches is vital amongst the three RECs in their interaction with key partners.

Makochehanwa (2012) examined the possible impact of the SADC/COMESA/EAC tripartite agreement on the 26 member States. Makochehanwa (2012) estimated the impact of a 100 per cent liberalisation on trade creation, trade diversion and welfare, using the WITS/SMART model. Makochehanwa (2012) noted that the 26-bloc countries would gain by close to US\$2 billion in terms of trade creation, as a result of the FTA. The Democratic Republic of Congo and Angola are expected to take the lion's share of trade creation (that is 60 per cent of total trade created) amounting to US\$783 million and US\$384 million, respectively (Makochehanwa, 2012).

According to Makochehanwa (2012), the dominance of these two countries as winners is not a surprise, given that they do not participate in any of the FTA currently available; for instance, in SADC they are both members, and also the DRC does not participate in COMESA FTA. Thus, any tariff liberalisation to be brought about by way of a tripartite FTA would result in a massive reduction of tariffs in these two countries, thus stimulating more imports from T-FTA countries into Angola and the DRC (Makochehanwa, 2012).

On the other hand, Makochehanwa (2012) observed that countries, such as Mauritius, Botswana, Swaziland, Namibia, Lesotho and Rwanda, among others, are expected to have insignificant trade volumes created by the FTA. Makochehanwa (2012) suggested that all these countries are

already liberalised, Mauritius under COMESA and SADC FTAs, while the other countries fall under the SACU customs union and the SADC FTA, hence the low trade creation. Rwanda has liberalised most of its trade under the EAC customs union and COMESA FTA; and these are the regions it has been heavily trading with, over and above the rest of the world.

Countries such as Eritrea, Comoros, and Seychelles are suggested to have insignificant trade creation; and this is expected because they currently have little trade with the other tripartite FTA countries.

On trade diversion, Makochehanwa (2012) finds that a total of US\$ 453.6 million worth of trade would be diverted from low-cost countries outside the tripartite FTA, to be replaced by less efficient FTA countries in the tripartite alliance. The countries to experience the highest trade diversions would be Angola (US\$ 106 million), Kenya (US\$ 61.1 million), DRC (US\$ 56.9 million), Tanzania (US\$ 42.2 million) and Uganda (US\$41.8 million). These five countries would experience a total trade diversion of US\$ 308 million, thus representing 68 per cent of total FTA trade diversion.

Countries, such as Botswana, Lesotho, Namibia and Swaziland would experience insignificant trade diversion, meaning that no trade would be diverted from low-cost producers outside the FTA countries (i.e., ROW) towards less efficient producers in the tripartite countries (Makochehanwa, 2012). This is possible, given that these countries import the bulk of their imports from those countries, which are already in the tripartite agreement, especially South Africa with which it has a customs union arrangement.

Makochehanwa (2012) found that complete tariff liberalisation under the SADC/COMESA/EAC tripartite agreement would result in an estimated US\$1 billion loss in customs/import duty revenue for all the countries. The countries to suffer the highest revenue loss would be the DRC (\$214 million or 21.4 per cent), Kenya (\$211 or 21 per cent), Angola (\$160.6 million or 16 per cent), Tanzania (\$72.5 million or 7.2 per cent) and Zimbabwe (\$71.2 million or 7.1 per cent). These five countries would have a combined revenue loss of \$729.6 million, and would account for 73 per cent of the total tripartite revenue loss (Makochehanwa, 2012). According to

Makochekanwa (2012), Mauritius, Eritrea, Botswana, Lesotho, Namibia and Swaziland have experienced an insignificant revenue loss. These countries have already liberalised their economies, so this new tripartite agreement would have little effect on their revenues.

Makochekanwa (2012) estimated a positive welfare effect of around \$205.5 million across the 26 countries in the tripartite agreement. These benefits would emanate from the fact that consumers in the tripartite countries would be buying goods at relatively lower prices following reduced import duties. Furthermore, they would probably get implicit benefits resulting from the wide variety of choice brought by more imports from diverse (T-FTA) countries than before the T-FTA came into effect.

Willenbockel (2014) provided an ex-ante computable general equilibrium assessment of the planned Tripartite Free Trade Agreement between the member states of the COMESA, the EAC and the SADC. The results of the study show that the establishment of a free trade area among all 26 partners will be projected to generate welfare gain of US\$ 578 million with South Africa being the largest real income gainer (Willenbockel, 2014).

Other early *ex ante* studies focused mainly on the EC that comprised six original members and North America. Verdoorn (1960) found that the EC was trade-creating. He observed that the estimated static welfare gains were insignificant, at less than 0.05 per cent of GNP per annum.

Sobarso (1991) looked at the gain of the Mexican economy under the NAFTA agreement using a general equilibrium analysis. The results show that additional gains from trade are present and trade liberalisation accompanied by some sort of economies of scale increases real income and make the economy more efficient.

Other studies on the EU Single Market Programme have found similar results indicating that the deepening of economic integration in the EU is expected to achieve economic gains that are positive and generally significant (between less than 0.50 per cent and more than 3 per cent of GDP per annum) and the pro-competitive effects of product standardisation (with increasing returns to scale) are the major force behind these gains (Gasiorek, 1992; Haaland and Norman, 1992). The results also showed evidence of trade diversion following integration, thereby

limiting any gains in welfare to the EU, as consumers are now paying higher prices as inefficient industries displace low-priced products outside the EU. The EU market also witnessed a serious rationalisation of production and the closure of a large number of EU firms that have faced declining terms of trade and profit margins.

Brown *et al.* (1992), Roland-Horst *et al.* (1992), and Bachrach and Mizrahi (1992) carried out *ex ante* studies of NAFTA. All three of the studies found that NAFTA provides positive gains to members. As expected, the largest proportionate gains were skewed towards Mexico. The authors found that although substantial diversion of trade with non-members might occur, the impact on welfare in the rest of the world is unlikely to be appreciable.

In Mozambique, Alfieri, Cirera and Rawlinson (2006) carried out a study on Mozambique WTO FTA using the WITS/SMART model. They assumed that Mozambique could unilaterally liberalise its trade with the WTO framework, that is, the total elimination of tariffs and duty surcharges, while keeping existing VAT and excise taxes. Alfieri, Cirera and Rawlinson (2006) show that Mozambique would witness imports increasing by 4.68 per cent if it liberalises its MFN rate. Mozambican consumers are expected to record a welfare gain of US\$160 million.

Hess and von Cramon-Taubadel (2007) evaluated the implications of the conclusion of the Doha Round on global welfare using both partial equilibrium and CGE models based on data drawn from 110 countries/regions. In this study, Cote d'Ivoire was covered under the Sub-Saharan region. They observed that the trade liberalisation within the WTO framework would give rise to an improvement of global welfare by a staggering US\$ 2.5 trillion. The thrust of the trade liberalisation is aimed at enhancing welfare gains. The question as to whether Cote d'Ivoire has a significant share in welfare gains, which come with the conclusion of the Doha, is an empirical one tested in this study.

From the foregoing discussion a number of observations could be concluded:

The results from previous studies show that emerging markets/industrialised countries and developed economies have significantly benefited from trade liberalisation, as their economies show high degrees of complementarities in goods traded. This resulted in growth in intra-

regional trade, which spurs economic growth. However, evidence from developing countries, especially from COMESA, SADC, EAC and ECOWAS, reveals a lack of complementarities, weak supply and poor infrastructures, as major barriers to countries in benefiting from trade liberalisation.

Although there is considerable evidence on trade liberalisation in a number of African countries, the outcomes of trade reforms varies from one country to another. This variation is caused by differences in economic structures, foreign policy and economic geography. It, therefore, follows that assessments of trade policy reforms undertaken in other countries cannot be used to benchmark Cote d'Ivoire's trade-policy reforms. It is, therefore, imperative to carry out a research on the impact of different trade-policy regimes on Cote d'Ivoire. And this is the main objective of this study.

From the above discussion, it is apparent that the impact of a customs union and FTAs on imports, exports, welfare and revenue is ambiguous from a theoretical point of view. The various theoretical contributions point to potentially important effects and fundamental guidelines, but no general conclusions can be drawn from the theory alone. This, therefore, implies that the question of whether a customs union is welfare-increasing or not is essentially an empirical question that must be settled by examining the specific data of WAEMU/ECOWAS customs union and FTAs on Cote d'Ivoire.

According to the researcher's knowledge, studies carried out to evaluate the impact of the WAEMU customs union on Cote d'Ivoire did not, however, touch on the revenue implications of the customs union. This study, therefore, fills the gap by empirically analysing the revenue implications and the prices of the WAEMU customs union.

According to the researcher's knowledge, there are no comprehensive studies, which were carried out to evaluate the impact of WAEMU/ECOWAS customs union, EU FTA, BFTA and WTO FTA on trade, revenue and welfare in Cote d'Ivoire. This study, therefore, fills the gap by empirically analysing the revenue implications, exports, imports, trade creation, trade diversion and welfare of the of these trade agreements on Cote d'Ivoire.

4.4 Summary

This chapter looked at the theoretical and empirical literature on trade liberalisation. In respect of evaluating the theoretical literature, this study examined trade creation, trade diversion, the static and dynamic gains of regional economic integration, and the revenue effects of trade liberalisation. The argument on the economies-of-scale factor and the policy implications of regional trade integration were also examined. The empirical literature assessed the two approaches and techniques on the effects of regional trade agreements.

The *ex-ante* technique examined the studies done prior to the formation of the economic blocs; whereas the *ex-post* studies scrutinised the influence of the regional trade agreements with the assistance of a simple investigation that examines the intra-regional trade-pattern flows after the formation of the regional trade agreements.

The evaluation of empirical literature on the effects of trade liberation entailed an examination of existent related studies on trade liberalisation. This was mainly aimed at providing a more comprehensive framework necessary in addressing the core-objectives. In this regard, it was possible to study and analyse the methodologies applied in previous studies concerning the knowledge gap in respect of the effects of trade liberalisation. This was instrumental in determining the robust analytical instruments and tools necessary to achieve the objectives of this study.

The findings from the related studies on the effects of trade liberalisation on trade aspects, such as the quantity of exports, imports, trade creation, trade diversion, welfare and revenue effects have shown varying outcomes from one country to another and one case to another. This emphasises the fact that the findings from different studies cannot be generalised for Cote d'Ivoire. This also justifies the need to carry out this study as it should be able to highlight the unique features on the impact of trade liberalisation and policy changes on Cote d'Ivoire's trading regimes.

Through the review of the related literature, it was noted that the WITS-SMART model approach has been used in numerous cases in assessing the impact of trade policy on trade variables and other aspects. This afforded the researcher the opportunity to confirm that the WITS-SMART model approach had been tested in various cases and provided credible results to use in policy-making for a nation. Upon investigation, the researcher found that no previous study using the WITS-SMART model was undertaken to assess the trade liberalisation influences on Cote d'Ivoire with WAEMU/ECOWAS customs union, EU FTA, BFTA and WTO FTA, specifically on trade creation, trade diversion, exports, imports, revenue and welfare during the period 2008 to 2014. This convinced the researcher of a knowledge gap that needed to be filled through this study.

The next chapters of this study present the WITS-SMART model specification-estimation procedures that were applied in examining the impact of trade liberalisation on Cote d'Ivoire.

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 Introduction

This chapter explores and presents model-specification estimation procedures used in analysing the impact-of-trade liberalisation on Cote d'Ivoire, which is the main objective of the study. Specifically, the research has estimated the impact of various trade regimes on trade creation and diversion, imports, exports, revenue and welfare effects. The partial equilibrium model and the World Integrated Trade Solutions/Software for Market Analysis and Restrictions on Trade (WITS/SMART) model was used to estimate the impact of trade-policy regimes on Cote d'Ivoire.

The chapter is organised as follows: Section 5.2 examines the partial-equilibrium model. The WITS/SMART model was used to estimate the impact of Cote d'Ivoire's trade-policy regimes on tariff revenue, imports, exports, trade creation and diversion, and welfare, which are the objectives of the study. Subsection 5.3 reviews in detail the WITS/SMART model. Section 5.4 summarises the important discussions in this chapter.

5.2 Partial Equilibrium Modelling

Panagariya (2000) developed the partial-equilibrium model (PE). Milner, Morrissey and McKay (2005) further extended the works of Panagariya on the partial-equilibrium analysis. Partial equilibrium models are powerful quantitative tools used to simulate and measure the effects of changes in trade policy.

Milner, et al. (2005) provide a simple analytical framework explaining the theory behind partial equilibrium modelling. Despite its shortcomings, a partial equilibrium framework is more

suitable as it allows the utilization of widely available trade data at the appropriate level of detail to capture the principle of special and differential treatment in the simulation analysis.

The partial equilibrium model contains caveats associated with a static partial-equilibrium analysis. The caveats measure the effects of specific changes in tariffs on trade flows, revenue, and welfare effects at a given point in time. PE models assess policy-reform impacts on sectors that are directly affected, commonly referred to as first-round effects.

PE models allow for detailed product-by-product analysis; and they are fairly easy to set up and implement. The other advantage of PE models is that they require minimal data, as only data on trade flows, tariffs, and elasticities are required.

The SMART model can either be solved with perfectly elastic export supply, as when world prices of each variety are given, or by assuming upward-sloping export supply curves. The SMART model incorporates three types of elasticities.

Firstly, when the supply elasticities are deemed to be infinite ($=\infty$), which means that an increase in demand for a given good will always be matched by the producers and exporters of that good without any impact on the price of the good. This assumption is reasonably realistic when the importer (Cote d'Ivoire) is a small market and the exporter (the rest of the world) consists of large industrialised economies.

Secondly, when import substitution elasticities record the rate of substitution between two goods with different origins. The Armington assumption is incorporated in the SMART model, meaning that similar goods from different countries are imperfectly substitutable. In SMART, the import substitution elasticity is considered to be 1.5 for each good.

Thirdly, when import demand elasticity measures the demand response to a shift in import price. Stern, Francis and Bruce (1976) revealed that in SMART analysis, the import demand elasticity varies at the HS-6 level.

Another important assumption made by the model is that of perfect competition, which, for example, means that tariff cuts are fully reflected in the prices paid by consumers.

Partial-equilibrium paradigms or models give a detailed product-by-product breakdown of the comprehensive impact; they are quite easy to set up and implement as noted by Mugano (2015). The other merits of partial-equilibrium paradigms are that they use minimal data in their computations.

A limitation of PE models is that they are static in nature, allowing only for a comparative static comparison of pre- and post-policy change, when all the other variables are held constant which is an over simplification of the real world (Fukunaga & Isono 2013). Thus, they ignore the second-round effects, as these models do not consider impacts of policy reforms on the wider economy, as well as inter-sectoral implications and exchange-rate effects (Veeramani, 2012).

Dynamic linkages and market feedbacks can be captured in general equilibrium (GE) models, which, therefore, are better tools, when dynamic effects and market linkages are deemed to be important determinants of the outcome.

The purpose of this study is to evaluate the static effects of trade liberalisation on Cote d'Ivoire. This implies that the demerits of the P.E model are invalid because this study does not need the second round effects.

Studies requiring analysis of second round effects use the general-equilibrium model (GEM) has the capacity to capture dynamic linkages and market feedbacks. The GEM, therefore, performs better when dynamic impacts and market linkages are seen to be important determinants of the outcome.

The General-equilibrium model is also not immune to criticisms. GE paradigms are criticised, since they are susceptible to aggregate bias (Bilal, Dalleau & Lui 2012). they work with numerous underlying assumptions, and have vast data requirements, among others.

The commonly used GE model and the database for analysing trade-policy changes, the Global Trade Analysis Project (GTAP), lacks disaggregated data for the majority of African countries, including Cote d'Ivoire (Onogwu and Arene, 2013). Only a few African countries are captured as individual countries; while the majority of them are presented as composite countries, such as the rest of Sub-Saharan Africa (Fukunaga & Isono 2013; Veeramani 2012; Francois & Pindyuk 2013; Makochehanwa 2012; Lee 2013).

However, in this study, the main focus is on the static effects of trade liberalisation. Hence, partial-equilibrium models emerge as the best available option. The partial-equilibrium method is an adequate tool to address the principle of special and differentiated treatment (S&D) in a detailed analysis of the trade data. The literature shows that the partial-equilibrium model, mainly the World-Integrated Trade Solution (WITS-SMART) model, has been extensively and successfully used to quantify the static effects of various FTA and customs unions.

This study used the World-Integrated Trade Solutions/Software for Market Analysis and Restrictions on Trade (WITS/SMART) model, because of its strength in analysing the tariff effect of a single market on disaggregated product lines (Shinyekwa and Katunze, 2016; Kumar and Shahid, 2014; Karingi *et al.*, 2005; Balassa, 1975; Fukunaga and Isono, 2013; Lee, 2013; Veeramani and Saini, 2010; Francois and Pindyuk, 2013; Krueger, 1999; Makochehanwa, 2012; Bilal, Dalleau and Lui, 2012 and Onogwu and Arene, 2013).

The model also has the ability to analyse the effects of trade-policy reforms in the presence of imperfect substitutes (Othieno and Shinyekwa, 2011; Choudhry et al, 2013). Unlike other models, such as the GE, the WITS/SMART model is more adequate than homogenous goods model, when examining tariff preferences, as it avoids corner solutions (Othieno and Shinyekwa, 2011).

5.2.1 The Software for Market Analysis and Restrictions on Trade (SMART) Partial-Equilibrium Model

In this study, a World Integrated Trade Solution (WITS) and SMART model were applied in a partial-equilibrium framework. The WITS brings together various databases ranging from bilateral trade, commodity trade flows and various and types of trade protection (Lang, 2006). According to Lang (2006), the WITS/SMART model uses the Common Format for Transient Data Exchange (COMTRADE) – a commodity-trade statistics; Trade Analysis Information systems (TRAINS)-tariff; para-tariffs and non-tariff measures; Integrated Data Base (IDB) and Consolidated Tariff Schedules (CTS) databases, which provide simulated analytical tools to simulate trade policy analysis, such as the effects of multilateral tariff cuts, free trade agreement, preferential trade liberalisation and ad hoc tariff changes (Lang, 2006).

The SMART model runs on information contained in the UNCTAD managed TRAINS database (Lang, 2006; Plummer, Cheong and Hamanaka, 2010; Othieno and Shinyekwa, 2011). SMART, therefore, uses TRAINS data for tariff (applied tariffs) and trade values collected in the COMTRADE database for simulation purposes.

The partial equilibrium SMART model was developed by UNCTAD and the World Bank during the 1980s, mainly to assess the impact of GATT rounds. The SMART model is contained in the World Integrated Trade Solution software (WITS) (Mugano, 2013). This model and the simulation tools are part of the WITS trade database and software suite provided jointly by the World Bank and the United Nations Conference on Trade and Development (Plummer, Cheong and Hamanaka, 2010).

The theory of this model is borrowed from Laird and Yeats (1986). SMART allows for the evaluation of the impact of a given trade policy change (measured in tariff) on the following variables, which are also the objectives of this study:

- Trade-creation effects;

- Trade-diversion effects;
- Net-trade effect (aggregate-trade creation and trade-diversion effects);
- Tariff-revenue variations; and
- Changes in consumer surpluses.

(i) Trade Creation

The explanation of the WITS/SMART theory used in this study is summarised from Laird and Yeats (1986). According to Laird and Yeats, trade creation captures the trade effects of liberalisation that lead to the displacement of inefficient producers in a given preferential trade area (FTA, for example). For trade creation to take place, it is assumed that there is full transmission of price changes when tariffs or NTBs (*ad valorem* equivalents) are disbanded. The study adopted equation (see equation 5.1.11) which was derived by Laird and Yeats (1986) to estimate trade-creation effects. In order to derive the trade-creation model, import demand and export supply functions and an equilibrating identity are formulated.

In this study, the import demand functions for country j , Cote d'Ivoire in this case, from country k of commodity i can be expressed as follows:

$$M_{ijk} = f(Y_j, P_{ij}, P_{ik}) \dots \dots \dots (5.1.1)$$

The export supply function of commodity i of country k to country j can be simplified as:

$$X_{ijk} = f(P_{ijk}) \dots \dots \dots (5.1.2)$$

At equilibrium, trade between the two countries in a partial-equilibrium model is given as:

$$M_{ijk} = X_{ijk} \dots \dots \dots (5.1.3)$$

In a free trade and customs union case, the domestic price of commodity i in country j (Cote d'Ivoire) from country k would change with the change in an *ad valorem* tariff as follows:

$$P_{ijk} = P_{ijk} (1+t_{ijk}) \dots \dots \dots (5.1.4)$$

The export revenues earned by k are given by:

$$R_{ijk} = X_{ijk} .P_{ijk} \dots \dots \dots (5.1.5)$$

The Trade-creation model, as Laird and Yeats (1986) presented it is done through the total derivation of equation 5.1.4, as shown in equation 5.1.6:

$$dP_{ijk} = P_{ijk} .dt_{ijk} + (1 + t_{ijk}) .dP_{ijk} \dots \dots \dots (5.1.6)$$

Now, the basic illustration for the elasticity of import demand with respect to the domestic price can be rearranged as follows:

$$\frac{dM_{ijk}}{M_{ijk}} = Em. \left(\frac{dP_{ijk}}{P_{ijk}} \right) \dots \dots \dots (5.1.7)$$

Substituting from expression (5.1.4) and (5.1.6) into expression (5.1.7) gives:

$$\frac{dM_{ijk}}{M_{ijk}} = Em. \left(\left(\frac{dt_{ijk}}{1 + t_{ijk}} \right) + \frac{dP_{ijk}}{P_{ijk}} \right) \dots \dots \dots (5.1.8)$$

The standard expression for the elasticity of export supply with respect to the world price can be rearranged as follows:

$$\frac{dP_{ijk}}{P_{ijk}} = \frac{\frac{dX_{ijk}}{X_{ijk}}}{Ex} \dots \dots \dots (5.1.9)$$

From expression (3) it follows that:

$$\frac{dM_{ijk}}{M_{ijk}} = \frac{dX_{ijk}}{X_{ijk}} \dots \dots \dots (5.1.10)$$

Finally, to derive the trade-creation effects, substitute (10) into (9), and the result into (8). This result is equivalent to exporting country k 's growth of exports of commodity i to country j . The expression for trade creation can then be rewritten as follows:

$$TC_{ijk} = M_{ijk} \cdot Em \cdot \frac{dt_{ijk}}{1+t_{ijk}} \cdot \left(1 - \left(\frac{Em}{Ex} \right) \right) \dots \dots \dots (5.1.11)$$

(ii) Trade Diversion

Trade diversion is the phenomenon that occurs in a free trade area, where efficient producers outside the FTA or customs union are displaced by inefficient producers, who are protected by the high tariff rate. The WAEMU FTA is used to show how trade diversion is evaluated in this study. Trade diversion would be the outcome if, as a result of the establishment of the WAEMU FTA, more suppliers from the rest of the world (ROW) into Cote d'Ivoire/WAEMU are displaced by inefficient producers from Cote d'Ivoire/WAEMU.

The formation of WAEMU FTA leads to reduction of tariffs to zero to WAEMU member States – without any changes in the tariffs facing the ROW exporters. The principle underlying the measurement of trade diversion in SMART is also explained in Laird and Yeats (1986). In order to derive trade diversion, the study considered the elasticity of substitution. The elasticity of substitution considered here is expressed as a percentage change in relative shares of imports from two different sources, due to a one per cent change in the relative prices of the same product from these two sources:

$$TD_{ijk} = \frac{M_{ijk}}{\sum M_{ijk}} \cdot \sum M_{ijk} \cdot \sum M_{ijk} \cdot Es \cdot \frac{\frac{d\left(\frac{P_{ijk}}{P_{ijk}}\right)}{\frac{P_{ijk}}{P_{ijk}}}}{\sum M_{ijk} + \sum M_{ijk} + \sum M_{ijk} \cdot Es \cdot \frac{d\left(\frac{P_{ijk}}{P_{ijk}}\right)}{\frac{P_{ijk}}{P_{ijk}}}} \dots (5.1.12)$$

(iii) Trade Expansion

In order to derive the total trade effect, trade creation and diversion are summed up (Laird and Yeats, 1986). According to Laird and Yeats (1986), it is possible to sum the results across a group of importers for single or groups of products, as well as for single sources of supply or groups of suppliers.

(iv) The Revenue Effect

In theory, the tariff revenue is given as the product of the tax (tariff rate in this case) and the tax base (the value of imports). Thus, before the change in the *ad valorem* incidence of the trade barriers, the revenue is given as:

$$dR_{ijk} = P_{ijk} \cdot dX_{ijk} + X_{ijk} \cdot dP_{ijk} \dots \dots \dots (5.1.13)$$

Dividing the left hand side (LHS) of (5.1.13) with the LHS of expression (5.1.5) and the right hand side (RHS) of (5.1.17) by the RHS of (5.1.5) gives:

$$\frac{dR_{ijk}}{R_{ijk}} = \left(\frac{P_{ijk} \cdot dX_{ijk} + X_{ijk} \cdot dP_{ijk}}{P_{ijk} \cdot X_{ijk}} \right) \dots \dots \dots (5.1.14)$$

Reducing and substituting from expression (10) gives:

$$\frac{dR_{ijk}}{R_{ijk}} = \left(\frac{dM_{ijk}}{M_{ijk}} \right) + \left(\frac{dP_{ijk}}{P_{ijk}} \right) \dots \dots \dots (5.1.15)$$

Alternatively, this can be written:

$$\frac{dR_{ijk}}{R_{ijk}} = \left(\frac{dt_{ijk}}{1 + t_{ijk}} \right) \cdot Em \left(\frac{1 + Ex}{Ex - Em} \right) \dots \dots \dots (5.1.16)$$

(v) The Welfare Effect

The WITS/SMART model is used to estimate the welfare effects on Cote d'Ivoire. Essentially, the welfare effect is mainly attributed to the consumers' benefit in the importing country, as a result of lower import prices due to trade liberalisation. This allows consumers to substitute more expensive domestic or imported products with the cheaper imports that are affected by the relevant tariff reduction. Increased imports lead to a net welfare gain that can be thought of as the increase in consumer welfare; and it is measured as follows:

$$W_{ijk} = 0.5(dt_{ijk} \cdot dM_{ijk}) \dots \dots \dots (5.1.17)$$

The coefficient of 0.5 captures the average between the *ad valorem* incidents of the trade barriers before and after their elimination/reduction (Laird and Yeats, 1986). Equation (5.1.13) assumes that the elasticity of export supply is infinite. This assumption holds for Cote d'Ivoire, since it is a small country, which has no influence on world prices.

5.2.2 WITS/SMART Assumptions and Relevance to Cote d'Ivoire

SMART relies on the Armington assumption in modelling consumer behaviour (Karingi *et al.*, 2005; Karingi *et al.*, 2006; Fukana and Isono, 2013; Mugano, 2014; Lang, 2006; Othieno and Shinyekwa, 2011; Fukunaga and Isono, 2013; Lee, 2013; Veeramani and Saini, 2010; Francois and Pindyuk, 2013 and Lewis *et al.*, 1999).

On the supply side, the SMART set-up is that, for a given good, different countries compete to export to another given country. The focus of the simulation exercise is on the composition and volume of imports into that country. SMART assumes infinite export supply elasticity (that is degree of responsiveness of each foreign exporter's supply to changes in the price) with a value

of 99 (Karingi *et al.*, 2005; Karingi *et al.*, 2006; Lang, 2006; Othieno and Shinyekwa, 2011; Balassa, 1967; Fukunaga and Isono, 2013; Lee, 2013; Veeramani and Saini, 2010; Francois and Pindyuk, 2013; Krueger, 1999; Busse *et al.*, 2004; Makochehanwa, 2012; Bilal, Dalleau and Lui, 2012; Onogwu and Arene, 2013 and Lewis *et al.*, 1999).

In other words, the world price of each export variety is exogenously determined, so that exporters are assumed to be price-takers. This implies that changes in the level of demand in Cote d'Ivoire do not affect world prices; and exporters could continue supplying at any level of Ivorian demand. Considering the fact that Cote d'Ivoire is a small player in the global trade arena, the assumption of infinite export supply elasticity is retained under this study.

On the demand side, SMART relies on the Armington assumption, which is based on imperfect substitution between different import sources with different varieties. This means that goods, defined at the harmonised system (HS) 6 digit level, imported from different countries, although similar, are imperfect substitutes. In this study, a value of 1.5 for import substitution elasticity was used for each good. The Armington assumption of imperfect substitution is retained for the purpose of this study.

This assumption has a huge implication to preferential agreements, since such arrangements would not result in a complete shift of import demands to beneficiary countries.

5.2.3 Scenarios

The purpose of this study is to analyse the impact of different trade-reform scenarios. The study considered the following scenarios:

- The impact of ECOWAS FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Cote d'Ivoire using a WITS/SMART model is investigated. In this regard, a value of 0 per cent is applied to all tariff lines on Ivorian imports from ECOWAS member States;

- The impact of ECOWAS customs union on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Cote d'Ivoire using a WITS/SMART model is evaluated. In this regard, a CET of 0 per cent for essential social commodities, 5 per cent for raw materials and capital goods, 10 per cent for intermediate goods, 20 per cent for finished goods, and 35 per cent for specific goods for economic development imported by Cote d'Ivoire from countries outside the ECOWAS region, is applied;
- The impact of WAEMU FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Cote d'Ivoire using a WITS/SMART model is investigated. In this regard, a 0 per cent is applied to all tariff lines imported by Ivorian from WAEMU member States;
- The impact of WAEMU customs union on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Cote d'Ivoire using a WITS/SMART model is investigated. In this regard, a CET of 0 per cent for essential social goods, 5 per cent for both raw materials and specific inputs, 10 per cent for intermediate goods, and 20 per cent for finished goods imported by Cote d'Ivoire from countries outside WAEMU region is applied;
- The impact of WTO FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Cote d'Ivoire using a WITS/SMART model is evaluated. In this regard, a 0 per cent is applied to all tariff lines imported by Cote d'Ivoire from WTO member States;
- The impact of EU FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Cote d'Ivoire using a WITS/SMART model is evaluated. In this regard, a 0 per cent is applied to all tariff lines imported by Cote d'Ivoire from EU member states; and
- The impact of Bilateral FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Cote d'Ivoire using a WITS/SMART model is investigated. In this regard, a 0 per cent is applied to all tariff lines imported by Cote d'Ivoire from the top ten major trading partners (South Africa, Ghana, India, China, Nigeria, France, USA, Netherlands, Germany and Belgium).

The fact that a static model is used implies that two situations are needed: the situation before trade policy changes being investigated (i.e., the year with the most recent available data, 2012).

In this study, trade conditions, which were last used in 2012 under the MFN rates, were compared with a situation of free trade agreement (100 per cent trade liberalisation) and customs union with recommended CETs. For a customs union, 0 per cent was applied for essential social goods, 5 per cent for capital goods and raw materials, 10 per cent for intermediate goods, and 20 per cent for finished goods. Obviously the trade conditions in 2012 differed from those of the FTA and the customs union situation; hence, trade changes were established in the form of trade creation, trade diversion, changes in imports and exports and changes in revenue and welfare.

5.2.4 Sensitivity Analysis and Robustness Test

SMART's results may be sensitive to the modelling assumptions and parameter values used. SMART does not provide a built-in sensitivity analysis. The researcher performed this manually by changing parameter values over a reasonable range, as suggested by Plummer, Cheong and Hamanaka (2010) and (Zgovu and Kweka, 2009).

The price elasticities of demand for Cote d'Ivoire were obtained from Stern (1976), and the Armington elasticities from Takarick (2010). The uncertainty as to the actual values for the Armington and demand elasticities implied that rigorous sensitivity analysis was required to ensure the robustness of the results (Zgovu and Kweka, 2009, Plummer, Cheong and Hamanaka, 2010; Waglé, 2011).

Firstly, a 'base-case' simulation was run using the elasticities presented in Table 5.1.

Table 5. 1: Elasticities Used in Sensitivity Analysis

Elasticity	Lower Bound	Base – case***	Upper bound	Worst case
Substitution	0.5	1.44	2	6
Export Supply	89.1	99	99**	99**
Import Demand*	2.7	1.44	3.3	6

* Stern (1976), ** Retained as it is infinite, ***Takarick (2010)

Given the possible sensitivity of the models' results to the above value, the simulations were re-run under various assumptions (see Table 5.1). Upper bounds and lower bounds were established for the various elasticities. The base case was re-run, replacing each of the elasticities in turn with its upper- and lower-bound values. Given that the objective of the study was to evaluate the highest likely impact of the trade reforms on Cote d'Ivoire, a 'worst case' scenario was devised, using the upper-bound values.

5.2.5 Data sources and manipulation

The following data were used in the SMART model in this study: import values from each foreign partner; tariffs encountered by each foreign partner's import-demand elasticity for the commodity; export-supply elasticity for the commodity, and substitution elasticity between the different varieties of the commodity.

These data elements were accessible, as they are built into the WITS supported by the COMTRADE, TRAINs, IDB and CTs databases. These are real import figures reported by countries (in US\$) at customs points at different product levels. In periods when the Cote d'Ivoire Institute of national Statistics failed to submit trade data, mirrored data were used. Mirrored data are data submitted by Cote d'Ivoire's trading partners, which are used as a proxy for Cote d'Ivoire's trade information. For example, Cote d'Ivoire imports from Ghana reported to the International Trade Centre would be considered as Kenyan exports.

The UN COMTRADE has all the trade information for Cote d'Ivoire that is needed for this work, ranging from exports, imports, tariffs and non-tariff instruments. WITS software, which is hosted by the World Bank, was applied in this work.

The total of 143 import-trading partners of Cote d'Ivoire in 2015 are organised into ten groups: India; China; ECOWAS Custom Union; ECOWAS FTA, WAEMU Custom Union; the United States of America; Malaysia; the European Union; South Africa, Japan and the Rest of the World (ROW). The baseline scenarios assume an export substitution elasticity of 1.5, domestic substitution elasticity of 1, and an import-demand elasticity of 0.5.

5.3 Summary

The chapter has explored and presented the model-specification estimation procedures used in analysing the impact of trade liberalisation on Cote d'Ivoire. The empirical aspects discussed in this chapter include the partial-equilibrium model and the WITS/SMART model. Trade creation and diversion, trade expansion, revenue effect and welfare-effect models were also discussed.

The partial-equilibrium model has all the caveats associated with a static partial-equilibrium analysis. The partial equilibrium model allows for the evaluation of various trade policy regimes on government revenue, welfare, trade creation and diversion, all of which are the objectives of this study. For the purposes of this study, the WITS/SMART model was the applied partial-equilibrium framework. The WITS brings together various databases ranging from bilateral trade, commodity trade flows and various types of trade protection (Lang, 2006).

WITS also integrates the analytical tools that support the simulation analysis. SMART allows room for the evaluation of the effect of a given trade-policy change (measured in the tariff) on the trade creation, trade diversion, tariff-revenue variation and change in consumer surplus. This is an essential feature of the WITS/SMART model and these outcomes are part of the research objectives of this study.

SMART allows the researcher to evaluate the impact of a given trade policy change (measured in tariff) on the trade creation, trade diversion, tariff-revenue variation and change in consumer surplus. This is an important capability of the WITS/SMART model, as these outcomes are part of the research objectives of this study.

The next chapter will discuss the empirical findings and analysis of the revenue and welfare implications of the ECOWAS customs union and the ECOWAS FTA on Cote d'Ivoire. In this section, there will be a presentation of the SMART simulation results and their analysis. This is aimed at addressing the research question posed in the study.

CHAPTER SIX

THE IMPACT OF ECOWAS COMMITMENTS ON COTE D'IVOIRE

6.1 Introduction

Chapter Six presents the empirical findings and analysis of the implications of the ECOWAS customs union and ECOWAS FTA on Cote d'Ivoire. In this section, the study has estimated the impact of these trade-policy regimes on trade creation and diversion, imports, exports, revenue and welfare in Cote d'Ivoire. The analysis was conducted using the WITS/SMART model. The year of 2014 was adopted as a base year for simulation, using trade information databases, such as TRAINS, COMTRADE and WTO-IDB.

In this study, the SMART model was used, based on the information contained in the UNCTAD's TRAINS database. The year 2014 was chosen because that is the latest year for Cote d'Ivoire in the WITS/SMART software for Cote d'Ivoire. For the ECOWAS customs union, the WITS/SMART model has used the common external tariff, as specified in the ECOWAS nomenclature for social goods, raw materials and capital goods, intermediate goods and finished goods, and specific goods as 0 per cent, 5 per cent, 10 per cent, 20 per cent, and 35 per cent respectively. For ECOWAS FTA, a 0 per cent is applied to all tariff lines imported by from ECOWAS members. These tariffs (for ECOWAS FTA and ECOWAS customs union) were applied in the WITS/SMART model against the actual data supplied by the Cote d'Ivoire customs authorities in 2014, saved in the TRAINS databases.

Because the CET and FTA tariffs are different from the 2014 applied rates, this therefore, enabled this study to evaluate the impact of ECOWAS customs union and ECOWAS FTA on trade creation and diversion, revenue, imports, exports and welfare, which are the objectives of this study. The chapter is structured as follows: Section 6.2 examines a comparison of Cote d'Ivoire structure and ECOWAS CET. Section 6.3 discusses the WITS/SMART model

simulation results for ECOWAS customs union Section 6.4 discusses the WITS/SMART model simulation results for ECOWAS FTA. Section 6.5 provides summary of the chapter.

6.2 A Comparison of Cote d'Ivoire's Tariff Structure and the ECOWAS CET

Cote d'Ivoire as many other low income countries depends heavily on trade taxes as a source of revenue. Cote d'Ivoire's tariff structure is more complex than that of the ECOWAS CET. The country is among the few countries in the region with high tariffs, some of which are above 100 per cent. What this means is that the country has to move from its current regime – characterised by a large tariff dispersion – in order to comply with the 20 per cent dispersion under the ECOWAS CET.

In Cote d'Ivoire tariff regime, the 20 per cent band is the most significant, with 2165 tariff lines, which translates into 36.7 per cent of the total tariff lines. The 5 per cent tariff band comes second, at 36.37 per cent of the total tariff lines, and then the 10 per cent band at 23.27 per cent of the total tariff lines, the 35 per cent band at 2.2 per cent of the total tariff lines and the 0 per cent tariff band at 1.44 per cent of the total tariff lines (ITC, 2012).

Cote d'Ivoire custom duties rate follows that of the ECOWAS and ranges from 0 per cent to 35 per cent. However, it is important to note that goods are also subjected to VAT (18 per cent), community levy (0.5 per cent), and statistical duty (1 per cent) upon imports (MOC, 2014). This implies that these tariff lines have to be adjusted upwards or downwards, respectively, in order to conform to the CET.

6.3 A Comparison of Cote d'Ivoire's Tariff Structure with the ECOWAS FTA

Cote d'Ivoire's tariff structure is more complex compared to the ECOWAS FTA. The country is among the few countries in the region with high tariffs some of which are closed to 100 percent. Only 85 tariff lines, that is, 1.44 percent of total tariff lines are zero rated duties (see table 2.2). It therefore means that Cote d'Ivoire has 98.56 percent of its tariff lines remaining that has to be liberalised.

6.4 The SMART Model Simulation Results

This section presents the results of the impact of ECOWAS customs union and ECOWAS FTA on trade creation and trade diversion, imports, exports, revenue and welfare effects using SMART simulations.

6.4.1 The ECOWAS Customs Union

The study evaluates the impact of an ECOWAS customs union on Cote d'Ivoire. Specifically, the implication of the ECOWAS customs union on trade creation and trade diversion, revenue, welfare, imports and exports, which are the objectives of this study, are discussed in this section.

(a) Trade Creation and Trade Diversion

Trade creation means that more efficient or lower-cost producers in any of the ECOWAS countries are allowed to displace the less efficient or higher-cost producers in Cote d'Ivoire; and consumers, therefore, can benefit from these lower prices (Bonga, 2014).

However, some producers in Cote d'Ivoire would be negatively affected, as their products are replaced by products efficiently produced in other countries in the ECOWAS region. This implies that Ivorian industries have to improve their production efficiency and sharpen their competitive edge in preparation for the customs union. Trade diversion, on the other hand, implies that more efficient suppliers from outside the ECOWAS customs union are displaced by less efficient producers within the customs union (Andriamananjara, 2011).

This would be costly for the country, as revenue that could have been generated from imports from outside the ECOWAS region, is lost; and the products become more expensive, since they would be sourced from higher-cost producers.

Using the simulation results from the WITS/SMART model, Table 6.1 shows the trade creation and trade-diversion effects of the adoption of the ECOWAS CET by Cote d'Ivoire.

Table 6. 1: Trade Creation and Trade-Diversion Effects of the ECOWAS CET on Cote d'Ivoire (US\$ Millions)

Product category	trade creation	trade diversion	total trade effect
Capital goods	0	0	0
Raw materials	988	0	988
Intermediate goods	504	0	504
Finished goods	0	0	0
Total	1492	0	1492

Source: Author's Own Calculations Based on Smart Simulations

As shown in Table 6.1, foreign firms are likely to displace local firms (trade creation) by US\$1.49 billion. Not all product categories have witnessed trade creation (see Table 6.1). Capital and finished goods did not experience any trade creation. This means that the country was not able to expand its trade with the ECOWAS members for this product category. This outcome has to be critically evaluated before the full adoption of the ECOWAS CET. The trade creation was observed in the raw materials as well as the intermediated goods. This is a welcome development to local consumers, since it results in the fall in prices, thereby creating a surplus for the consumer. However, trade creation has ripple effects on the local industry, as it can lead to the closure of companies, unemployment, and a vicious cycle of welfare loss, if government does not come up with a facility to resuscitate the affected companies.

The industries which are likely to be severely affected by ECOWAS CET are listed in Table 6.2 with their respective trade-creation values.

Table 6. 2: Commodities Affected by Trade Creation (US\$ Millions)

HS Code	Product Description	Value
020329	Animal and Animal Products	801
870300	Vehicles	167.41
852352	Electrical, Smart cards	22.35
730300	Metals, Tube and pipes	8.16
930700	Military weapons and artillery	7
871000	Tanks and other fighting vehicles	6.63

Source: Author's Own Calculations Based on SMART Simulations

The results confirm the outcome of the *ex ante* study undertaken by Olayinka (2014), which shows that the adoption of the Common External Tariff (CET) by the ECOWAS countries would result in trade expansion in Nigeria. The World Integrated Trade Solution (WITS) database provided the tariff data, while the world prices were sourced from the World Bank commodity price. Olayinka (2014) also used a CET of 35 per cent for capital goods, 5 per cent for raw materials, 10 per cent for intermediate goods, and 20 per cent for finished goods. His study reveals that the ECOWAS-CET reduced domestic prices of agricultural goods. In fact, the findings indicate that the CET has so far had a net positive effect on households in Nigeria, largely due to the gains from expenditure which would raise the country's national welfare.

There is no evidence of trade diversion in Cote d'Ivoire. The outcome is consistent with the findings of Shinyekwa and Katunze (2016), Mugano (2013), Cernat (2003) and the argument of Meade (1955), Kemp and Wan (1976) and Amponsah (2002) that some regional groupings CET are too weak to divert trade from third parties.

(b) The Revenue Effect

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$286.85 million if the ECOWAS CET is implemented (See table 6.3). This is not

significant compare to the total tax revenue collected in 2014 which amounted to US\$ 6.12 billion.

Table 6. 3: Revenue Effects of the ECOWAS CET on Cote d'Ivoire (US\$ Millions)

Product category	Revenue Effect
Capital goods	0
Raw materials	-247.11
Intermediate goods	-39.74
Finished goods	0
Total	-286.85

Source: Author's Own Calculations Based on Smart Simulations

Only raw materials and Intermediate goods would experience revenue losses. Cote d'Ivoire stands to lose US\$286.85 million of customs revenue if it implements the ECOWAS CET. The ECOWAS CET is higher than Cote d'Ivoire's bound tariff which currently stand at 14.9 per cent (ICTSD, 2012).

The outcome is consistent with the findings of Okonji (2015), who observed that Nigeria could lose US\$1.3 trillion in customs revenue if it adopts the ECOWAS CET because of the risks of being flooded by European products. The trade agreement will further impoverish the manufacturing sector and non-oil export could be the worst hit as the two sectors suffer from significant problem of lack of competitiveness.

Table 6. 4: Largest Loss in Revenue by Product (US\$ Millions)

HS Code	Product Description	Revenue Loss	% of Total Loss
01-05	Animal and Animal Products	-88.43	30.82
72-83	Metals	-52	18.12
16-24	Foodstuffs	-38.37	13.37
84-85	Machinery / Electrical	-34.27	11.95
06-07	Vegetable Products	-27.2	9.48
Other	Other commodities not listed above	-46.5	16.21
Total		-286.85	100

Source: Author's Own Calculations Based on Smart Simulations

Animal products, metals and foodstuffs are expected to be the major contributors of revenue losses in Cote d'Ivoire, with 30.82 per cent and 18.12 per cent and 13.37 per cent of total revenue loss, respectively. One of the reasons for these findings is that the agricultural sector in Cote d'Ivoire remains very protected with agricultural imports tariff attracting a duty rate of 14.6 compared to non-agricultural imports of 11.5 per cent (ICTSD, 2012). This rate is clearly higher than the proposed CET (5 to 10 per cent) and could have legal problem with regard to the existing commitment of Cote d'Ivoire.

(c) The Consumer Welfare Effect

One of the main arguments in favour of free trade is that consumers would benefit from lower prices. Whether or not this will occur depends on the extent of trade creation, as against trade diversion. As shown in Table 6.5, SMART simulation results reveal that Cote d'Ivoire would experience a gain in consumer welfare valued at US\$38.36 million by implementing the ECOWAS customs union. Olayinka (2014), investigated the distributional effects of the ECOWAS common external tariffs on Nigeria. The results show that The ECOWAS CET had net positive effects on the welfare of households, largely due to the gains from the expenditure basket.

Table 6. 5: Welfare Effects of the ECOWAS CET on Cote d'Ivoire (US\$ Million)

Product Category	Welfare Effect	Share in 2014 GDP* (%)
Capital goods	0	0
Raw Materials	49.2	0.14
Intermediate goods	37.03	0.10
Finished goods	0	0
Total	86.23	0.25

Source: Author's Own Calculations Based on Smart Simulations

The total gains in welfare are insignificant representing 0.25 per cent of 2014 GDP (see Table 6.5). Capital goods and finished goods did not register any significant gains if the ECOWAS customs union is implemented (see Table 6.5). This can be explained by the fact that capital goods and finished goods did not experience any trade creation, hence there was no improvement in welfare gains for those products.

(d) The Impact of ECOWAS Customs Union on Cote d'Ivoire's Exports

The impact of ECOWAS customs union can be evaluated from the export viewpoint, derived from the SMART simulations. Table 6.6 shows the impact of a full customs union on the export of raw materials, capital goods, intermediate goods and finished goods.

Table 6. 6: The Impact of ECOWAS Customs Union on Exports in Cote d'Ivoire (US\$ Millions)

Product Category	Exports Before	Exports After	Change in Exports
Capital Goods	3.12	3.12	0
Raw Materials	2213.23	2213.21	-0.02
Intermediate Goods	436	326	-110
Finished Goods	1.77	1.77	0
Total	2654.12	2554.1	-110.02

Source: Author's Own Calculations Based on Smart Simulations

Cote d'Ivoire's exports to ECOWAS are expected to plunge by US\$110.02 million. The fall in exports could have been attributed to the increase in the cost of raw materials and intermediate goods used in the production. With the coming into effect of a ECOWAS CET, intermediate rates need to be aligned to a higher rate of 10 per cent; yet most goods (raw materials and Intermediate goods) imported from ECOWAS into Cote d'Ivoire are currently enjoying the benefits of a free trade area. The rise in import tariffs is expected to negatively affect the competitiveness of raw materials exports, which constitute the bulk of Cote d'Ivoire exports.

Shinyekwa and Katunze (2016) found similar results in Rwanda and Burundi. They show that imposing a common external tariff on the East Africa Community (EAC) will result in poor trade performance by Rwanda and Burundi mainly because of their weak production capacity.

It is worth noting that Cote d'Ivoire's exports are dominated by raw materials and semi-finished goods (intermediate goods), amounting to more than 90 per cent of the total exports. This is consistent with the evaluation of Cote d'Ivoire trade performance (as discussed in Chapter 3). This is a worrying outcome for Cote d'Ivoire, considering the vulnerability of export revenue to volatile prices and the low income elasticity of exported primary goods.

(e) The Impact of ECOWAS Customs Union on Imports in Cote d'Ivoire

The tariff alignment, which comes with a CET is expected to affect Cote d'Ivoire's imports in two ways. Firstly, those tariff lines, which according to ECOWAS nomenclature, are expected to be phased down, this would have a positive impact on imports. Secondly, tariff lines, which have to be aligned upwards, are expected to negatively affect imports in Cote d'Ivoire. From this analysis, it is clear that the effect of ECOWAS CET on imports is not straightforward, hence the need to carry out an empirical research, which is one of the objectives of this study.

Table 6. 7: The Impact of ECOWAS Customs Union on Imports in Cote d’Ivoire (US\$ Millions)

Product Category	Imports Before	Imports After	Change in Imports
Capital Goods	184	184	0
Raw Materials	1371	5022	3651
Intermediate Goods	60	86	26
Finished Goods	524	524	0
Total	2139	5816	3677

Source: Author’s Own Calculations Based on Smart Simulations

Cote d’Ivoire’s imports are expected to increase by US\$ 3.67 billion (36.77 per cent) if a ECOWAS customs union is adopted (see Table 6.7). This increase has been mainly driven by raw materials and intermediate goods. The ECOWAS CET did not create any imports changes from capital and finished goods.

Cote d’Ivoire’s imports tariff ranges from 15 to 20 per cent. Hence a move to align these tariffs down to 20 per cent is not quite a significant move to the previous tariffs rate – thereby, resulting in no change from the imports of finished and capital goods.

The findings of Shinyekwa and Katunze (2016) confirms the results. They revealed that imports from outside the EAC region would increase after the adoption of a common external tariff by EAC member states.

This result is also confirmed by the findings of Simiyu (2017) in Kenya, the findings of Castro, Kraus and de la Rocha (2004) in Kenya and Tanzania. Castro, Kraus and de la Rocha (2004) estimated the impact of EAC customs union on member States using the SMART model. Their study shows that EAC CET would significantly increase imports into Kenya and Tanzania.

(f) Sensitivity Analysis and Robustness Tests

Given the uncertainty of the actual values for the Armington and demand elasticities implies that rigorous sensitivity analysis was required to ensure the robustness of the main results presented in the study. Initially, a ‘base case’ simulation was run, using the elasticities from Armington, Stern and Tokarick (as discussed in Chapter 5). Given the possible sensitivity of the models’ results to the elasticity values, the researcher had to re-run the simulations under varying assumptions. Upper-bound and lower-bound limits were established for various elasticities (see Table 5.1).

Finally, given that the aim of the study was to determine the largest likely impact of the ECOWAS CET on Cote d’Ivoire, a ‘worst-case’ scenario was devised, using the upper bound values by adding 4.

Appendix 1(a) reports on the sensitivity analysis and the robustness tests for the trade-creation effects in Cote d’Ivoire after the adoption of a ECOWAS CET. Reducing the trade elasticity value to 0.5, shows the change in the trade creation from the base case in Cote d’Ivoire. Likewise, increasing trade elasticities to 2 and 6 bring no changes to the trade creation. The outcome shows that Cote d’Ivoire’s total change in imports remains the same in value – although its composition changes, as economic agents are substituted across the various imports.

Appendix 1(b) reports on the sensitivity analysis and robustness tests on the revenue effect in Cote d’Ivoire after the implementation of ECOWAS CET. Reducing trade elasticity to 0.5 increases revenue loss by 99.85 per cent. Increasing trade elasticity values to 2 and 6 would, respectively, increase revenue this loss by 13.85 per cent, respectively. The resulting deviations from the middle ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 1(c) reports on the sensitivity analysis and robustness tests on the welfare effect in Cote d’Ivoire after the implementation of ECOWAS CET. Reducing the trade elasticity to 0.5 reduces the welfare gain by 4.4 per cent. Likewise increasing trade elasticity values to 2 and 6

reduces the welfare gain by 4.4 per cent. A less than 5 per cent margin of error can be argued to be conservative and feasible; and the resulting deviations from the middle ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(a) reports on the sensitivity analysis and robustness tests on exports in Cote d'Ivoire after the implementation of ECOWAS CET. Reducing the trade elasticity to 0.5 decreases exports by 0.08 per cent. Increasing the trade elasticity values to 2 and 6 would, respectively, decrease exports by 0.26 per cent and 0.81 per cent. The resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(b) reports on the sensitivity analysis and robustness tests on imports in Cote d'Ivoire after the implementation of ECOWAS CET. Reducing the trade-elasticity value to 0.5 shows no change in imports from the base case in Cote d'Ivoire. Likewise, increasing trade elasticities to 2 and 6 brings no changes to trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although its composition changes, as economic agents are substituted across the various imports.

6.4.2 ECOWAS Free-Trade Agreement

This section discusses Cote d'Ivoire tariff structure and the ECOWAS FTA, and the simulation results on the impact of ECOWAS FTA on Cote d'Ivoire. In this section, a discussion on the possible implications of a ECOWAS free-trade agreement on trade creation, trade diversion, revenue, welfare, imports and exports, which are some of the objectives of this study, will be discussed.

(a) Trade Creation and Trade Diversion

Trade creation means that more efficient or lower-cost producers in any of the ECOWAS countries could displace the less-efficient or higher-cost producers in Cote d'Ivoire; and consumers would therefore benefit from the lower prices (Viner, 2014).

However, some producers in Cote d'Ivoire would be negatively affected, as their products are substituted by products efficiently produced in other countries in the ECOWAS region. This implies that Ivorian industries have to improve their production efficiency and competitive edge in preparation for the FTA. Trade diversion, on the other hand, implies that more efficient suppliers from outside the ECOWAS FTA are displaced by less efficient producers within the ECOWAS FTA.

This would be costly for the country, as the revenue that would have been generated from imports from outside the ECOWAS region is lost, and the products become more expensive, since they would be sourced from higher-cost producers. Using the simulation results from the WITS/SMART model, Table 6.8 shows the trade-creation effects of the adoption of the ECOWAS FTA by Cote d'Ivoire.

Table 6. 8: Trade Creation Effects of the ECOWAS FTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Description	Trade Creation
240220	Cigarette containing tobacco	514
271011	Light oils and preparation	4.6
03379	Fish and Crustacean	3.8
252210	Quicklime	2.9
Other	Other products	12.93
Total		538.23

Source: Author's Own Calculations Based on Smart Simulations

As shown in Table 6.8, the coming into effect of the ECOWAS FTA is expected to result in ECOWAS firms expanding their trade into Cote d'Ivoire by US\$ 538.23 million. Trade creation is traditionally viewed as being positive for the consumer, as it represents the additional quantities that the consumers could afford thanks to the liberalisation (Lang, 2006). However, some of this increase in consumption may be at the detriment of national producers, if the goods concerned were purchased from national producers' *ex-ante*.

Products that bear the largest trade creation are cigarettes containing tobacco, light oils and preparation, fish and quicklimes (see Table 6.8).

There is no significant trade diversion in Cote d'Ivoire. The trade diversion from the ECOWAS FTA resulted in US\$25 million which is a small amount compared to the trade creation. This, therefore, means that ECOWAS member States level of efficiency is very low, such that the MFN rates applied to firms outside ECOWAS could not deter them from supplying the Ivorian market. This outcome is consistent with the findings of Kumar and Ahmed (2014), Mugano (2013), Cernat (2003) and the argument of Meade (1955), Ohyama (1972), Kemp and Wan (1976) and Amponsah (2002), who all discovered that some regional groupings' tariff rates are too weak to divert trade from third parties.

(b) The Revenue Effect

The implication of the ECOWAS FTA on member States' fiscal revenue is one of the contentious issues under discussion at the regional level. Kumar and Ahmed (2014) noted that a free trade agreement has a negative effect of tariff revenue. Hence, there are fears that the tariff cuts that would have to be implemented by most ECOWAS countries to conform to the FTA rates would result in tariff revenue shortfalls for most countries.

Cote d'Ivoire is among the countries that are supposed to undertake a huge transformation of their national tariff structures, in order to conform to the ECOWAS FTA rates. As demonstrated in Chapter 2, only 1.44 per cent of Cote d'Ivoire's tariff lines are zero-rated. This, therefore, means that 98.56 per cent of the tariff lines, would have to be liberalised.

Table 6.9 shows the revenue implications of the ECOWAS FTA on Cote d'Ivoire. The WITS/SMART simulations estimate that Cote d'Ivoire would have a total fiscal revenue loss of US\$28.9 million if the ECOWAS FTA is implemented. The size of this revenue loss is insignificant, as it is only 8.2 per cent of the 2014 GDP. However, it is worth noting that the revenue loss expected, as a result of the ECOWAS FTA, is insignificant, as it constitutes 0.47 per cent of the total tax revenue in 2014.

Although there are only 1.44 per cent of the tariffs that are zero-rated, it is clear from this result, that most tariffs are very low, and any movement to zero duties would not affect revenue significantly.

Table 6. 9: Revenue Effect of the ECOWAS FTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Description	Revenue Loss
240220	Cigarette containing tobacco	-3.5
271011	Lights oils and preparations	-2.4
30379	Fish and Crustaceans	-2.3
630900	Worn clothing and other worn articles	-1.7
Other	Other products	-19
Total		-28.9

Source: Author's Own Calculations Based on Smart Simulations

The major revenue loss comes from cigarette and lights oils and preparations, with a total loss of US\$5.9 million (see Table 6.9). This is confirmed by the study of Kumar and Ahmed (2014), who looked at the revenue impact of a SAFTA on Sri Lanka, Pakistan and Bangladesh. Their study revealed that in all three countries the revenue loss was insignificant.

This outcome also confirms the findings of Brenton, Hoppe and Uexkull (2007), who estimated the likely impact of COMESA FTA on Ethiopia, Madagascar, Malawi and Zambia. They found

that the impact of the COMESA FTA was insignificant, as all countries would be expected to lose less than 1 per cent of their total revenue.

(c) The Consumer-Welfare Effect

One of the main arguments in favour of free trade is that consumers would benefit from lower prices. Whether or not this would occur depends on the extent of trade creation, as against trade diversion (Mugano, 2015). As shown in Table 6.10, the SMART simulation results reveal that Cote d'Ivoire would experience a gain in consumer welfare valued at US\$37.8 million by implementing the ECOWAS FTA.

Table 6. 10: Welfare Effect of the ECOWAS FTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Description	Welfare Gains/ Loss
230220	Floors, meals and pellets, of fish or of rice	35.3
630900	Worn clothing and other worn articles.	0.2
271011	Lights oils and preparations	0.18
Other	Other products	2.12
Total		37.8

Source: Author's Own Calculations Based on Smart Simulations

The total gains in welfare represent 0.61 per cent of the 2014 GDP, which stood at US\$34 billion. This is quite insignificant. However, the contributions of these welfare gains come from the same sources that created trade in Cote d'Ivoire. This shows that there is a causal link between welfare gains and trade creation in Cote d'Ivoire. The main reason for this marginal gain in welfare is expected to be because the base year used to do the simulations in this study; that is, 2014 was almost at the end of the implementation of a ECOWAS FTA, which was expected to be fully implemented in 2000. However, the ECOWAS-wide FTA failed to be implemented.

This is also explained by the fact that 1.44 per cent of the Cote d'Ivoire tariff lines are within the 0 to 5 per cent band. This is a clear sign that Cote d'Ivoire is on course to implement a ECOWAS FTA.

This outcome, therefore, underscores the fact that ECOWAS FTA has no significant implications for the Cote d'Ivoire welfare. Kumar and Ahmed (2014) found similar results in South Asia Free Trade Agreement (SAFTA). Their results show that consumer surplus in Pakistan and India were small.

This is also consistent with the findings of McKay *et al.* (2005) and Karingi *et al.* (2005), who concluded that, although there are at present of net welfare gains in COMESA countries, these are insignificant.

(d) The Impact of ECOWAS FTA on Cote d'Ivoire's Exports

Trade liberalisation provides market access beyond boundaries to participating member States. In this case, Cote d'Ivoire through ECOWAS FTA, has an additional market of 14 member States. ECOWAS has a population of more than 335 million people with a Gross Domestic Product (GDP) of US\$510 billion (AFDB, 2015). ECOWAS represents a ready market for Cote d'Ivoire. Has Cote d'Ivoire been able to increase exports via ECOWAS? This is one of the research questions to be answered in this study.

Using the WITS/SMART model, exporters' point of views is used to evaluate whether Cote d'Ivoire has been able to increase its exports after implementing the ECOWAS FTA. Table 6.11 shows Cote d'Ivoire's exports before ECOWAS FTA, its exports after ECOWAS FTA, and the changes in exports and geographical distribution of Cote d'Ivoire's exports within the ECOWAS market.

Table 6. 11: Impact of ECOWAS FTA on Cote d'Ivoire Exports (US\$ Millions)

Partner	Exports Before	Exports After	Change in Exports	Share of Exports
Nigeria	2885.89	3410.3	524.41	91.21
Senegal	95.41	94.2	-1.21	2.52
Ghana	71.15	89.71	18.56	2.40
Guinee	44.21	53.84	9.63	1.44
Burkina Faso	30.33	33.21	2.88	0.89
Togo	24	28	4	0.75
Benin	12.45	12.48	0.03	0.33
Mali	6.84	7.64	0.8	0.20
Guinee Bissau	5.11	5.03	-0.08	0.13
Liberia	2.05	2.22	0.17	0.06
Niger	1.77	1.84	0.07	0.05
Sierra Leone	0.31	0.44	0.13	0.01
Gambia	0.061	0.072	0.011	0.00
Total	3179.581	3738.982	559.401	100

Source: Author's Own Calculations Based on Smart Simulations

The coming into effect of a ECOWAS FTA is expected to lead to a marginal increase in Cote d'Ivoire's exports of US\$559.401 million. This result is in line with the findings of Korinek and Melatos (2009). According to Korinek and Melatos (2009), the low level of trade among member states is caused by supply-side constraints and the lack of complementarities in the product traded, the lack of basic infrastructure, such as information, communication technologies, and poor roads the consequent lack of connectivity in most cases.

However, it is important to note that Cote d'Ivoire's trade in terms of exports via ECOWAS is skewed towards very few countries (three countries in particular). The lion's share of Cote

d'Ivoire's exports goes to Nigeria with 91.21 per cent. Senegal and Ghana followed with a total share of 2.52 per cent and 2.40 per cent of total exports, respectively (see Table 6.12). This outcome is consistent with the geographical distribution of Cote d'Ivoire's exports (as discussed in Chapter 3). It is therefore, clear that Cote d'Ivoire is failing to exploit any new markets in ECOWAS.

Table 6. 12: Cote d'Ivoire Major Exports to ECOWAS FTA (US\$ Millions)

HS Code	Product Description	Value
871419	Tanks and other fighting vehicles	2.12
240220	Cigarette containing tobacco	540.73
270900	Petroleum oils	2786
271113	Butanes	40
380891	Insecticides	9.24
870421	Dumpers designed for off-highway use	20.99
520852	Plain weave, weighing more than 100g/m ²	5.06
761490	Aluminium reservoir, tanks and similar containers	7.55
30379	Fish and crustaceans	2.49
250100	Salt and pure sodium chloride	10.69
330610	Dentifrices	5.55

Source: Author's Own Calculations Based on SMART Simulations

Table 6.12 shows that Cote d'Ivoire's major exports to ECOWAS FTA include petroleum oils, cigarette containing tobacco, butanes and insecticides. Most of these exports are destined to go to Nigeria. Again, Cote d'Ivoire's exports are mainly concentrated in primary and semi-produced commodities.

(e) The Impact of ECOWAS FTA on Cote d'Ivoire's Imports

Based on SMART simulations, Cote d'Ivoire's imports from ECOWAS are expected to record a marginal increase of US\$538 million, which is merely a result of the trade-creation effect. Table 6.13 shows the Cote d'Ivoire's major imports from ECOWAS after FTA.

Table 6. 13: Cote d’Ivoire’s Major Imports from the ECOWAS FTA (US\$ Millions)

HS Code	Product Description	Value
270900	Petroleum oils	2928
890520	Floating or submersible drilling or production platforms	2682
100630	Semi-milled or wholly milled rice	347
30379	Fish and Crustaceans and other aquatic invertebrate	194
300490	Medicaments containing vitamins or other antibiotics	178
100190	Seed	177
870323	Vehicles	161
100640	Broken rice	125
271113	Butanes	117
252310	Cement clinkers	107
240120	Tobacco partly or wholly stemmed	100
271011	Lights oils and preparations	98
30371	Sardines	89
843143	Parts for boring or sinking machinery	68
870421	Dumpers designed for off-highway use	64
Other	Other Products not specified above	5557
Total	Imports	12992

Source: Author’s Own Calculations Based on Smart Simulations

As shown in Table 6.13, petroleum products, boats and floating structures, rice, fish and crustacean and other aquatic invertebrate, antibiotics, wheat and meslin and vehicles are the top Cote d’Ivoire’s imports from ECOWAS market, with import bills of US\$2.92 billion, US\$2.68 billion, US\$347 million, US\$194 million, US\$178 million, US\$177 million, and US\$176 million, respectively. The lion’s share of these imports comes from Nigeria.

(f) Sensitivity Analysis and Robustness Tests

Given the uncertainty on the actual values for the Armington and demand elasticities means that rigorous sensitivity analysis was required to ensure the robustness of the results presented in the study. Initially, a ‘base-case’ simulation was run, using the elasticities from Armington, Stern and Tokarick (as discussed in Chapter 5). Given the possible sensitivity of the models’ results to the elasticity values, the researcher had to re-run the simulations under varying assumptions. Upper-bound and lower-bound limits were established for various elasticities (see Table 5.1).

Finally, given that the aim of the study was to determine the likely impact of ECOWAS CET on Cote d’Ivoire, a ‘worst-case’ scenario was devised using the upper-bound values by adding 4.

Appendix 3(a) reports on the sensitivity analysis and robustness tests for trade-creation effects in Cote d’Ivoire’s after the adoption of a ECOWAS FTA. Reducing the trade-elasticity value to 0.5 shows no change in trade creation from the base case in Cote d’Ivoire’s. Likewise, increasing trade elasticities to 2 and 6 brings no changes in trade creation. The outcome shows that Cote d’Ivoire’s total change in imports remains the same in value, although its composition changes as economic agents come into effect across various imports.

Appendix 3(b) reports the sensitivity analysis and robustness tests on the revenue effect in Cote d’Ivoire after the implementation of ECOWAS FTA. Reducing trade elasticity to 0.5 reduces the revenue loss by 27.14 per cent. Increasing trade elasticity values to 2 and 6 would, respectively, increase the revenue loss by 29.88 per cent and 37.17 per cent, respectively. The resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle ground estimates could be within sight of the potential sizes.

Appendix 3(c) reports the sensitivity analysis and robustness tests on the welfare effect in Cote d’Ivoire after the implementation of ECOWAS FTA. Reducing trade elasticity to 0.5 increases the welfare gain by 27.83 per cent. Increasing the trade elasticity values to 2 and 6 respectively, would increase the welfare gains by 37.78 per cent and 37.68 per cent. Although the margin of error is slightly higher than 10 per cent in the lower bound and worst-case scenario, the deviation

of welfare gains from the base results in absolute terms is insignificant (see appendix 3(c)). Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(a) reports on the results of the sensitivity analysis and the robustness tests on exports in Cote d'Ivoire after the implementation of ECOWAS FTA. Reducing trade elasticities to 0.5 is expected to cause an increase in exports by 16.98 per cent. Increasing trade elasticity values to 2 and 6, respectively, would increase exports by 17.99 per cent and 18.1 per cent. The resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle ground estimates could be within sight of the potential sizes.

Appendix 4(b) reports on the sensitivity analysis and the robustness tests on imports in Cote d'Ivoire after the implementation of ECOWAS FTA. Reducing the trade elasticity value to 0.5 shows no change in imports from the base case in Cote d'Ivoire. Likewise, increasing trade elasticities to 2 and 6, brings no changes in the trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although its composition changes as economic agents are introduced across various imports.

6.5 Summary

This chapter has presented the empirical findings and analysis of the revenue and welfare implications of the ECOWAS customs union and the ECOWAS FTA on Cote d'Ivoire. A detailed presentation of the SMART simulation results and their analysis was undertaken. This was aimed at the impact of the ECOWAS customs union and the ECOWAS FTA on trade creation, trade diversion, revenue, welfare, imports and exports, which are some of the objectives of the study.

All product categories reveal positive trade-creation effects totalling US\$1.49 billion, resulting in net welfare gains for Cote d'Ivoire if the country adopts ECOWAS CET. For the importing country, in this case Cote d'Ivoire, trade diversion is neutral. It does not affect the overall imported quantity; but it re-allocates the market shares among the exporting partners based on the new relative prices. The increase in imports from the ECOWAS countries is balanced by a

decrease in imports from the rest of the world, which results in the trade diversion being equal to zero. Thus, trade creation is the only influence on total social welfare.

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$286 million if the ECOWAS CET is implemented, which is shared across all product categories. The SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at US\$86.23 million by implementing the ECOWAS customs union. The total gains in welfare appear to be insignificant.

Cote d'Ivoire, on the one hand, is expected to witness a marginal decline in exports by 0.54 per cent. On the other hand, the country's imports are expected to increase by 0.87 per cent if it implements the ECOWAS customs union.

ECOWAS FTA will result in trade creation that should offset any trade diversion, resulting in net welfare gains for Cote d'Ivoire. If Cote d'Ivoire removes all the tariffs against imports from the ECOWAS region and imposes the agreed ECOWAS CET on non-ECOWAS countries, this would result in a trade expansion valued at US\$538.23 million. The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$28.9 million if the ECOWAS FTA is implemented. SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at US\$37.8 million by implementing the ECOWAS FTA. ECOWAS FTA is expected to stimulate Cote d'Ivoire's imports and exports by US\$538 million and US\$559.4 million, respectively.

Cote d'Ivoire's exports across the board (whether in customs union or an FTA) were dominated by primary and semi-processed products, such as vehicles, petroleum oils, tobacco, butanes, as well as insecticides and fish. Within ECOWAS, Cote d'Ivoire's trade was skewed mainly towards Nigeria.

The study tested for robustness of the results. Based on the reports of sensitivity analysis and robustness tests, the results show that deviations from the middle ground results are generally

insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

The next chapter presents the empirical findings and the analysis of the revenue, welfare, trade creation, exports and imports implications of the WAEMU customs union and WAEMU free trade agreement on Cote d'Ivoire. The first section will present the impact of the WAEMU customs union on Cote d'Ivoire; this will be followed by a discussion on the implications of WAEMU FTA for Cote d'Ivoire. The SMART simulation results and their analysis are aimed at addressing the research question posed in the study.

CHAPTER SEVEN

THE IMPACT OF WAEMU COMMITMENTS ON COTE D'IVOIRE

7.1 Introduction

Chapter Seven presents the empirical findings and the analysis of the implications of the WAEMU customs union and WAEMU FTA on Cote d'Ivoire. In this section, the study estimates the impact of various trade-policy regimes on trade creation and diversion, imports, exports, revenue and welfare on Cote d'Ivoire. The analysis was conducted using WITS/SMART model. The study adopted the year 2014 as a base year for simulation, using trade information databases, such as TRAINS, COMTRADE and WTO-IDB.

In this study, the SMART model was used, based on information contained in the UNCTAD managed TRAINS database. The year 2014 was chosen because that is the latest year for Cote d'Ivoire in the WITS/SMART software for Cote d'Ivoire. For a WAEMU customs union, the WITS/SMART model used the common external tariff, as specified in the WAEMU nomenclature for essential goods, raw materials, intermediate goods and finished goods as 0 per cent, 5 per cent, 10 per cent and 20 per cent, respectively. For WAEMU FTA, a 0 per cent is applied to all tariff lines trading with Cote d'Ivoire, and with the other 7 WAEMU members.

These tariffs (for WAEMU FTA and WAEMU customs union) applied in the WITS/SMART model against the actual tariffs applied by the Cote d'Ivoire customs authorities in 2014 were saved in the TRAINS databases. The chapter is structured as follows: Section 7.2 examines a comparison of Cote d'Ivoire's tariff structure and those of the WAEMU CET. Section 7.3 examines a comparison of Cote d'Ivoire's tariff structure with WAEMU FTA rates. Section 7.4 discusses the WITS/SMART model simulation results for the WAEMU customs union and WAEMU FTA. Section 7.5 provides a summary of the chapter.

7.2 A Comparison of Cote d'Ivoire's Tariff Structure and the WAEMU CET

The WAEMU customs union provides for the free movement of goods between member countries and application of a common external tariff (CET) on imports from other countries. WAEMU has member States with overlapping membership with ECOWAS (Diop, 2015). Hence, in the spirit of harmonisation of trade rules among the regional blocs to ease trade facilitation, the WAEMU CET has been harmonized with that of the ECOWAS CET. This study has used the common external tariff adopted by the WAEMU members since its inception in 2000.

Cote d'Ivoire's tariff structure and the WAEMU CET are both based on a cascading principle, whereby the duty charged is proportionate to the level of value added. Final goods are levied the highest rates, while raw materials and capital goods are charged lower tariff rates. This is done, in order to promote the manufacturing sector, and to protect the industries producing the finished products from outside competition.

In Cote d'Ivoire's CET tariff regime, the 20 per cent band is the most significant, with 2165 tariff lines, which translates into 36.7 per cent of the total tariff lines. The 5 per cent tariff band comes second, at 36.37 per cent of the total tariff lines, and then the 10 per cent band at 23.27 per cent of the total tariff lines, the 35 per cent band at 2.2 per cent of the total tariff lines and the 0 per cent tariff band at 1.44 per cent of the total tariff lines (ITC, 2012).

The tariff adjustment that should be undertaken to comply with the CET is likely to have a significant impact on the country's industrial performance, consumer welfare and revenue earnings. The effects will be discussed in the next section under the SMART simulation results.

7.3 A Comparison of Cote d'Ivoire's Tariff Structure and the WAEMU FTA

Cote d'Ivoire's tariff structure is more complex compared to the WAEMU FTA. The country is among the few countries in the region with high tariffs some of which are close to 100 percent. The country remains a very protective country with only 94.49 tariff lines, that is, 5.51 percent of

total tariff lines are zero rated duties (see table 2.2). It therefore means that Cote d'Ivoire has 94.49 percent of tariff lines remaining has to be liberalised.

7.4 SMART Model Simulation Results

A discussion of the results of the SMART Model simulations in terms of trade creation and trade diversion, imports, exports, revenue and welfare effects will be explored in this section.

7.4.1 WAEMU Customs Union

A discussion on the impact of a WAEMU customs union on Cote d'Ivoire is carried out in this section. Specifically, the impact of WAEMU CET on trade creation, trade diversion, revenue, welfare, imports and exports will be reviewed.

(a) Trade Creation and Trade Diversion

Trade creation means that more efficient or lower-cost producers in any of the WAEMU countries would displace the less-efficient or higher-cost producers in Cote d'Ivoire; and consumers would, therefore, benefit from lower prices (Viner, 2014).

However, some producers in Cote d'Ivoire would be negatively affected, as their products are substituted by products efficiently produced in other countries in the WAEMU region. This implies that Ivorian industries have to improve their production efficiency and competitive edge in preparation for the customs union.

Trade diversion, on the other hand, implies that more efficient suppliers from outside the WAEMU customs union are displaced by less efficient producers within the customs union. This will be costly for the country, as revenue that would have been generated from imports from outside the WAEMU region is lost, and the products become more expensive, since they would be sourced from higher-cost producers. This implies that consumers will be forced to accept lower quality goods (Andriamananjara, 2011).

Using the simulation results from the WITS/SMART model, Table 7.1 shows the trade creation and trade diversion effects of the adoption of the WAEMU CET by Cote d'Ivoire.

Table 7. 1: Trade Creation and Trade Diversion Effects of the WAEMU CET on Cote d'Ivoire (US\$ Millions)

Product Category	Trade Creation	Trade Diversion	Total Trade Effects
Raw Materials	1793	0	1793
Intermediate Goods	1043	0	1043
Finished Goods	0	0	0
Total	2836	0	2836

Source: Author's Own Calculations Based on Smart Simulations

The coming into effect of the WAEMU customs union is expected to create a total trade of US\$2.83 billion for Cote d'Ivoire from its WAEMU member States (see Table 7.1). The results confirm the outcome of the study carried out by Goretti and Weisfeld (2008), which shows that the implementation of the WAEMU customs union by Cote d'Ivoire is expected to result in trade expansion for the country.

The increase in imports is mainly made up of raw materials and intermediate goods, which Cote d'Ivoire imports in these categories, rising by US\$ 1.79 billion, US\$ 1.04 billion, respectively (see Table 7.1). Prior to the trade reforms within WAEMU, the Cote d'Ivoire market was protected from foreign competition through high tariffs and other non-tariff barriers, such as import quotas. Hence, the inefficient industries in Cote d'Ivoire were able to supply their domestic market. With trade liberalisation within WAEMU, commodities from WAEMU were able to dislodge Cote d'Ivoire products, which are inefficiently produced, from the market. This is welfare-enhancing to households in Cote d'Ivoire, as consumers are now able to increase their savings, as they now buy the same commodities at a lower price, thanks to trade liberalisation.

However, the Ivorian industry will be threatened with these imports; and if the Government of Cote d'Ivoire does not put in place a financial facility to assist industry in raising its competitiveness, the country will be faced with the closure of some of its industries. Table 7.2 shows the major trade-creating products.

Table 7. 2: Sensitive Sectors

HS Code	Product Description	Trade Creation
240220	Cigarette Containing tobacco	1287
481910	Cartons, boxes and cases, of corrugated paper or paper and paperboard	31
870332	Vehicles	22

Source: Author's Own Calculations Based on SMART Simulations

Industries, which are likely to be worst hit by trade liberalisation are those engaged in tobacco and manufactured tobacco substitutes, paper and paperboard and motor vehicles (sensitive sectors).

There was no evidence of trade diversion in Cote d'Ivoire. The outcome is consistent with the findings of Shinyekwa and Katunze (2016), Mugano (2013), Cernat (2003) and the arguments of Meade (1955), Ohyama (1972), Kemp and Wan (1976) and Amponsah (2002), who all found that some of the regional groupings in CET were too weak to divert any trade from third parties.

(b) Revenue Effect

The implication of the WAEMU CET on member States' fiscal revenue is one of the contentious issues under discussion at the regional level. There are fears that the tariff cuts that have to be implemented by most WAEMU countries to conform to the CET rates will result in tariff revenue shortfalls for most countries.

Table 7.3 shows the revenue implications of the WAEMU customs union on Cote d'Ivoire for the year 2014. The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$449 million as a result of the WAEMU CET for the year 2014. All the product categories will experience revenue losses. This outcome is consistent with the findings of Makochehanwa (2012), who observed that Zimbabwe will lose US\$71.2 million in customs revenue if it adopts the tripartite FTA under COMESA, SADC and East African Community (EAC).

Table 7. 3: Revenue Effect of WAEMU CET on Cote d'Ivoire (US\$ Millions)

Product Category	Revenue Loss
Raw Materials	-250
Intermediate Goods	-42.66
Finished Goods	-0
Total	-292.66

Source: Author's Own Calculations Based on SMART Simulations

The total loss in revenue represents 4.78 per cent of the total tax revenue collected in the same year. The revenue loss is, therefore, significant. This outcome is related to the findings by other researchers on customs unions in the region. The CET is likely to cause a tariff revenue reduction amounting to US\$349 million in the entire EAC region (Shinyekwa, and Katunze 2016). Shinyekwa and Katunze (2016) found that much of this losses was accounted by Uganda and Kenya.

Castro, Kraus, and de la Rocha, (2004) found similar result where they concluded that a CET is likely to cause a tariff revenue reduction of 11 per cent of customs revenue in the EAC region. Table 7.4 below shows the five products with the highest revenue losses.

Table 7. 4: Largest Loss in Revenue by Product (US\$ Millions)

HS Code	Product Description	Revenue Loss	% of Total Loss
87	Vehicles other than railway, and parts	-59.15	-13.17
03	Fish and crustacean	-32.13	-7.16
02	Meat	-22.44	-5
10	Cereals	-21.9	-4.88
07	Edible vegetables	-12.71	-2.83
Other	Other Products not specified above	-144.33	-49.31
Total		-292.66	100

Source: Author's Own Calculations Based on SMART Simulations

Vehicles and parts will show the largest loss in revenue in Cote d'Ivoire as a result of the WAEMU CET with a 13.17 per cent of total loss in revenue (see Table 7.4). This is followed by fish and crustaceans, meat, cereals, and edible vegetables with revenue losses of US\$32.13 million and US\$22.44 million, US\$21.9 million and US\$12.71 million, respectively.

In Cote d'Ivoire, vehicles currently attract total applied ad valorem tariff of 14.42 per cent. Under the WAEMU regime, vehicles and parts are treated as raw materials and intermediate goods, which means that they would attract a duty rate of 5 and 10 per cent. Other vehicles are treated as finished goods, and would attract a duty rate of 20 per cent.

(c) The Consumer-Welfare Effect

Deardorff (2014) defined consumer welfare as the distinct personal benefits that derived from consuming a particular good or service. This theory finds individual assessment and measurement to be crucial in determining the levels of satisfaction. It is significant to note that the rationale behind trade liberalisation is to improve the consumer welfare through lower prices.

In theory trade liberalisation has also had a positive effect on the producers' welfare. Thus, producers will specialize to produce for a larger market. Hindriks, Myles and Gareth (2013)

revealed that a higher level of competition within a region will improve the production technique.

As shown in Table 7.5, the SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at US\$ 8.67 million by implementing the WAEMU customs union. Makochehanwa (2012), estimating the implications of the COMESA/SADC/EAC tripartite agreement obtained the related results of a welfare gain of US\$14.4 million for Zimbabwe.

The product categories that exhibit welfare gains are raw materials and intermediate goods whereas finished goods did not experience any welfare gains. Intermediate goods recorded welfare gains of US\$4.08 million, followed by raw materials with a consumer surplus of US\$4.59 million.

The gain in welfare from intermediate goods and raw materials can be explained by the need to align import duty on raw materials to five per cent, and 10 per cent as is expected for intermediate goods. This would improve households' welfare.

Table 7. 5: Welfare Effect of the WAEMU CET on Cote d'Ivoire (US\$ Millions)

Product Category	Welfare Effect
Raw Materials	4.59
Intermediate Goods	4.08
Finished Goods	0
Total	8.67

Source: Author's Own Calculations Based on SMART Simulations

Welfare gains are insignificant in Cote d'Ivoire, as they represent only 0.14 per cent of 2014 GDP of US\$34.25 billion. This outcome is consistent with the findings from Shinyekwa and Katunze (2016).

Shinyekwa and Katunze (2016) observed that the introduction of the EAC customs union sensitive products will amounts to US\$ 3.1 billion for all EAC partner States. They also noted that consumer surplus in Kenya increased from US\$6 million to US\$20 million, which was insignificant.

(d) The Impact of WAEMU Customs Union on Cote d’Ivoire’s Exports

According to trade theory, trade liberalisation provides extra market access to member States in a free trade agreement. Has Cote d’Ivoire been able to penetrate new markets in WAEMU?

One of the objectives of this study is to evaluate the impact of the WAEMU customs union on Cote d’Ivoire’s exports. Table 7.6 shows the developments in Cote d’Ivoire’s exports before the customs union and after the WAEMU customs union.

Table 7. 6: Impact on Exports on Cote d’Ivoire after WAEMU CET (US\$ Millions)

Product Category	Exports Before	Exports After	Change in Exports
Raw Materials	324.56	306.61	-17.95
Intermediate Goods	265.55	261.86	-3.69
Finished Goods	379.06	379.06	0
Total	969.17	947.53	-21.64

Source: Author’s Own Calculations Simulations Based on SMART Simulations

Overall, Cote d’Ivoire’s exports into WAEMU are expected to fall by US\$ 21.64 million if the country adopts the WAEMU customs union (see Table 7.6). One possible explanation for the decline in exports is the lack of competitiveness of Cote d’Ivoire’s products especially on raw materials and intermediate goods. For finished goods, WAEMU member States under the WAEMU regime would import the same quantities of goods from Cote d’Ivoire before and after the WAEMU CET. From the SMART simulation analysis, the concentration of Cote d’Ivoire’s exports is made up of raw materials and intermediate goods, which by their nature are expected to fetch low export revenue.

This result is consistent with the findings of Shinyekwa and Katunze (2016) who examined the performance of sensitive products in member countries after the establishment of a common external tariff. They found that poor performance is revealed among cotton and clothing products which experiences a significant decline in intra-EAC trade.

(e) The Impact of WAEMU Customs Union on Cote d’Ivoire’s Imports

The Trade creation, which has been witnessed in this study, has a strong bearing on Cote d’Ivoire’s imports. The impact of the WAEMU customs union on Cote d’Ivoire’s imports is one of the objectives of this study. Table 7.7 shows how Cote d’Ivoire’s imports responded to the WAEMU customs union.

Table 7. 7: Market View on Cote d’Ivoire after WAEMU CET (US\$ Millions)

Product Category	Imports Before	Imports After	Change in Imports
Raw Materials	171	323	152
Intermediate Goods	124	163	39
Finished Goods	1.1	1.1	0
Total	334	507	173

Source: Author’s Own Calculations Based on SMART Simulations

Overall, Cote d’Ivoire’s imports from WAEMU after the WAEMU customs union are expected to increase by US\$ 173 million (see Table 7.7). This increase is caused by trade creation effects. The surge in imports is expected to be driven up mainly in raw material, such as tobacco products, fish and other crustacean, cartons, boxes and cases of corrugated paper.

This is supported by Shinyekwa and Katunze (2016) who noted that EAC partner countries have reduced imports from the rest of the world as EAC countries turn to regional suppliers after applying the CET to foreign suppliers.

(f) Sensitivity Analysis and Robustness Tests

Given the uncertainty on the actual values for the Armington and demand elasticities, this means that a rigorous sensitivity analysis was required to ensure the robustness of the results presented in the study. Initially, a ‘base-case’ simulation was run, using the elasticities from Armington, Stern and Tokarick (as discussed in Chapter 5). Given the possible sensitivity of the models’ results to the elasticity values, the researcher had to re-run the simulations under varying assumptions. Upper bound and lower bound limits were established for various elasticities (see Table 5.1).

Finally, given that the aim of the study was to determine the largest likely impact of WAEMU CET on Cote d’Ivoire, a ‘worst-case’ scenario was devised, using the upper-bound values by adding 4.

Appendix 2(a) reports on the sensitivity analysis and robustness tests for the trade-creation effects in Cote d’Ivoire after the adoption of a WAEMU CET. Reducing the trade-elasticity value to 0.5 shows a change in the trade creation from the base-case in Cote d’Ivoire. Likewise, increasing trade elasticities to 2 and 6 bring no changes to trade creation. The outcome shows that Cote d’Ivoire’s total change in imports remains the same in value, although the composition thereof changes as economic agents substitute across various imports.

Appendix 2(b) reports on the sensitivity analysis and robustness tests on the revenue effect in Cote d’Ivoire after the implementation of WAEMU CET. Reducing trade elasticity to 0.5 decreases the revenue loss by 0.28 per cent. Increasing the trade elasticity values to 2 and 6 would, respectively, increase the revenue losses by 0.21 per cent and decrease the revenue losses by 0.02 per cent, respectively. A 5 per cent margin of error on the lower bound and upper bound limits could be argued to be conservative and feasible; and the resulting deviations from the middle ground results would generally be insignificant.

Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 2(c) reports on the sensitivity analysis and robustness tests on the welfare effect in Cote d'Ivoire after the implementation of the WAEMU CET. Reducing trade elasticity to 0.5 brings no change in the welfare gains. Similarly, increasing the trade elasticity values to 2 and 6 respectively, bring no change in the welfare gains. The margin of error can be argued to be conservative and sensible; and the resulting deviations from the middle ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(a) reports on the sensitivity analysis and robustness tests on exports in Cote d'Ivoire after the implementation of WAEMU CET. Reducing trade elasticity to 0.5 decreases exports by 1.57 per cent. Increasing the trade elasticity values to 2 and 6, respectively, would decrease exports by 2.42 per cent and 4.24 per cent. The resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(b) reports on the sensitivity analysis and the robustness tests on imports in Cote d'Ivoire after the implementation of WAEMU CET. Reducing the trade-elasticity value to 0.5 shows no change in imports from the base case in Cote d'Ivoire. Likewise, increasing trade elasticities to 2 and 6 brings about no changes in trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although the composition thereof changes as economic agents replace one another across the various imports.

7.4.2 WAEMU FTA

The West African Economic and Monetary Union (WAEMU) is one of the most successful experiences of economic integration in Sub-Saharan Africa (Diop, 2015). The WAEMU forms one of the focal points shaping Egypt's increased export orientation towards the African continent through the West African gateway, thereby complementing the export promotion strategy in place with COMESA in East Africa and CEMAC in Central Africa, in addition to major countries with considerable weight, such as Nigeria and South Africa.

Cote d'Ivoire's adoption of the free trade agreement in 1996 and of the CET in 2000 reduced the country's tariff rates (Mansour and Graziosi, 2013). The free trade agreement included the social goods only. The WAEMU FTA however, includes all products and will come into effect with the removal of import tariffs and related non-trade barriers for WAEMU member states, in order to facilitate trade.

(a) Trade Creation and Trade Diversion

Regional trade agreements are expected to increase trade among member countries by lowering not only tariff rates but also non-tariff barriers (Hayakawa, Ito, and Kimura, 2015). Trade creation means that more efficient or lower-cost producers in any of the WAEMU countries could displace the less-efficient or higher-cost producers in Cote d'Ivoire; and consumers would, therefore, benefit from lower prices. However, some producers in Cote d'Ivoire will be negatively affected, as their products are substituted by products efficiently produced in other countries in the WAEMU region. This implies that Ivorian industries will have to improve their production efficiency and competitive edge in preparation for the FTA.

If changes in trade patterns due to the regional trade agreements displace lower cost imports from the rest of the world, trade diversion results (Korinek and Melatos, 2009). This implies that more efficient suppliers from outside the WAEMU FTA will be displaced by less-efficient producers within the customs union. This could be costly for the country, as revenue that would have been generated from imports from outside the WAEMU region is lost, and the products become more expensive, since they would be sourced from higher-cost producers. Using simulations results from the WITS/SMART model, Table 7.8 shows the trade-creation and the trade-diversion effects of the adoption of the WAEMU FTA by Cote d'Ivoire.

Table 7. 8: Trade Creation Effects of the WAEMU FTA on Cote d’Ivoire (US\$ Millions)

HS Code	Product Description	Trade Creation
271011	Lights oils and preparations	9.88
871190	Tanks and other armoured fighting vehicle	1.4
250100	Salt (including table salt and denatured salt)	1.28
630312	Blanket of synthetic fibres	0.72
Other	Other products	1.25
Total		14.53

Source: Author’s Own Calculations Based on SMART Simulations

The WAEMU FTA, once it comes into effect, will see the dismantlement of tariffs and non-tariff barriers. This would enable efficient foreign firms from WAEMU, who initially failed to enter the Ivorian market, due to trade barriers, would now be able to dislodge local firms (see Table 7.8). Exports of WAEMU member states into Cote d’Ivoire are expected to grow by US\$14.53 million (trade creation). Cote d’Ivoire’s major imports, which show a significant response to WAEMU FTA include lights oils and preparations, tanks and other armoured vehicles – with total export receipts of US\$9.88 million, US\$1.4 million, respectively. On the one hand, this has a negative effect on Cote d’Ivoire’s industry, especially those that are involved in the manufacture of those commodities with which WAEMU member States have created trade. On the other hand, consumers stand to benefit from cheaper imported products from WAEMU.

There was no significant effect of a trade-diversion. This result is consistent with the findings from previous researchers. Shinyekwa and Katunze, 2016; Mugano et al, 2013; Abdelmalik, Sandretto and Jallab, 2007; Cernat, 2003; Amponsah, 2002; Lewis et al, 1999.

These researchers noted that some regional groupings’ tariff rates were too weak to divert trade from third parties, thereby leading to a higher trade-creation effect than the trade-diversion effects.

(b) The Revenue Effect

The implications of the WAEMU FTA on member States' fiscal revenue is one of the contentious issues under discussion at the regional level. Since developing countries rely on tariffs more heavily than developed countries, there are fears that the tariff cuts that have to be implemented by most WAEMU countries to conform to the FTA rates will result in tariff-revenue shortfalls for most countries.

Table 7.9 shows the revenue implications of the WAEMU FTA on Cote d'Ivoire. The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$ 10.5 million when the WAEMU FTA is implemented.

Table 7. 9: Revenue Effect of the WAEMU FTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Description	Revenue Loss
27	Mineral fuels, mineral oils	-3.4
25	Salt	-1.8
87	Motor Vehicles	-1.1
85	Electrical Products	-0.34
Other	Other products	-3.86
Total		-10.5

Source: Author's Own Calculations Based on SMART Simulations

Cote d'Ivoire is expected to lose US\$ 10.5 million of customs revenue if it implements the WAEMU FTA. This is not a significant loss; it represents 0.17 per cent of the 2014 total tax revenue. This outcome is consistent with the findings of Makochekanwa (2012), who observed that Zimbabwe will lose US\$71.2 million in customs revenue if it adopts the tripartite FTA under COMESA, SADC and EAC.

Major losers in terms of revenue are mineral fuels, with a combined loss of US\$3.4 million, followed by salt, motor vehicles and electrical products. These items comprise the second

casualty of revenue loss for Cote d'Ivoire with a loss valued at US\$1.8 million, US\$1.1 million and US\$0.34 million, respectively. In Cote d'Ivoire, mineral fuels currently attract duty rates of about 60 per cent. Under the FTA mineral fuels from WAEMU would have to be duty-free. This represents a tremendous climb-down in the tariffs on mineral fuels.

(c) The Consumer-Welfare Effect

One of the main arguments in support of free trade is that consumers will benefit from lower prices. Whether or not this will occur depends on the extent of trade creation, as against trade diversion (Viner, 1950). For Cote d'Ivoire, this study shows that the total trade creation will surpass the trade diversion, which means that consumers will benefit from the implementation of the free trade agreement.

As shown in Table 7.10, the SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare, valued at US\$1.21 million, by implementing the WAEMU FTA. Major contributors to welfare gains are: Lights oils and preparations, tanks and other armoured fighting vehicle and worn clothing and other worn article (see Table 7.10).

Table 7. 10: Welfare Effect of the WAEMU FTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Description	Welfare Gains/ Loss
271011	Lights oils and preparations	0.43
871190	Tanks and other armoured fighting vehicle	0.064
630900	Worn clothing and other worn article	0.042
Other	Other products	0.674
Total		1.21

Source: Author's Own Calculations Based on SMART Simulations

Although the WAEMU FTA is welfare-improving in Cote d'Ivoire, it is still insignificant, as it represents a mere 0.02 per cent of 2014 GDP. This therefore, means that its impact will not be felt across the country. This is consistent with the findings of Keck and Piermartini (2005). They

revealed that SADC FTA results in welfare improvements, although in most cases these were insignificant.

(d) The Impact of WAEMU FTA on Cote d'Ivoire's Exports

The West African and Economic Union (WAEMU) was created in 1994 by seven West African countries using the CFA franc (common currency). The main purpose of the WAEMU is to intensify the competitiveness of economic and financial activities of west African Economic and Monetary Union (WAEMU, 2014). This is done by developing an open market and a harmonized legal environment. The WAEMU has implemented a common market based on the free movement of persons, goods, services, capital, and the right of establishment.

The WAEMU presents Cote d'Ivoire with a market access to 7 countries with a population of 80.34 million people, GDP of US\$88.55 billion and income per capita of US\$1.1 billion using purchasing-power parity. The WAEMU is an important market for Cote d'Ivoire, which has historically been a major source of imports, and an export destination (as outlined in Chapter 2). The question pertinent to this study is whether Cote d'Ivoire has been able to take advantage of this market access. Table 7.11 shows the impact of WAEMU FTA on Cote d'Ivoire's exports, as reported from the exporters' point of view.

Table 7. 11: The Impact of WAEMU FTA on Cote d'Ivoire's Exports (US\$ Million)

Partners	Exports Before	Exports After	Change in Exports	Share of Exports (%)
Benin	13.17	13.25	0.08	3.84
Mali	8.15	9.25	1.1	2.68
Senegal	166.64	169.28	2.64	49.16
Togo	64.13	76.16	12.03	22.12
Burkina Faso	64.02	69.29	5.27	20.12
Guinee Bissau	5.11	5.11	0	1.48
Niger	1.85	1.94	0.09	0.56
Total	323.07	344.28	21.21	100

Source: Author's Own Calculations Based on SMART Simulations

As shown in Table 7.11, Cote d'Ivoire's exports are expected to increase by US\$21.21 million.

Improvement in trade with WAEMU member States relations, which normally comes into effect with an FTA; Reduction in the cost of production for Cote d'Ivoire as it imports its inputs duty-free, thereby making its exports competitive in the WAEMU region; and improvement in trade facilitation, as the removal of duties reduces delays at the border emanating from thorough searches and corruption.

Synonymous with the ECOWAS situation, Cote d'Ivoire's exports are still concentrated in a few countries, such as Senegal, Togo and Burkina Faso, with these three countries absorbing 91.4 per cent of Cote d'Ivoire's exports. Cote d'Ivoire's major exports to WAEMU FTA include light oil and preparation, salt, tobacco and manufactured tobacco substitutes (see Table 7.12).

Table 7. 12: Cote d’Ivoire’s Major Exports after adopting WAEMU FTA (US\$ Millions)

HS Code	Product Description	Value
27	Lights oils and preparations	63.54
25	Salt	33.58
24	Tobacco and manufactured tobacco substitutes	24.57
15	Animal or vegetable fats and oils and their cleavage products	23.02
39	Plastic or article thereof	3.38
31	Fertilizers	2.62

Source: Author’s Own Calculations Based on SMART Simulations

(e) The Impact of WAEMU FTA on Cote d’Ivoire’s Imports

As Cote d’Ivoire opens up to WAEMU member States, the effects of trade creation and diversion will feed into Cote d’Ivoire’s import bill. Cote d’Ivoire’s imports are expected to increase by US\$11.23 million, as reported from the market point of view (see Table 7.13). The increase in imports is as a result of the cost of imports, due to tariff removal, which leads to an improvement in the cash-flows of economic agents.

As shown in Table 7.13, wheat, coal products, floating or submersible drilling, vehicle other than railway, medicaments containing vitamins or antibiotics, fish and crustacean are the top Cote d’Ivoire imports from WAEMU market with import bills of US\$7.49 billion, US\$3.58 million, US\$2.68 billion, US\$432 million, US\$355 million and US\$251 million, respectively. The lion’s share of these imports comes from Senegal, Burkina Faso and Togo.

Table 7. 13: The Impact of WAEMU FTA on Cote d'Ivoire's Imports (US\$ Millions)

HS code	Product Description	Value
10	Wheat	52
27	Coal Products	32
89	Floating or submersible drilling or production platforms	22
87	Vehicle other than railway	21
30	Medicaments containing vitamins or other antibiotics	15.5
03	Fish and Crustacean	15.1
24	Tobacco	11.2
63	Textile article	6.7
84	Nuclear reactors, Boilers	6.4
85	Electrical machinery and equipment	6.1
40	Rubber and articles thereof	5.59
72	Iron and steel	5.58
39	Plastic and articles thereof	5.4
69	Ceramic products	4.6
22	Beverages, spirit and vinegar	4.4
73	Articles of Iron and steel	11.2
Other		9.2
Total		344.77

Source: Author's Own Calculations Based on SMART Simulations

(f) Sensitivity Analysis and Robustness Tests

Given the uncertainty on the actual values for the Armington and demand elasticities implies that rigorous sensitivity analysis was required to ensure the robustness of the results presented in the study. Initially, a 'base-case' simulation was run using the elasticities from Armington, Stern and Tokarick (as discussed in Chapter 5). Given the possible sensitivity of the models' results to the elasticity values, the researcher had to re-run the simulations under varying assumptions. Upper-bound and lower-bound limits were established for various elasticities (see Table 5.1). Finally, given the aim of the study was to determine the largest likely impact of WAEMU FTA on Cote d'Ivoire, a 'worst-case' scenario was devised, using the upper-bound values and adding 4.

Appendix 3(a) reports on the sensitivity analysis and robustness tests for the trade-creation effects in Cote d'Ivoire after the adoption of a WAEMU FTA. Reducing the trade elasticity value to 0.5 shows no change of trade creation from the base case in Cote d'Ivoire. Likewise, increasing the trade elasticities to 2 and 6 brings about no changes to trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although its composition changes as economic agents substitute across the range of the various imports.

Appendix 3(b) reports on the sensitivity analysis and the robustness tests on the revenue effect in Cote d'Ivoire after the implementation of WAEMU FTA. Reducing trade elasticity to 0.5 may reduce the revenue loss by 0.061 per cent. Increasing the trade elasticity values to 2 and 6 would, respectively, increase the revenue loss by 0.03 per cent and 0.27 per cent. A 5 per cent margin of error on the lower bound and on the upper bound can be argued to be conservative and feasible, and the resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 3(c) reports on the sensitivity analysis and the robustness tests of the welfare effect in Cote d'Ivoire, after the implementation of the WAEMU FTA. Reducing trade elasticity to 0.5 does not change the welfare gains. Likewise increasing the trade elasticity values to 2 and 6 would, respectively, leaves the welfare gains unchanged to 1.21 per cent. The margin of error can be argued to be conservative and feasible; and the resulting deviations from the middle-ground results are insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(a) reports on the sensitivity analysis and the robustness tests on exports in Cote d'Ivoire after the implementation of the WAEMU FTA. Reducing trade elasticity to 0.5 may reduce exports by 0.041 per cent. Increasing trade elasticity values to 2 and 6 would, respectively, increase exports by 0.09 per cent and 1.1 per cent.

The resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(b) reports on the sensitivity analysis and the robustness tests on imports in Cote d'Ivoire after the implementation of the WAEMU FTA. Reducing the trade elasticity value to 0.5 shows no change in imports from the base case in Cote d'Ivoire. Likewise, increasing trade elasticities to 2 and 6 brings no changes to trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although the composition thereof changes, as economic agents substitute across the various imports.

7.5 Summary

This chapter has presented the empirical findings and analysis of the revenue, welfare, trade creation, exports and imports implications of the WAEMU customs union and the WAEMU free-trade agreement with Cote d'Ivoire. The first section presents the impact of the WAEMU customs union on Cote d'Ivoire. This was followed by a discussion of impact of WAEMU FTA on trade creation, trade diversion, revenue, welfare, exports and imports in Cote d'Ivoire, which are some of the objectives of the study.

The WITS/SMART simulations estimate shows that the adoption of a WAEMU customs union is expected to result in trade creation of US\$2.83 billion. This has a positive effect on welfare, as consumers would be afforded cheap products from the region, thanks to trade liberalisation. However, local industries displaced from the market could face closure if the government does not come up with a financial package to rescue them.

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$292.66 million if the WAEMU CET is implemented. Most of the product categories will experience revenue losses. Vehicles other than railway, and parts would reflect the largest loss in revenue for Cote d'Ivoire under the WAEMU customs union. In Cote d'Ivoire, vehicles currently attract total applied ad valorem tariff of 14.42 per cent. These rates are to be reduced to 0 per cent and 20 per cent, respectively, depending on the type of vehicle. Under the WAEMU custom union, the public transport vehicles, goods vehicles and ambulances are treated as finished goods and will attract a duty rate of 20 per cent.

SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at US\$8.67 million by implementing the WAEMU customs union. However, this welfare gain is insignificant. On imports, WAEMU CET is expected to drive up Cote d'Ivoire's imports by 2.48 per cent. However, exports are expected to fall marginally by 2.23 per cent.

The WITS/SMART simulations estimate shows that a total trade creation of US\$14.53 million is expected if Cote d'Ivoire completes the implementation of WAEMU FTA. The coming into effect of WAEMU FTA has a negative effect on revenue, as the country is expected to lose about US\$10.5 million of customs revenue. This was found to be insignificant.

SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at US\$1.21 million by implementing the WAEMU FTA. Major contributors to welfare gains are lights oils and preparations, tanks and other armoured fighting vehicle and worn clothing and other worn article. However, the impact of WAEMU FTA on welfare in Cote d'Ivoire was found to be insignificant. As expected, Cote d'Ivoire's exports and imports are anticipated to rise by 0.066 per cent and 2.48 per cent, respectively.

The study tested for robustness of the results. Based on the reports of sensitivity analysis and robustness tests, the results show that deviations from the middle ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Next chapter will present the empirical findings and an analysis of the revenue, welfare, imports, exports and trade-creation implications of the Economic Partnership Agreement (EPAs) for Cote d'Ivoire. The SMART simulation results and their analysis are aimed at addressing the research questions posed in the study.

CHAPTER EIGHT

THE IMPACT OF ECONOMIC PARTNERSHIPS ON COTE D'IVOIRE

8.1 Introduction

Chapter Eight presents the empirical findings and analysis of the implications of the EPAs on Cote d'Ivoire. In this section, the study has estimated the impact of trade-policy regimes on trade creation and diversion, imports, exports, revenue and welfare for Cote d'Ivoire. The analysis was conducted using the WITS/SMART model. The year of 2014 was adopted as a base year for simulation, using trade information databases, such as TRAINS, COMTRADE and WTO-IDB.

In this study, the SMART model was used, based on information contained in the UNCTAD-managed TRAINS database. The year 2014 was selected because that is the latest year for Cote d'Ivoire in the WITS/SMART software. In this study, a 0 per cent is applied to all tariff lines imported by Cote d'Ivoire from the 28 EU member states. These tariffs (for the EU) were applied in the WITS/SMART model against the actual tariffs applied by the Cote d'Ivoire customs authorities in 2014 and saved in the TRAINS databases.

This enables the study to estimate the impact of EPAs on trade creation and diversion, revenue, imports, exports, and on welfare; and these are the objectives of this study.

The chapter is structured as follows: Section 8.2 examines a comparison of Cote d'Ivoire structure and that of the EU FTA. Section 8.3 discusses the WITS/SMART model simulation results for EPAs. Section 8.4 summarises the chapter.

8.2 A Comparison of Cote d'Ivoire's Tariff Structure and those of the EU FTA

The country is among the few countries in the region with moderate tariffs, compare to other countries in West Africa. Under the EPA liberalisation schedule, during the first 5 years, Cote

d'Ivoire will have to liberalised more than half of agricultural imports from the EU which face a 20 per cent tariff rate (Morrissey, 2011).

It may be interesting to note Cote d'Ivoire's current negotiation with the EU towards an FTA has been moving at a slow pace. Cote d'Ivoire and the EU have both concluded the negotiation towards the FTA. Although the EU has ratified the agreement, Cote d'Ivoire has not yet ratified the agreement. Cote d'Ivoire's authorities are aware of what they stand to lose if no trade agreement with the EU is reached. One third of Cote d'Ivoire's exports to the EU are duty free and this generates millions of jobs especially in the vulnerable community (Agritrade, 2014).

A failure to reach a deal with the EU will raise tariff from zero to over 20 per cent. Such a move could wipe out the total country's exports to the EU.

The European Commission Directorate-General for Trade (2016) noted that one of the main concern is the preferential access for their main exports to the EU such as cocoa, banana and tuna considered as sensitive industries. This move implies that the country has to move from its current regime, which is characterised by a large tariff dispersion, in order to comply with the 0 per cent for most of its products.

8.3 The SMART Model Simulation Results

This section presents the results of the SMART Model simulations in terms of trade creation and trade diversion, revenue and welfare effects.

(a) Trade Creation and Trade Diversion

Trade creation is a term mostly used in international economics and trade. This exemplifies the case where trade flows are redirected, as a result of the formation of a free-trade agreement or a customs-union protocol (Eicher, Henn, and Papageorgiou, 2012). More efficient producers in the same regional trade agreement, like the EPAs, would displace less efficient and more costly producers. This would lead to the consumers benefiting from the lower prices (Viner, 2014).

This implies that Ivorian industries have to improve their production efficiency and competitive edge in preparation for the customs union. Trade diversion, on the other hand, implies that more efficient suppliers from outside the EPAs could be displaced by less-efficient producers within the EU.

Using the simulation results from the WITS/SMART model, Table 8.1 shows the trade-creation and the trade-diversion effects of the adoption of the EPAs by Cote d'Ivoire.

Table 8. 1: Trade-Creation Effects of the EU FTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Description	Trade Creation
100190	Cereal and other seeds	21.16
870333	Motor vehicles	18.22
20329	Meat and other edible meat	16
291733	Dinonyl or Didecyl orthophthalic acid	13.52
271019	Light oil and preparation and other	12.9
930190	Rocket launcher, grenade launcher and others	12.08
871000	Tanks and other armoured fighting vehicles	9.8
Other	Other products	218.82
Total		322.55

Source: Author's Own Calculations Based on SMART Simulations

The coming into effect of a full EPA would inevitably result in the dismantlement of tariffs and related non-trade barriers in Cote d'Ivoire, thereby exposing the previously protected industries to the EU member States. The free-trade agreement would enable the EU industries to penetrate Cote d'Ivoire's market.

As shown from the SMART Simulations, a total trade of US\$322.55 million is created by the EU (see Table 8.1). This is welfare-enhancing, as Cote d'Ivoire's consumers are now getting same commodities at a lower price, thereby helping them to save money (consumer surplus). However,

this is likely to have ripple effects on local industry, especially those involved in the manufacture of cereals and motor vehicles. The results are concurrent with the impact of free trade agreements in a number of regional cases of integration.

In Central Africa, Onogwu and Arene (2013) observed significant trade creation caused by EPAs. Karingi *et al.* (2005) carried out a study to estimate the impact of EPAs in SADC. Their studies show that SADC countries stand to see their imports increasing by US\$350.8 million (caused by trade-creation effects) if an EPA is implemented. Zgovu and Kweka (2008) estimated the impact of the EU FTA, using partial equilibrium model in Malawi and Tanzania. The researchers showed that Malawian and Tanzanian imports are likely to increase by 6 per cent and 1 per cent, respectively, if they adopt the EU FTA.

Mugano *et al.* (2013) also assessed the impact of EPAs on Zimbabwe in 2013. Their results were similar to this study, where the study determined 97 per cent trade creation and less than two per cent trade diversion. This confirmed that the coming of free-trade agreements would most likely lead to higher trade creation effects with a reduced trade-diversion effect in most cases.

There is no evidence of trade diversion in Cote d'Ivoire. The outcome is consistent with the findings of Shinyekwa and Katunze, 2016; Mugano *et al.*, 2013; Abdelmalik, Sandretto and Jallab, 2007; Cernat (2003); the argument of Meade (1955); Ohyama (1972); Kemp and Wan (1976) and Amponsah (2002). These authors noted that some regional groupings' tariff rates are too weak to divert trade from third parties.

(b) The Revenue Effect

The implications of the EPAs on member States' fiscal revenue is one of the contentious issues under discussion at the regional level. There are fears that the tariff cuts that have to be implemented by Cote d'Ivoire to EU countries to conform with the FTA rates will result in tariff revenue shortfalls for most countries. Cote d'Ivoire is among those countries that are supposed to undertake some transformation with regards to their national tariff structures, in order to conform to the EU FTA rates. Table 8.2 shows the revenue implications of the EU FTA on Cote

d'Ivoire. The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$294 million if the EU FTA is implemented. Major losers include: Motor vehicles with a loss of US\$25 million, Cereal and other seeds with a loss of US\$8.4 million, and Onions and Shallots with a loss of US\$6.63 million.

Table 8. 2: Revenue Effect of the EU FTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Description	Revenue Loss
870333	Motor vehicles	-25.12
100190	Cereal and other seeds	-8.44
70310	Onions and Shallots	-6.63
252310	Cement clinkers	-6.56
852910	Aerials and aerial reflectors of all kinds	-3.97
Other	Other products	-243.28
Total		-294

Source: Author's Own Calculations Based on SMART Simulations

The total tax revenue collected in 2014 was about US\$6.12 billion. The total revenue loss expected by Cote d'Ivoire after embracing the EPAs is insignificant, as it represents only 4.8 per cent of the total tax revenue collected in the same year.

The outcome of loss of revenue after member States have embraced the EPAs is consistent with the observations made by other researchers in the region.

More recent studies such as that of Onogwu and Arene (2013), looks at the welfare and revenue effect of the EPAs between Cape Verde and the EU. Their results show that Cape Verde stands to 35 per cent of the total revenue loss due to elimination of tariff on imports from the EU.

Bilal, Dalleau and Lui (2012) evaluated the impact of EPAs on selected countries in West Africa and Eastern and Southern Africa (ESA). Their results show that eight countries in West Africa (Benin, Cape Verde, Comoros, Djibouti, Gambia, Ghana, Guinea Bissau and Togo) are likely to

suffer a significant loss in tariff revenue – with the loss ranging from a 6 per cent reduction in total tax revenues to as much as 43 per cent. In the case of ESA region, Bilal, Dalleau and Lui (2012) noted that the impact on fiscal revenue was “modest”, while seven countries (Zambia, Swaziland, Nigeria, Namibia, Lesotho, Botswana and Malawi) have been estimated to incur a relatively “low” impact.

Lang (2006) also shows that in a case of an EU-ECOWAS EPA, the elimination of tariffs on imports from the EU will harm the government revenues in West Africa. Ghana, Nigeria and Togo stand a significant loss in revenue of around US\$193 million, US\$426 million and US\$35 million, respectively if they embrace full-trade liberalisation with the EU. Oxfam (2006) estimates shows that Zimbabwe stands to lose US\$18.431 million in revenue if it adopts the EPAs. The marginal difference between these results can be explained by the different time periods at which the researches were undertaken. The current research used the base year of 2014; while Oxfam used 2000.

(c) The Consumer-Welfare effect

One of the main arguments in favour of free trade is that consumers would benefit from lower prices. Table 8.3 below depicts the SMART simulation results. These reveal that Cote d’Ivoire could expect to experience a gain in consumer welfare valued at US\$22.82 million, by implementing the EPAs.

Table 8. 3: Welfare Effect of the EU FTA on Cote d'Ivoire (US\$ million)

HS Code	Details	Welfare Gains
870333	Motor vehicles	2.43
020329	Meat and other edible meat	1.72
481910	Cartons, boxes and cases, of corrugated paper or paperboard	1.07
271019	Light oil and preparation and other	0.63
Other	Other Products not Specified above	22.97
Total		28.82

Source: Author's Own Calculations Based on SMART Simulations

The total gains in welfare represent 0.05 per cent of 2014 GDP, which stood at US\$6.12 billion, which is quite insignificant. Onogwo and Arene (2013) found that the impact of EU FTA on Cape Verde net welfare was insignificant. Their study showed that consumer as well as national welfare would increase as a result of trade creation and consumption effects.

In West Africa, Lang (2006) observed that EU - ECOWAS FTA is improving its welfare, although this gain was insignificant. He found that the big economies of ECOWAS that is, Nigeria, Ghana and Côte d'Ivoire could experience substantial consumer surplus gains.

The related literature on the region reveals that EPAs are insignificant in accruing welfare gains. According to Karingi *et al.* (2005), SADC member states stand to gain a welfare surplus of US\$25.577 million if they adopt an EPA with the lion's share of the gains going to Angola (US\$14.940 million). The balance is shared amongst 14 SADC member States with the end result showing that individual country's welfare gain from EPAs is insignificant.

Zgovu and Kweka (2008) have revealed that the impact of EPAs on welfare gains were insignificant in Malawi and Tanzania. This is consistent with economic theory and is confirmed by the empirical literature.

(d) The Impact of EPAs on Cote d'Ivoire Exports

One of the long-standing arguments put forward by the EU in EPA negotiations is market access for Cote d'Ivoire's products. This research, amongst its objectives intends to evaluate the impact of the EU FTA, which comes via the EPAs on Cote d'Ivoire's exports. The results from the SMART Simulations are presented in Table 8.4.

Table 8. 4: The Impact of EPAs on Cote d'Ivoire Exports (US\$ Million)

Partner	Exports Before	Exports After	Change in Exports	Share of Exports (%)
Germany	255.47	307.41	51.94	9.45
United Kingdom	170.69	198.41	27.72	6.1
Sweden	57.12	64.64	7.52	1.98
Netherlands	241.75	288.22	46.47	8.86
Italy	154.35	187.32	32.97	5.76
Ireland	36.96	41.73	4.77	1.28
Belgium	165.87	189.1	23.23	5.81
France	1296.5	1497.3	200.8	46.06
Denmark	14.59	16.37	1.78	0.5
Spain	200.52	233.2	32.68	7.17
Cyprus	0.086	0.1	0.014	0.003
Finland	11.1	11.74	0.64	0.36
Malta	0.21	0.28	0.07	0.0086
Portugal	22.54	26.26	3.72	0.8
Greece	27.7	31.9	4.2	0.98
Hungary	10.82	12.17	1.35	0.37
Slovak Republic	2.46	3.03	0.57	0.093
Bulgaria	1.39	1.67	0.28	0.05

Partner	Exports Before	Exports After	Change in Exports	Share of Exports (%)
Czech Republic	18.5	20.92	2.42	0.64
Poland	28.67	33.8	5.13	1.03
Slovenia	0.72	0.82	0.1	0.02
Luxembourg	6.33	7.29	0.96	0.22
Lithuania	5.88	5.96	0.08	0.18
Austria	14.46	16.14	1.68	0.49
Estonia	1.11	1.39	0.28	0.042
Latvia	25	29	4	0.89
Croatia	5.14	5.59	0.45	0.17
Romania	14.87	18.45	3.58	0.56
Total	2790.8	3250.21	459.41	100.00

Source: Author's Own Calculations Based on SMART Simulations

The adoption of the EU FTA through EPAs was expected to lead to an increase in Cote d'Ivoire's exports to the EU by US\$459.41 million (see Table 8.4). France, Germany, Netherlands, Spain, and the United Kingdom, are Cote d'Ivoire's major export destinations in the EU. These five countries are expected to absorb 77.64 per cent of Cote d'Ivoire's total exports via the EU (see Table 8.4). The increase in exports to the EU could be as a result of the:

Increase in market access that would be available for Cote d'Ivoire, hence the surge in exports;

Competitiveness caused by a reduction in the cost of raw materials, which Cote d'Ivoire will import from the EU for the production of goods destined for the EU market. And, improvement in the relationship between Cote d'Ivoire and the EU caused by the mutually beneficial trade.

Table 8.5 shows Cote d'Ivoire's major exports to the EU. Cote d'Ivoire's major exports to the EU include Floating or submersible drilling or production platforms, Other seeds, Other

medicaments, Motor vehicles, Butanes and Light oil and preparation of US\$1.46 billion, US\$208 million, US\$124 million, US\$71 million, US\$40 million and US\$28 million, respectively.

Table 8. 5: Cote d'Ivoire's Major Exports after EU FTA (US\$ Millions)

HS Code	Description	Value
890520	Floating or submersible drilling or production platforms	1460
100190	Other seeds	208
300490	Other medicaments	124
870333	Motor vehicles	71
271113	Butanes	40
271019	Light oil and preparation	28

Source: Author's Own Calculations Based on SMART Simulations

(e) Impact of EPAs on Cote d'Ivoire's Imports

Cote d'Ivoire's imports are expected to be significantly influenced by trade creation and trade diversion. These are expected to occur due to preferential trade given to the EU after full EPAs. The impact of EPAs on imports in Cote d'Ivoire from the market view adopted from the SMART Simulation results are presented in table 8.6.

Cote d'Ivoire imports from the EU before the FTA amounted to US\$12.45 billion. However, with a completion of an FTA, Cote d'Ivoire's imports from the EU are expected to grow by US\$339 million to US\$12.79 billion. The increase in imports is expected and supported in theory, as it is as a result of the reduction of cost of imports, caused by the removal of import tariffs.

Table 8. 6: Cote d'Ivoire Major Imports from EU after FTA (US\$ Millions)

HS Code	Description	Value
870333	Motor vehicles	79
271019	Light oil and preparation	67
020329	Meat and other edible meat	32

Source: Author's Own Calculations Based on SMART Simulations

Table 8.6 shows Cote d'Ivoire's major imports, after adopting an FTA with the EU. Motor vehicles were expected to top the imports with US\$79 million followed by Light oil and preparation and meat and other edible meat, with an import bill of US\$67 million and US\$32 million, respectively.

g) Sensitivity Analysis and Robustness Tests

Given the uncertainty on the actual values for the Armington and demand elasticities, means that rigorous sensitivity analysis was required to ensure the robustness of the results presented in the study. Initially, a 'base-case' simulation was run, using the elasticities from Armington, Stern and Tokarick (as discussed in Chapter 5). Given the possible sensitivity of the models' results to the elasticity values, the researcher had to re-run the simulations under various assumptions. Upper-bound and lower-bound limits were established for various elasticities (see Table 5.1). Finally, given that the aim of the study was to determine the largest likely impact of EU FTA on Cote d'Ivoire, a 'worst-case' scenario was devised using the upper bound values and adding 4.

Appendix 3(a) reports on the sensitivity analysis and robustness tests for the trade-creation effects in Cote d'Ivoire, after the adoption of an EU FTA. Reducing the trade elasticity value to 0.5 showed no change in the trade creation from the base case in Cote d'Ivoire. Likewise, increasing the trade elasticities by 2 and 6 brings about no changes to the trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although

its composition changes as economic agents substitute for one another across the various imports.

Appendix 3(b) reports on the sensitivity analysis and robustness tests on the revenue effects in Cote d'Ivoire, after the implementation of EU FTA. Reducing trade elasticity to 0.5 is expected to decrease the revenue loss by 0.04 per cent. Increasing trade elasticity values to 2 and 6 would, respectively, increase the revenue loss by 0.02 per cent and 0.2 per cent. A 10 per cent margin of error could be seen as conservative and feasible, and the resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 3(c) reports on the sensitivity analysis and robustness tests on the welfare effect in Cote d'Ivoire after the implementation of the EU FTA. Reducing trade elasticity to 0.5 may decrease the welfare gains by 0.015 per cent. Increasing trade elasticity values to 2 and 6 would, respectively, decrease the welfare gains by 0.079 per cent and 0.0081 per cent. The margin of error could be seen to be conservative and acceptable, and the resulting deviations from the middle-ground results are insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(a) reports on the sensitivity analysis and robustness tests on exports in Cote d'Ivoire after the implementation of the EU FTA. Reducing the trade elasticity to 0.5 is expected to increase exports by 0.09 per cent. Increasing trade elasticity values to 2 and 6 would respectively increase the exports by 7.3 per cent and 9.12 per cent. The deviations of the expected change in exports as a percentage on lower-bound, upper-bound and worst-case scenarios from the base case were -0.43 per cent, 44.62 per cent and 56 per cent, respectively. The resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(b) reports on the sensitivity analysis and robustness tests on imports in Cote d'Ivoire after the implementation of EU FTA. Reducing trade elasticity value to 0.5 shows no change in

imports from the base case in Cote d'Ivoire. Likewise, increasing trade elasticities to 2 and 6 brings about no changes in the trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although the composition thereof changes as economic agents replace one another across the various imports.

8.4 Summary

This chapter has presented the empirical findings and an analysis of the revenue, welfare, imports, exports and trade creation implications of the EPAs on Cote d'Ivoire. The SMART simulation results and their analysis were aimed at addressing the research question posed in the study.

By implementing a full EPA Cote d'Ivoire would have trade creation that could offset any trade diversion resulting in net welfare gains for the country. If Cote d'Ivoire removes all the tariffs against imports from the EU and imposes the WTO MFN on non-EU countries, this may result in a trade expansion valued at US\$322.55 million.

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$294 million if the EU FTA is implemented. Major losers include Motor vehicles with a loss of US\$25 million, Cereal and other seeds with a loss of US\$8.4 million, and Onions and Shallots with a loss of US\$6.63 million. The total revenue loss expected by Cote d'Ivoire after embracing the EPAs represents only 4.8 per cent of the total tax revenue collected in the same year. Although this value is a small proportion of government revenue, it is significant – given the increasing importance of customs revenue to the country.

The SMART simulation results reveal that Cote d'Ivoire should experience a gain in consumer welfare valued at US\$28.82 million, by implementing the EU FTA.

Overall, Cote d'Ivoire's exports and imports are expected to rise by US\$459 million and US\$339 million, respectively.

From the above analysis, it is apparent that Cote d'Ivoire would both lose and benefit by joining the EU FTA. The country will experience an expansion in trade through trade creation, and a gain in consumer welfare. However, the government will lose revenue through the massive transformation required of the current tariff structure.

In order to address the methodological concerns on simulations caused by the sensitivity of the elasticity parameters used, the study carried out robustness and sensitivity analyses by manually changing the elasticities used. The outcome shows that the results presented in this chapter are robust.

The next chapter will present the empirical findings and an analysis of the revenue and welfare implications of the WTO FTA on Cote d'Ivoire. This will be followed by the presentation of the SMART simulation results and their analysis, which is aimed at addressing the research question posed in the study.

CHAPTER NINE

THE IMPACT OF WTO COMMITMENTS ON COTE D'IVOIRE

9.1 Introduction

Chapter Nine presents the empirical findings and an analysis of the implications of the WTO FTA on Cote d'Ivoire. In this section, the study estimates the impact of trade policy regimes on trade creation and diversion, imports, exports, revenue, and welfare on Cote d'Ivoire. The analysis was conducted, using WITS/SMART model. The study adopted the year 2014 as a base year for simulation using trade information databases, such as TRAINS, COMTRADE and WTO-IDB. In this study, the SMART model was used, based on the information contained in the UNCTAD-managed TRAINS database. The year 2014 was chosen because that is the latest year for Cote d'Ivoire in the WITS/SMART software.

For the WTO FTA, a 0 per cent is applied to all tariff lines traded with Cote d'Ivoire and other 159 WTO member States. These tariffs (for WTO FTA) were applied in the WITS/SMART model against the actual tariffs applied by the Ivorian customs authorities in 2014 saved in the TRAINS databases. The chapter is structured as follows: Section 9.2 examines a comparison of Cote d'Ivoire's structure and the WTO FTA. Section 9.3 discusses the WITS/SMART model simulation results for the WTO FTA. Section 9.4 presents a summary of the chapter.

9.2 A Comparison of Cote d'Ivoire's Tariff Structure and that of the WTO FTA

The country is among the few countries in the region with high tariffs, some of which are above 100 per cent (ITC, 2012). Cote d'Ivoire has experienced relative success in eliminating, or at least reducing tariffs at the intra-regional level with the introduction of the common external tariffs and the creation of customs unions.

Only 5.51 per cent of Cote d'Ivoire's tariff lines are zero-rated. In the case of a unilateral liberalisation of trade under the WTO context, this would, therefore, mean that 94.49 per cent of Cote d'Ivoire's tariff lines would have to be phased down to 0 per cent duty (ITC, 2012).

It is interesting to note that Cote d'Ivoire has recently ratified the trade facilitation agreement with the WTO. The WTO has promised to give Cote d'Ivoire technical assistance and support for the implementation of the trade facilitation agreement. Although efforts still need to be made, implementing the WTO trade facilitation will result in positive economic impact on the economy (WTO, 2014).

The outcome of this study is, therefore, important as it would help the country to review the impact of the Doha Round in advance and to take corrective steps. Even without the completion of the Doha Round, the amalgamation of various trade agreements Cote d'Ivoire has signed, brings it closer to the WTO FTA. It therefore, becomes necessary to review the impact of the WTO FTA on Cote d'Ivoire.

9.3 SMART Model Simulation Results

This section presents the results of the SMART Model simulations in terms of trade creation and trade diversion, revenue, exports, imports and welfare effects.

(a) Trade Creation and Trade Diversion

Trade creation means that more efficient or lower-cost producers in any of the WTO countries could displace the less-efficient or higher-cost producers in Cote d'Ivoire; and consumers would, therefore, benefit from the lower prices (Handley, 2014). However, some producers in Cote d'Ivoire will be negatively affected, as their products are replaced by products efficiently produced in other countries in the WTO region.

This implies that Ivorian industries will have to improve their production efficiency and competitive edge in preparation for the WTO FTA. Trade diversion, on the other hand, implies

that more efficient suppliers from outside the WTO FTA are displaced by less efficient producers within the FTA (Schmieg, 2016). This will be costly for the country, as revenue that would have been generated from imports from outside the WTO region is lost; and the products will become more expensive, since they would be sourced from higher-cost producers.

Using the simulation results from the WITS/SMART model, Table 9.1 shows the trade-creation and trade-diversion effects of the adoption of the WTO FTA by Cote d'Ivoire. For negotiation purposes, it is interesting to look at which WTO countries are bound to benefit the most from the Cote d'Ivoire tariff elimination. In total, these countries could gain more than US\$1.33 billion from their increased exports to Cote d'Ivoire. Table 9.1 shows that the largest gainer would be Nigeria (39.17 per cent of additional exports), followed by France and China with 11.2 per cent and 8.42 per cent of total export gains respectively.

These three countries should reap up to 58.79 per cent of increased exports to Cote d'Ivoire. This outcome is consistent with the findings of Lang (2006) in ECOWAS. Lang observed that EPA was trade-creating; and inefficiently produced goods were being displaced by EU products. In the case Asean-China Free trade agreement, Yang and Martinez Zarzozo (2014) have shown that Asean China FTA will experience significant and substantial trade creation.

Table 9. 1: Increase in Exports after FTA for Individual WTO countries (US\$ Million)

WTO Member	Total Export Gains	Share in Increased Exports (%)
Nigeria	521	39.17
France	149	11.2
China	112	8.42
Netherlands	39	2.93
Germany	36	2.7
India	29	2.18
USA	27	2.03
Belgium	16	1.2
Ghana	11	0.82
South Africa	10	0.75
ROW	380	28.57
Total	1330	100.00

Source: Author's Own Calculations Based on SMART Simulations

Other countries, which have significantly displaced Ivorian products are Netherlands, Germany, India, USA and Belgium with increased exports into Cote d'Ivoire of US\$39 million, US\$36 million, US\$29 million, US\$27 million and US\$16 million, respectively (see Table 9.1).

This trade-creation effect is expected to result in the plummeting of prices of those displaced products, thereby enabling consumers to make savings. However, Ivorian producers will be seriously hurt unless the government comes up with a clear strategy to resuscitate those companies; for example, without a financial facility, they may close shop. Industries that are likely to be seriously affected are mainly those involved in the production of motor vehicles (see Table 9.2). The top casualties of trade creation are listed in Table 9.2. It is important to mention that motor vehicles are extremely vulnerable to displacement by foreign firms as it represent 3.14 per cent of total trade creation (see table 9.2).

Table 9. 2: Products with the Highest Trade Creation Effects in Cote d'Ivoire after WTO FTA (US\$ Millions)

Tariff Line Code	Product denomination	Trade creation (US\$ Million)	Share in total trade creation
87000	Motor vehicles	41.88	3.14887218
100190	Wheat and Meslin	10.6	0.796992481
842619	Mobile lifting frames, straddles carriers and works trucks	7.02	0.527819549
291733	Dinonyl or didecyl orthophtalates	6.76	0.508270677
481910	Cartons, boxes of corrugated paper or paperboard	6.3	0.473684211
730300	Tubes pipes and hollow profile	5.6	0.421052632
852352	Smart cards	4.04	0.303759398
20329	Meat	3.9	0.293233083
380891	Insecticides	3.2	0.240601504
271019	Light oils and preparations	3.1	0.233082707
890600	Other vessels including worships and lifeboats	2.96	0.222556391
271019	Petroleum oil	2.9	0.218045113
252320	White cement whether or not artificially coloured	2.51	0.188721805
63000	Other made up textile articles	2.45	0.184210526
350691	Products suitable for use as glue or adhesives	1.9	0.142857143
390410	Vinyl chloride, not mixed with any other substances	1.65	0.12406015

380893	Herbicides	1.5	0.112781955
240220	Cigarette containing tobacco	1.3	0.097744361
730840	Equipment for scaffolding, propping or pitpropping	1.2	0.090225564
843143	Parts for boring or sinking machinery	1.11	0.083458647
Other	Other products not specified above	1218	91.57
Total		1330	100

Source: Author's Own Calculations Based on SMART Simulations

The reason why these products are displaced is that these commodities are currently attracting very high tariff rates. In addition to the common external tariff which can go up to 35 per cent, motor vehicles also attract ad valorem tax which are imposed based on the importing price of the products.

Trade creation by product specifically from SMART simulations shows that most of the motor vehicles come from Germany and France. This outcome is consistent with what is currently pertaining in Cote d'Ivoire. Motor vehicles has been Cote d'Ivoire's highest import from Germany (UNCTAD, 2015). A detailed list of products that constitute significant contributions to trade creation in Cote d'Ivoire from selected countries is shown in Appendix 18.

SMART Simulations results show that trade creation should offset trade diversion in Cote d'Ivoire – resulting in net welfare gains for the country – if it goes for an FTA under the WTO arrangement. If Cote d'Ivoire removes all the tariffs against imports from the WTO group, this would result in a trade expansion valued at US\$1.33 billion. This result shows that countries outside the WTO are insignificant in influencing trade in Cote d'Ivoire.

For the importing country, in this case Cote d'Ivoire, trade diversion is neutral. It does not affect the overall imported quantity; but it re-allocates the market shares among the exporting partners, based on the new relative prices. The increase in imports from the WTO countries is balanced by

a decrease in imports from the rest of the world. This results in the trade diversion being equal to zero.

Thus, trade creation is the only influence on the total social welfare. Although the trade-creation effect of the WTO FTA on Cote d'Ivoire is positive (particularly on consumer welfare). However, based on its possible impact on de-industrialisation and unemployment, trade creation is likely to present a huge impact on Cote d'Ivoire which may reverse the purported welfare gains.

These findings were supported by Mugano, *et al.* (2013) who examined the impact of the WTO free-trade agreements on Zimbabwe. They also noted a positive trade creation effect valued at US\$104.573 million resulting from the free trade agreement and no trade diversion effect realised.

(b) The Revenue Effect

The majority of member states within the WTOFTA states regard fiscal revenue to be a major consideration of being part of the WTOFTA (McGovern, 2015). There are fears that the tariff cuts that have to be implemented by most WTO countries to conform to the FTA rates would result in tariff revenue shortfalls for most countries.

Cote d'Ivoire with its complex tariff structure is among the countries that are supposed to undertake a huge transformation of their national tariff structure, in order to conform to the WTO FTA rates – considering that only 5.51 per cent of tariff lines are liberalised. Table 9.3 shows the revenue implications of the WTO FTA on Cote d'Ivoire. The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$787.74 million if the WTO FTA is implemented.

Table 9. 3: Revenue Effect of the WTO FTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Denomination	Revenue Loss	Share of Total Revenue Loss
890520	Light vessels, fire floats, floating cranes and other vessels	-134.12	-17.02592226
100630	Semi-milled or Wholly milled rice	-34.7	-4.405006728
870000	Motor vehicles	-29.4	-3.732195902
30371	Sardines and other fish	-28.49	-3.616675553
100640	Broken rice	-12.53	-1.590626349
271011	Light oil and preparations	-11.98	-1.520806357
252310	Cement clinkers	-10.76	-1.365932922
100190	Wheat and meslin	-10.54	-1.338004925
630900	Worn clothing and other worn articles	-6.97	-0.884809709
871000	Tanks and other armoured fighting vehicles	-6.94	-0.881001346
20621	Meat	-6.56	-0.832762079
380891	Insecticide	-5.48	-0.695661005
Other	Other products not specified above	-489.27	-62.110594
Total		-787.74	100

Source: Author's Own Calculations Based on SMART Simulations

Cote d'Ivoire's total revenue as a percentage of GDP stood at 18.2 per cent; while their total revenue (including grant) stood at 22.4 per cent of the country GDP (see Table 2.3 in Chapter 2). Analysis from this result shows that the total revenue loss after WTO FTA translates into 12.7 per cent of the total revenue collected in the same year.

This result reveals that the impact of unilateral liberalisation of tariffs in the WTO context on revenue loss is quite significant.

Table 9.3 shows those products, which are expected to experience highest revenue losses. Amongst the top losers are Light vessels, fire floats, floating cranes and Semi-milled or Wholly milled rice with US\$134.12 million (17.02 per cent of total revenue loss) and US\$34.7 million (4.4 per cent of total revenue loss), respectively. Other products with a significant loss in revenue are: motor vehicles, sardines and other fish, broken rice, light oil and preparations, cement clinkers, wheat and meslin, worn clothing and other worn articles, tanks and other armoured fighting vehicles, meat and insecticide (see Table 9.3).

These findings do confirm that the effect of unilateral liberalisation of taxes and tariffs in the WTO setting on revenue loss is quite significant as it constitutes more than 10 per cent of the revenues collected through taxes from the international trade (IMF 2015).

This outcome is also consistent with the *ex ante* studies carried out by Alfieri, Cirera and Rawlinson (2006) in Mozambique. Alfieri, Cirera and Rawlinson (2006) found that Mozambique will witness a significant loss of revenue if it implements the WTO FTA.

(c) The Consumer-Welfare Effect

One of the main arguments in favour of free trade is that consumers would benefit from lower prices. Whether or not this will occur depends on the extent of trade creation, as against trade diversion. In the case of Cote d'Ivoire, the results have already shown that the total trade creation surpasses trade diversion, which means that consumers will benefit from the implementation of the trade liberalisation, as argued by Viner (1950).

As shown in Table 9.4, the SMART simulation results reveal that Cote d'Ivoire is expected to experience a gain in consumer welfare valued at US\$87.19 million, by implementing the WTO FTA. The total gains in welfare are insignificant, as they represent about 0.25 per cent of the 2014 GDP, which stood at US\$34 billion.

The outcome is consistent with the findings of Ossa (2014), who analysed the WTO trade agreement effects in Brazil, China, the European Union, India, Japan, the United States and the

rest of the world. He found that the average welfare gain is 0.5 per cent. Alfieri, Cirera and Rawlinson (2006), who researched the implications of a unilateral full liberalisation of trade between Mozambique and all the WTO member States. They found that Mozambique stands to benefit to the tune of a consumer surplus valued at US\$160 million, if it implements the WTO FTA.

Table 9. 4: The Welfare Effects of the WTO FTA on Cote d'Ivoire (US\$ Million)

HS Code	Product Description	Welfare Gains
240220	Cigarette containing tobacco	35.48
870000	Motor vehicles	4.6
481910	Cartons, boxes and cases, of corrugated paper	2.59
100630	Semi-milled or wholly milled rice	1.85
Other	Other products not specified above	42.67
Total		87.19

Source: Author's Own Calculations Based on SMART Simulations

As shown in Table 9.4, tobacco and motor vehicles are major contributors to welfare gains in Cote d'Ivoire. It is interesting to note that this result is consistent with the findings on revenue loss. The same products came out as major contributors of loss in government revenue. Technically, major losers in revenue should be seen in the basket of products contributing welfare gains – for the simple reason that these commodities become cheaper to households – thereby, enhancing welfare.

(d) The Impact of the WTO FTA on Cote d'Ivoire's Exports

Based on the exporters' view of SMART simulations results, Cote d'Ivoire stands to gain an increase in exports if it implements the WTO FTA. Table 9.5 shows the impact of the unilateral trade liberalisation within the context of the WTO on Cote d'Ivoire's exports and geographical distribution (to the top export markets) of the exports.

Table 9. 5: The Impact of the WTO FTA on Cote d'Ivoire's Exports (US\$ Millions)

Partners	Exports Before	Export After	Change	Share of Exports
Nigeria	2885	3406	521	42.49
France	1297	1446	149	18.03
China	1433	1545	112	19.27
Netherlands	241	280	39	3.49
Germany	256	292	36	3.64
India	318	347	29	4.32
USA	290	317	27	3.95
Belgium	166	182	16	2.27
Ghana	70	81	11	1.01
South Africa	110	120	10	1,49
Total*	7066	8016	950	100
TOTAL**	12454	13784	1330	

* Total from top ten trading partners, ** Total trade with all WTO members and rest of the world
Source: Author's Own Calculations Based on SMART Simulations

As shown in Table 9.5, Cote d'Ivoire exports to the WTO group stood at US\$12.45 billion before an FTA. After the implementation of the FTA, the country's exports increased by US\$1.33 billion to US\$13.78 billion in the WTO group. One possible explanation for the increase in exports is the increase in market access for Cote d'Ivoire caused by an FTA, and the rebound effect of the reduction in costs for Ivorian producers, who import raw materials at a lower cost because of the tariff removal for production of export-bound products.

Cote d'Ivoire's exports after the WTO FTA include petroleum oils; and they are expected to net US\$2.92 billion, Floating or submersible drilling or production platforms with an export value of US\$2.74 billion, Cigarette containing tobacco with export receipts of US\$533.37 million, and Wheat and meslin, which are expected to net US\$174.36 million (see Table 9.6).

Table 9. 6: Cote d'Ivoire's Major Exports to the WTO FTA (US\$ Millions)

HS Code	Description	Value
270900	Petroleum oils and oils obtained from bituminous minerals	2927
890520	Floating or submersible drilling or production platforms	2744
240220	Cigarette containing tobacco	533.37
100190	Wheat and meslin	174.36
100630	Semi-milled or wholly milled rice	144.10
271113	Butanes	110.93
100640	Broken rice	105.72
300490	Mineral or chemical fertilizer	91.9
30371	Sardines	44.93
70310	Onions and shallots	39.26
380893	Herbicides	39.18

Source: Author's Own Calculations Based on SMART Simulations

(e) The Impact of the WTO FTA on Cote d'Ivoire's Imports

Trade liberalisation has a positive effect on a country's imports. The effect of an FTA, as in this case, is on price reduction, which has already shown that it has a significant impact on trade creation in Cote d'Ivoire. It therefore, becomes pertinent to evaluate the impact of a WTO FTA on Cote d'Ivoire's imports in general, since this is one of the objectives of this study.

Based on the market view obtained from the SMART Simulations, Table 9.7 shows the impact of a WTO FTA on Cote d'Ivoire's imports. As shown in Table 9.7, Cote d'Ivoire's imports before WTO FTA totalled US\$12.45 billion. Cote d'Ivoire's imports after the coming into effect the WTO FTA amounted to US\$13.78 billion. The WTO FTA is expected to result in an increase in national imports by US\$1.33 billion.

These findings are consistent with those of Mugano *et al.* (2013) who evaluated the impact of the WTO free-trade agreement on Zimbabwe. Their findings confirmed that after the implementation of the WTO free-trade agreement, an expected increase in imports was realised; which yielded similar outcomes to those of this study.

This outcome is consistent with the findings of Alfieri, Cirera and Rawlinson (2006), who witnessed a dramatic increase in Mozambican imports after a unilateral implementation of the WTO FTA. The increase in imports is consistent with economic theory, as rational economic agents import more, due to the improvement in their cash flows, as an FTA means the abolition of tariffs, which were stumbling blocks to trade.

Table 9. 7: The Impact of WTO FTA on Cote d'Ivoire's Imports (US\$ Millions)

Imports Before WTO FTA	Change in Imports	Imports After WTO FTA
12454.31	1330.62	13784.93
HS Code	Description of Major Imports	Value
270900	Petroleum oils and oils obtained from bituminous minerals	2928
890520	Floating or submersible drilling or production platforms	2745
240220	Cigarette containing tobacco	542
100630	Semi-milled or wholly milled rice	372.13
30379	Fish and other Crustacean	205.92
100190	Wheat and meslin	189.19
300490	Mineral or chemical fertilizer	177.54
100640	Broken rice	137.35
252310	Cement clinkers	118.14
271113	Butanes	117.14
870323	Motor vehicles of a cylinder capacity exceeding 1500cc but not exceeding 3000cc	108
240120	Tobacco partly or wholly stemmed/ stripped	105.68
271011	Light oils and preparations	105.65
30371	Sardines	95.80

Source: Author's Own Calculations Based on SMART Simulations

Cote d'Ivoire's major imports include petroleum oils, Floating or submersible drilling or production platforms, cigarette containing tobacco, Semi-milled or wholly milled rice, Fish and other Crustacean (see Table 9.7).

(f) Sensitivity Analysis and Robustness Tests

Given the uncertainty of the actual values for the Armington and demand elasticities, this implies that rigorous sensitivity analysis was required to ensure the robustness of the results presented in the study. Initially, a 'base-case' simulation was run, using the elasticities from Armington, Stern and Tokarick, as discussed in Chapter 5. Given the possible sensitivity of the models' results to the elasticity values, the researcher had to re-run the simulations under varying assumptions. Upper-bound and lower-bound limits were established for various elasticities (see Table 5.1). Finally, given that the aim of the study was to determine the largest likely impact of WTO FTA on Cote d'Ivoire, a 'worst-case' scenario was devised, using the upper-bound values by adding 4.

Appendix 3(a) reports on the sensitivity analysis and the robustness tests for the trade-creation effects in Cote d'Ivoire, after the adoption of a WTO FTA. Reducing the trade elasticity to a value of 0.5 shows no change of trade creation from the base case in Cote d'Ivoire. Likewise, increasing the trade elasticities to 2 and 6 brings about no changes in the trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although the composition thereof changes, as economic agents substitute across the various imports.

Appendix 3(b) reports on the sensitivity analysis and robustness tests on the revenue effect in Cote d'Ivoire after the implementation of the WTO FTA. Reducing trade elasticity to 0.5 show no change in revenue from the base case in Cote d'Ivoire. But, increasing the trade elasticity values to 2 and 6 would, respectively, increase the revenue loss by 0.00126 per cent and 0.00253 per cent. The resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 3(c) reports on the sensitivity analysis and the robustness tests on the welfare effect in Cote d'Ivoire, after the implementation of the WTO FTA. Reducing trade elasticity to 0.5 shows

no change of trade creation from the base case in Cote d'Ivoire. Likewise increasing the trade elasticity values to 2 and 6 would, respectively, brings no changes in trade creation. The margin of error can be argued to be conservative and acceptable; and the resulting deviations from the middle ground results are insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(a) reports on the sensitivity analysis and the robustness tests on exports in Cote d'Ivoire after the implementation of the WTO FTA. Reducing trade elasticity to 0.5 shows no change of trade creation from the base case in Cote d'Ivoire. Likewise increasing the trade elasticity values to 2 and 6 would, respectively, brings no changes in trade creation. The resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(b) reports on the sensitivity analysis and the robustness tests on imports in Cote d'Ivoire after the implementation of the WTO FTA. Reducing the trade elasticity value to 0.5 shows no change in imports caused by trade creation from the base case in Cote d'Ivoire. Likewise, increasing trade elasticities to 2 and 6 brings about no changes to trade creation. The outcome shows that Cote d'Ivoire's total change in imports would be the same in value, although the composition thereof changes, as economic agents substitute across the various imports.

9.4 Summary

This chapter has presented the empirical findings and an analysis of the revenue and welfare implications of the WTO FTA on Cote d'Ivoire. This will be followed by a presentation of the SMART simulation results and their analysis, which is aimed at addressing the research question posed in the study.

Cote d'Ivoire will have a trade creation that would offset any trade diversion, resulting in net welfare gains for Cote d'Ivoire, if it enters into an FTA under the WTO arrangement. If Cote d'Ivoire removes all the tariffs against imports from the WTO group, and imposes the agreed WTO CET on non-WTO countries, this should result in a trade expansion valued at US\$1.33

billion. Cote d'Ivoire's major imports from the WTO FTA member States include petroleum oils, Floating or submersible drilling or production platforms, cigarette containing tobacco, Semi-milled or wholly milled rice, Fish and other Crustacean, which is expected to create an additional trade of US\$6793 million. Other products include Wheat and Meslin, Mineral or chemical fertilizer, Broken rice with export values of US\$189.19 million, US\$177.54 million and US\$137.35 million, respectively. For the importing country, in this case Cote d'Ivoire, trade diversion is neutral. It does not affect the overall imported quantity; but it re-allocates the market shares among its exporting partners, based on the new relative prices. The increase in imports from the WTO countries is balanced by a decrease in imports from the rest of the world, which results in the trade diversion being equal to zero. Thus, trade creation is the only influence on the total social welfare.

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$787.74 million if the WTO FTA is implemented, which is quite significant.

The SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare, valued at US\$87.19 million, by implementing the WTO FTA. Cigarette containing tobacco are major contributors to the welfare gains in Cote d'Ivoire with a value of US\$35.48 million. Cote d'Ivoire's exports to the WTO group are expected to increase by US\$1.33 billion, if Cote d'Ivoire unilaterally liberalises its trade within the WTO. Major commodities could boost Cote d'Ivoire's exports after joining WTO FTA, include Petroleum oils, which are expected to net US\$2.92 billion, Floating or submersible drilling or production platforms with an export value of US\$2.74 billion, Cigarette containing tobacco of US\$533 million, and Wheat and meslin, which are expected to net US\$174 million. The WTO FTA would result in national imports increasing by US\$1.33 billion.

The increase in imports is logically as a result of improvements in economic agents' cash flows, due to the low cost of importing, since tariffs would have been abolished. Cote d'Ivoire's major imports include Petroleum oils and oils obtained from bituminous minerals, Floating or

submersible drilling or production platforms, Cigarette containing tobacco, Semi-milled or wholly milled rice.

From the above analysis, it is apparent that Cote d'Ivoire on balance will lose by joining the WTO FTA. Government will lose revenue through the massive transformation of the current tariff structure. Trade creation effects are likely to pose serious threat on the local industry. The welfare gains which are anticipated are both insignificant and cannot compensate revenue loss in Cote d'Ivoire.

The study tested for the robustness of the results presented in this chapter, in order to ascertain whether the right parameters were being used during simulations. The results presented in this chapter are reliable.

The next chapter presents the empirical findings and an analysis of the revenue, welfare, imports, exports, and trade creation implications of the bilateral free-trade agreements (BFTAs). The presentation of the SMART simulation results and their analysis, which is aimed at addressing the research question posed here, will be explored in this study.

CHAPTER TEN

THE IMPACT OF BILATERAL AGREEMENTS ON COTE D'IVOIRE

10.1 Introduction

Eicher, et al (2012) defines bilateral trade agreement as a treaty or settlement pact between two countries at a given time, granting them favoured-trading status with each other.

Abbott, Bentzen, and Tarp (2009) argued that these forms of bilateral trade occurs where trading partners standardise business operations, with the main aim of creating a greater level playing field for both countries and to derive special benefits from the trade arrangement. This would enable the country to protect its domestic market against one nation, to control the application of unfair subsidies, and also as a measure to control the dumping of cheap products.

Chapter Ten presents the empirical findings and an analysis of the implications of the BTA FTA on Cote d'Ivoire. In this section, the study estimates the impact of trade-policy regimes on trade creation and diversion, imports, exports, revenue and welfare, on Cote d'Ivoire. The analysis was conducted using the WITS/SMART model. The year 2014 was adopted as the base year for simulation, using trade information databases such as TRAINS, COMTRADE and WTO-IDB.

In this study, the SMART model was used, based on information contained in the UNCTAD-managed TRAINS database. The year 2014 was chosen because that is the latest year for Cote d'Ivoire in the WITS/SMART software for Cote d'Ivoire. These tariffs (for BFTAs) applied in the WITS/SMART model against the actual tariffs applied by the Cote d'Ivoire customs authorities in 2014 were saved in the TRAINS databases.

The chapter is structured as follows: Section 10.2 presents a comparison of Cote d'Ivoire's structure and those of the BFTAs. Section 10.3 discusses the WITS/SMART model simulation results for BTA FTA. Section 10.4 provides a summary of Chapter 10.

10.2 Cote d'Ivoire's Bilateral Trade Agreements

Cote d'Ivoire has concluded over 34 bilateral trade agreements which generally provide for a Most Favoured Nation Regime (MFN) and a Preferential Trade Agreements (PTAs). Within the context of WTO Cote d'Ivoire has currently 11 Preferential Trade Agreements (PTAs) with the WTO members which include: The United States, The EU, Canada, Switzerland, Japan, Australia (WTO, 2015). It is important to also note that Cote d'Ivoire is not a signatory of the Agreement on the Global system of Trade Preferences (GSTP) among developing countries (WTO, 2015).

Although Cote d'Ivoire has not yet signed BFTAs, the government is in the process of reviewing its bilateral trade agreements since most of them are outdated (were signed in the 1960s), this study hypothetically assumed an FTA for the upcoming bilateral trade agreements. This assumption although it is abstract in nature, it is more realistic position for Cote d'Ivoire future bilateral trade agreements since most of its trading partners are engaging with Cote d'Ivoire in FTAs arrangements such as WAEMU FTA, ECOWAS FTA and EPAs. Hence, in the spirit of the need to harmonise trading protocols and smoothen trade facilitation, going forward, Cote d'Ivoire is most likely going to engage in FTAs when reviewing bilateral trade agreement.

This review of the BFTAs has been assumed to start with major trading partners in this study. In this study the major trading partners selected on the basis of volume of trade were used as the basis to determine Cote d'Ivoire's major trading partner, as discussed in Chapter 3. The top ten Cote d'Ivoire trading partners used in this research are: Netherlands, the United States, South Africa, France, Nigeria, Burkina Faso, Belgium, Germany, India, and Ghana.

10.3 SMART Model Simulation Results

This section presents the results of the SMART Model simulations in terms of trade-creation and trade-diversion, as well as the revenue and welfare effects.

10.3.1 Trade Creation and Trade Diversion

Trade creation means that more efficient or lower-cost producers in any of the countries with bilateral arrangement with Cote d'Ivoire displace the less efficient or higher-cost producers in Cote d'Ivoire; and consumers would, therefore, benefit from the lower prices (Viner, 2014). However, some producers in Cote d'Ivoire could be negatively affected, as their products are substituted by products efficiently produced in partner countries with bilateral free trade agreements with Cote d'Ivoire (BFTAs).

This implies that Ivorian industries have to improve their production efficiency and competitive edge in preparation for the FTA. Trade diversion, on the other hand, implies that more efficient suppliers from outside the bilateral group are displaced by less efficient producers within the FTA (Viner, 2014). This would be costly for the country, as revenue that would have been generated from imports from outside the BFTAs is lost; and, consequently, the products become more expensive, since they would then be sourced from higher-cost producers.

Using the simulations results from the WITS/SMART model, Table 10.1 shows the trade-creation and trade-diversion effects of the adoption of the BTFA by Cote d'Ivoire.

Table 10. 1: Trade-Creation Effects of the BFTA on Cote d'Ivoire (US\$ Millions)

HS Code	Product Description	Value
87	Motor vehicles	35.32
84	Nuclear reactors	24.79
85	Electric Motors	17.75
39	Plastic and articles thereof	10.53
73	Articles of Iron or steel	8.05
29	Organic chemicals	7.88
27	Mineral fuels, mineral oils and products of their distillation	6.16
Other		1160
Total		1265

Source: Author's Own Calculations Based on SMART Simulations

A bilateral free trade agreement is expected to enhance the competitiveness of efficient firms within the BFTA with Cote d'Ivoire, at the expense of those Ivorian companies, which were previously shielded by tariffs and non-tariff barriers. Foreign firms from the BFTA are expected to displace Cote d'Ivoire products in what is known as resultant-trade creation. Foreign firms from the BFTAs are expected to increase their exports by US\$1.265 billion (see Table 10.1). The major products expected to gain a significant market access in Cote d'Ivoire market from BFTA firms are motor vehicles, nuclear reactors and electric motors, with import values of US\$35.32 million, US\$24.79 and US\$17.75 million, respectively.

Currently, motor vehicles are attracting a duty rate between 20 and 35 per cent, in addition to a value added tax of 18 per cent in Cote d'Ivoire. The adoption of BFTA implies that it has to be levied 0 per cent duty. The coming into effect of a BFTA would now mean that motor vehicles will attract a 0 per cent tariff rate. The trade creation, particularly from electric motors and motor vehicles, is expected to come as a relief to consumers in Cote d'Ivoire, as they would probably be able to make significant savings, as the prices of these commodities could be expected to fall.

These findings were further supported by Mugano (2015) who evaluated the impact of the bilateral free-trade agreements on Zimbabwe. The study also revealed a positive trade-creation effect of U\$104.57 million, resulting from the bilateral free-trade agreement.

This outcome is consistent with the findings of other researchers. Hamilton (2009) carried out a study on the potential effects of a bilateral FTA between the EU and Malawi, and found that Malawi expects an increase in imports caused by trade-creation effects by 0.4 per cent. Hallaert (2007) estimated a 4.9 per cent increase in imports into Madagascar on the *ex ante* effects of the EU FTA.

However, the effect of trade creation on local industry is negative. Firms in the production of motor vehicles, nuclear reactors and related companies in the value chain, will be threatened with closure, unless government comes up with a financial package to mitigate the costs of foreign competition, and also to enhance the competitiveness of companies (as proposed by Lang, 2006).

There is no evidence of trade diversion in Cote d'Ivoire. The outcome is consistent with the findings of Shinyekwa and Katunze, 2016; Mugano et al, 2013; Abdelmalik, Sandretto and Jallab, 2007; Cernat (2003); and the argument of Kemp and Wan (1976) and Amponsah (2002). These authors all suggested that some regional groupings CET are too weak to divert trade from third parties.

10.3.2 The Revenue Effect

The implications of the BFTA on member States' fiscal revenue is one of the contentious issues currently under discussion at the regional level. There are fears that the tariff cuts that have to be implemented by most BFTA countries, in order to conform to the duty-free rates, would result in tariff revenue shortfalls for most countries.

Cote d'Ivoire is among those countries that are supposed to undertake a huge transformation of their national tariff structures, in order to conform to the duty-free rates – considering that only 5.51 per cent of the tariff lines are liberalised. Table 10.2 shows the revenue implications of the

BFTAs on Cote d'Ivoire. The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$278 million if the BFTA is implemented. Major contributors to this revenue loss in Cote d'Ivoire are motor vehicles, cereals, electrical machinery and equipment, edible vegetables, meat and edible meat offal, and tobacco, with US\$34.38 million, US\$18.63 million, US\$9.39 million, \$6.6 million, US\$6.54 million and US\$5.04 million, respectively (see Table 10.2).

Table 10. 2: The Revenue Effect of the BFTA on Cote d'Ivoire (US\$ Millions)

HS code	Product Description	Revenue Loss	% of Total Loss
87	Motor Vehicles	-34.48	12.4
10	Cereals	-18.63	6.7
85	Electrical machinery and equipment and parts	-9.39	3.37
07	Edible vegetables and certain roots and tubers	-6.6	2.37
02	Meat and edible meat offal	-6.54	2.35
24	Tobacco	-5.04	1.81
72	Iron and Steel	-3.32	1.19
04	Diary products; bird' eggs, natural honey	-3.23	1.16
33	Oils/Cream for make-ups	-1.946	0.7
Other		-207.6	74.67
Total		-278	100

Source: Author's Own Calculations Based on SMART Simulations

Motor vehicles alone represent 12.4 per cent of the total loss in revenue. Traditionally, these commodities are subject to high import taxes and duties; for example, Motor vehicles attracts a tariff rate between 20 and 35 per cent, an 18 per cent of VAT plus an additional tax according to the price of origin of the vehicle. Duty is approximately 44 per cent of the value assessed by Customs. However, the BFTAs requires it now to be imported at a duty-free rate, hence the massive loss in revenue.

The expected loss in revenue coming into effect if Cote d'Ivoire implements the BFTAs is significant, since it represents 4.59 per cent of the 2014 total tax revenue. This outcome is consistent with the findings of other researchers in the region. Hamilton (2009) found that the bilateral free trade agreement between the EU and Malawi would result in a 20 per cent decline in revenue. In Kenya, Hamilton (2009) found a modest loss of revenue of 5.7 per cent if the country signs a bilateral FTA with EU.

Zgovu and Milner (2007) found that a bilateral FTA between Tanzania and the EU would generate a revenue loss of 54 per cent.

10.3.3 The Consumer-Welfare Effect

Deardorff (2014) defined consumer welfare as the distinct personal benefits that are derived from consuming a particular good or service. This theory finds individual assessment and measurement to be the crucial determinants of the levels of satisfaction.

One of the main arguments in favour of free trade is that consumers would benefit from lower prices. Whether or not this will actually occur depends on the extent of trade creation as against trade diversion. For Cote d'Ivoire, this study reveals that the total trade creation surpasses trade diversion, which means that consumers would benefit from the implementation of the BFTAs.

As shown in Table 10.3, the SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare, valued at US\$61.09 million by implementing the BFTA. Tobacco is the major contributor to welfare gains in Cote d'Ivoire. Under the BFTAs scenario, US\$35.4 million of savings would accrue to households. Currently, motor vehicles, electrical machinery and meat also contribute significant gains to welfare (see Table 10.3).

Table 10. 3: Welfare Effects of BFTA on Cote d'Ivoire (US\$ Million)

HS code	Product Description	Welfare Gain/Loss
24	Tobacco	35.40
87	Motor Vehicles	3.89
85	Electrical machinery and equipment and parts	1.29
02	Meat and edible meat offal	1.1
Other		19.41
Total		61.09

Source: Author's Own Calculations Based on SMART Simulations

The impact of welfare in Cote d'Ivoire after liberalising trade with its top ten trading partners is expected to be insignificant, representing only 0.17 per cent of 2014 GDP.

These findings concur with the recent findings of Simiyu (2017) who assessed the effect of the bilateral free trade agreement on Kenya. His findings show that consumer welfare effect in Kenya after the implementation of the bilateral free trade agreement will be insignificant.

In Asia, the Asian Development Bank Institute (2011) revealed that the Thailand-New Zealand Comprehensive Economic Partnership Agreement (CEPA) brings about US\$11.3 million in welfare gains for Thailand.

10.3.4 The Impact of BFTA on Cote d'Ivoire's Exports

One of the objectives on this study is to find the impact of BFTA on Cote d'Ivoire's exports. Exporters' view evaluated from the WITS/SMART simulation model shows that Cote d'Ivoire's exports are expected to increase by US\$921.87 million if the country undertakes an FTA with its top ten trading partners (see Table 10.4).

Table 10. 4: The Impact of BFTA on Cote d'Ivoire Exports (US\$ Millions)

Trading Partner	Exports Before	Exports After	Change	% Share of Total Exports
Nigeria	2885	3408	523	47.89
France	1296	1504	208	21.13
Belgium	701	667	-34	9.37
India	317	363	46	5.1
The United States	289	330	41	4.63
Germany	255	310	55	4.35
Netherlands	241	290	49	4.07
South Africa	109.72	126.59	16.87	1.77
Ghana	70	85	15	1.19
Burkina Faso	30	32	2	0.44
Total	6193.72	7115.59	921.87	100

Source: Author's Own Calculations Based on SMART Simulations

The results observed for the exports before the bilateral trade agreement is different from that of (Table 3.4) because the model assume an elasticity of substitution of 99 per cent. Hence exports 'values are higher.

This outcome is consistent with economic theory and the empirical evidence. On economic theory, FTAs create market access, as trade barriers are dismantled with an FTA (Hindriks et al, 2013). This is expected to propel the exports of member States in the FTA. On empirical evidence, from the study of Simiyu (2017) which shows that Kenya should expect an increment in their exports from US\$4.159 billion to US\$ 4.627 billion after the bilateral free-trade agreement. Hallaert (2007) also found that Madagascar's exports are like to increase by 3.8 per cent if the country implements the EU FTA

Table 10. 5: Cote d’Ivoire Major Exports in the BFTA (US\$ Millions)

HS Code	Product Description	Value
27	Mineral fuels, mineral oils and products of their distillation	2841
25	Salt	632
24	Tobacco	533
87	Vehicles	185
85	Electric Motors	174
84	Nuclear Reactors	155.82
30	Pharmaceutical products	143.94
73	Articles of iron or steel	59
39	Plastic and plastic thereof	44.38
48	Paper and paperboard	28.92
63	Textile articles and clothing	18.6
22	Beverages, spirits and vinegar	9.23
26	Ores, slag and ash	8.95
32	Tanning or dyeing extracts	8.93

Source: Author’s Own Calculations Based on SMART Simulations

Nigeria, France and Belgium are the major export destinations for Cote d’Ivoire’s products with 78.39 per cent of total exports being absorbed by these three countries. Major commodities, which are expected to dominate Cote d’Ivoire’s exports after joining the BFTAs include mineral fuels, which is expected to net US\$ 2.84 billion, salt with an export value of US\$ 632 million, tobacco with export receipts of US\$ 533 million, and vehicles, which is expected to net US 185 million (see Table 10.5).

10.3.5 The Impact of BFTAs on Cote d’Ivoire’s Imports

Conventional theory on trade suggests that a trade reform, which comes in the form of an FTA, could be expected to lead to an increase in imports, due to a fall in prices. In the case of Cote

d'Ivoire, does this BFTA lead to an increase in the country's imports? This is one of the research questions posed by this study, and is answered in this section. According to Lang (2006), trade creation and trade diversion comprise significant stakes in a region/country's import basket. In this study, trade creation and trade diversion were significant; hence Cote d'Ivoire's imports would be strongly influenced by a BFTA. Table 10.6 presents the market view on the impact of BFTA on imports in Cote d'Ivoire.

Based on SMART simulations, Cote d'Ivoire's imports are expected to increase by US\$ 817 million. The increase in imports is logically as a result of improvements in economic agents' cash flows, due to the low cost of importing, since tariffs would have been abolished.

Table 10. 6: The Impact of BFTA on Cote d'Ivoire Imports (US\$ Millions)

HS Code	Product Description	Import Value
27	Mineral fuels, mineral oils and products of their distillation	2928
89	Ships boats and floating structures	2682
24	Tobacco	541
10	Cereals	352
03	Fish and other crustacean	193
30	Pharmaceutical products	177
25	Salt	107
87	Motor Vehicles	100

Source: Author's Own Calculations Based on SMART Simulations

Cote d'Ivoire's major imports include mineral fuels, ships boats and floating structures, tobacco, cereals, fish and other crustacean (see Table 10.6).

10.3.6 Sensitivity Analysis and Robustness Tests

Given the uncertainty on the actual values for the Armington and demand elasticities, this implies that rigorous sensitivity analysis would be required, to ensure the robustness of the

results presented in this study. Initially, a ‘base-case’ simulation was run, using the elasticities from Armington, Stern and Tokarick (as discussed in Chapter 5). Given the possible sensitivity of the models’ results to the elasticity values, the researcher had to re-run the simulations under varying assumptions. Upper-bound and lower-bound limits were established for various elasticities (see Table 5.1).

Finally, given that the aim of the study was to determine the largest likely impact of BFTAs on Cote d’Ivoire, a ‘worst-case’ scenario was devised, using the upper-bound values by adding 4.

Appendix 3(a) reports on the sensitivity analysis and robustness tests for the trade-creation effects in Cote d’Ivoire after the adoption of a BFTA. Reducing the trade elasticity value to 0.5 shows no change of trade creation from the base case in Cote d’Ivoire. Likewise, increasing trade elasticities to 2 and 6 brings no changes to trade creation. The outcome shows that Cote d’Ivoire’s total change in imports remains the same in value, although the composition thereof changes, as economic agents substitute for the various imports.

Appendix 3(b) reports on the sensitivity analysis and the robustness tests on the revenue effect in Cote d’Ivoire after the implementation of BFTA. Reducing trade elasticity to 0.5 may reduce the revenue loss by 0.043 per cent. Increasing trade elasticity values to 2 and 6 would, respectively, increase the revenue loss by 0.025 per cent and 0.21 per cent. The results in the upper-bound and the worst-case scenarios compared to the base case, confirm that the responsiveness of imports to relative price changes is increasing, which has an effect on revenue. A 5 per cent margin of error on the lower-bound and upper-bound limits could be seen as conservative and acceptable; and the resulting deviations from the middle-ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 3(c) reports on sensitivity analysis and robustness tests on the welfare effect in Cote d’Ivoire after the implementation of BFTA. Reducing trade elasticity to 0.5 could increase the welfare gains by 0.022 per cent. Increasing trade elasticity values to 2 and 6 would, respectively, decrease the welfare gains by 0.011 per cent and 0.018 per cent. The margin of error can be seen

as conservative and acceptable, and the resulting deviations from the middle-ground results are insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(a) reports on sensitivity analysis and the robustness tests on exports in Cote d'Ivoire after the implementation of BFTA. Reducing trade elasticity to 0.5 might increase exports by 0.072 per cent. Increasing trade elasticity values to 2 and 6 would, respectively, increase exports by 1.84 per cent and 4.83 per cent. The deviations of expected change in exports as a percentage on lower-bound, upper-bound and worst-case scenarios from the base case are 0.068 percentage points, 1.7 percentage points, and 4.69 percentage points, respectively. The resulting deviations from the middle ground results are generally insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

Appendix 4(b) reports on the sensitivity analysis and the robustness tests on imports in Cote d'Ivoire after the implementation of BFTA. Reducing the trade elasticity value to 0.5 shows no change in imports from the base case in Cote d'Ivoire. Likewise, increasing trade elasticities to 2 and 6 brings about no changes to trade creation. The outcome shows that Cote d'Ivoire's total change in imports remains the same in value, although the composition thereof changes as economic agents substitute for the various imports.

10.4 Summary

This chapter has presented the empirical findings and an analysis of the revenue, welfare, imports, exports, and trade-creation implications of the BFTAs on Cote d'Ivoire. The presentation of the SMART simulation results and their analysis, which is aimed at addressing the research question posed in the study, will be further explored later in this study.

A bilateral free trade agreement would result in trade creation that would offset trade diversion, resulting in net welfare gains for Cote d'Ivoire. If Cote d'Ivoire removes all the tariffs against imports from its trading partners with bilateral trade agreements, and imposes an MFN on non-BFTA countries, this would result in trade expansion valued at US\$ 1.26 billion. Major

contributors to trade creation are: motor vehicles, nuclear reactors and electric motors, with import values of US\$ 35.32 million, US\$ 24.79 and US\$ 17.75 million, respectively (see Table 8).

For the importing country, in this case Cote d'Ivoire, trade diversion is neutral. It does not affect the overall imported quantity, but merely re-allocates market shares among the exporting partners, based on the new relative prices. The increase in imports from the BFTAs countries is balanced by a decrease in imports from the rest of the world, which result in trade diversion being equal to zero. Thus, trade creation is the only influence on total social welfare.

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$ 278 million, if the BFTA is implemented. Major contributors to this revenue loss in Cote d'Ivoire would be motor vehicles, cereals and electrical machinery.

SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at US\$ 61.09 million, by implementing the BFTA. However, the impact of the BFTA on welfare was insignificant in Cote d'Ivoire.

Cote d'Ivoire is expected to witness an increase in its exports and imports by US\$ 921.87 million and US\$ 817 million, respectively, if it implements the BFTA. The increase in imports is logically as a result of improvements in economic agents' cash flows, due to the low cost of imports, since tariffs would have been abolished.

From the above analysis, it is apparent that Cote d'Ivoire will on average lose by joining the BFTA. Government stands to lose significant revenue through the massive transformation of the current tariff structure. More so, the industry is threatened with closure due to trade creation effects. The welfare gains are insignificant to compensate both loss in revenue and possible effects of deindustrialisation like unemployment.

The study tested for robustness of the results. Based on the reports of sensitivity analysis and robustness tests, the results show that deviations from the middle ground results are generally

insignificant. Accordingly, the middle-ground estimates could be within sight of the potential sizes.

The next chapter summarises the research findings relating to the imports, exports, trade creation and trade diversion, and revenue, the welfare implications of the WAEMU customs union, the WAEMU FTA, the ECOWAS customs union, ECOWAS FTA, EPAs, WTO FTA and BFTAs on Cote d'Ivoire. The conclusions are drawn, based on the findings. The last section will put forward policy options that the policy-makers in Cote d'Ivoire may wish to adopt.

CHAPTER ELEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

11.1 Introduction

This chapter summarises the important findings of this study in relation to the research questions and the objectives, as articulated in Chapter One. It also provides possible recommendations – based on the findings, as well as highlighting the limitations and some suggestions for further study. Lastly, the study will hint at related area on the topic of this study, although not discussed in detail have contributed to much knowledge.

11.2 Research Summary

Trade liberalisation has generated a lot of interest around the world. The effects of trade liberalisation are not straightforward. Some countries with robust economic structures – particularly industrialised countries – have from it benefited immensely. In contrast, developing countries, which include Cote d'Ivoire, have lost out from early efforts to liberalise their economies, due to the fragile nature of their economies and the significant reliance of imports duties. In Africa, there is no conclusive evidence on the role and impact of trade liberalisation and globalisation on human development, livelihoods, social welfare and economic development (Githanga, 2015).

In a number of cases, liberalisation has been followed by misery, the destruction of poor peoples' livelihoods, damage to the environment, and the marginalisation of poor countries and their communities (Tekere, 2001).

On the other hand, recent studies show that potential sources on productivity growth in developing countries and emerging market arise from catch-up growth by absorbing technology

and ideas from advanced economies, structural change into higher productivity sectors, and improved resource allocation within sectors (Dabla-Norris et al, 2013).

There is a large literature that has shown that economic reforms that reduces barriers to efficient factor reallocation, technology adoption and innovation are associated with higher productivity growth. Higher quality and quantity of infrastructure and human capital, trade openness as well as efficient and well-developed financial systems, and economic institutions that promote competition, facilitate entry and exit, and encourage entrepreneurship and innovation have been variously found to increase productivity growth at the cross-country, industry and firm level (see OECD, 2013; Dabla-Norris 2013; Prati et al, 2013; Restuccia and Rogerson, 2013).

Cote d'Ivoire has witnessed a slowdown in its economy due to the global recession at the beginning of the 1980s which caused the prices of cocoa and coffee, Cote d'Ivoire's principal exports to fall. The recession combined with a soaring commercial interest rate truncated the growth of the Ivorian economy and aggravated tensions in an already fragile labour force. The government had to adopt the structural adjustment program in order to restore the economic stability it once enjoyed. The structural adjustment program consisted of government reduction of its spending, ensuring monetary tightening, eliminating subsidies for food, privatisation of public enterprises, reductions in barriers to trade. The goal behind the structural adjustment program was to decrease the public debt and at the same time increase exports and restore economic growth.

However, the impact on the economy was a complete failure of the policy, GDP per capital fell by 15 per cent, the intensity of poverty doubled, external indebtedness grew from 141 per cent to 175 per cent of GDP, there was also deterioration in the terms of trade (Kingston et al, 2011). During 1990 and 1995, spending on healthcare fell slightly and education fell dramatically.

The outcome of these policies has left the country without foreign exchange reserves, low incomes, low capacity utilisation, low FDIs, a decaying economic infrastructure and an ever-

increasing national debt, all of which have worked against the country's competitiveness. This has left the economy vulnerable to external forces, like foreign competition.

In order to consolidate gains in competitiveness and achieve high and sustainable growth, the Ivorian authorities coordinated efforts to establish and intra-regional custom tariffs among the member of the West African and Monetary Union (WAEMU). As evidenced in Chapter 3 Cote d'Ivoire's trade performance within the WAEMU region has shown positive results for the entire period of study. The country has literally maintained a positive trade balance with all of its trading partners. However, from 2010 to 2011 with partner country such as Benin there has been a decrease in the trade balance from US\$105.1 million to US\$87.5 million and an increase in the following year from US\$87.5 million and US\$124 million (see table 3.3). This inconsistency in Cote d'Ivoire's trade balance is exhibited with most WAEMU partner countries apart from Burkina Faso and Mali.

Cote d'Ivoire is even going further in making ambitious trade liberalisation measures under WAEMU, ECOWAS, ACP – EU, WTO and through bilateral trade agreements. It is against this background that the study empirically investigated the impact of different trade regimes, which were negotiated in the above trading arrangement in Cote d'Ivoire.

In order to conceptualise the topic, the following research questions were put forward in the introductory chapter: Has trade liberalisation led to trade creation for Cote d'Ivoire? Has trade liberalisation led to welfare gains? Is the Government of Cote d'Ivoire losing revenue, due to liberalisation? Has trade liberalisation led to an increase in imports? Has trade liberalisation led to an increase in exports? Is ECOWAS Cote d'Ivoire's major trading partner? If not, which trading bloc is the major trading partner?

Nine specific objectives were formulated to address these questions; and these specific objectives were: To evaluate the impact of WAEMU customs union on imports, exports, revenue, trade creation and diversion, and welfare implications for Cote d'Ivoire; to evaluate the impact of WAEMU FTA on imports, exports, revenue, trade creation and diversion, and welfare

implications for Cote d'Ivoire; to evaluate the impact of ECOWAS customs union on imports, exports, revenue, trade creation and diversion, and welfare implications in Cote d'Ivoire; to evaluate the impact of the ECOWAS FTA on imports, exports, revenue, trade creation and diversion, and welfare implications for Cote d'Ivoire; to evaluate the impact of EU FTA on imports, exports, revenue, trade creation and diversion, and welfare implications for Cote d'Ivoire ; to evaluate the impact of WTO FTA on imports, exports, revenue, trade creation and diversion, and welfare implications for Cote d'Ivoire; to evaluate the impact of bilateral agreements on imports, exports, revenue, trade creation and diversion, and welfare implications for Cote d'Ivoire; to come up with a trading block that is more beneficial to Cote d'Ivoire amongst WTO, EPAs, ECOWAS and WAEMU; and to analyse the implications of the study's findings for trade policy in Cote d'Ivoire.

In the light of these objectives, this study adopted one empirical framework. The model used in this study were the WITS/SMART model. The WITS/SMART model has all the caveats associated with a static partial-equilibrium analysis. Partial-equilibrium analysis may be sensitive to the elasticity parameters used and ignore interactions with other markets, although interaction can be modelled in PEM (Mkenda and Hangi, 2009). In this study three different elasticity scenarios were used to compensate for these shortcomings and to gauge the effects on the simulations.

The WITS/SMART model brings together various databases ranging from bilateral trade, commodity trade flows and various types of trade protection (Lang, 2006). WITS also integrates the analytical tools that support simulation analysis. The SMART simulation model is one of the analytical tools used in WITS for simulation purposes. SMART contains built-in analytical modules that support trade policy analysis, such as the effects of multilateral tariff cuts, preferential trade liberalisation and ad hoc tariff changes. It employs tariff data from the Trade Analysis and Information Systems (TRAINS) and the world trade organization integrated database (IDB-WTO) and consolidated tariff schedule (CTS-WTO). TRAINS has an advantage in that it uses harmonized schedule nomenclature and includes data from 1988. The (CTS-WTO)

contains binding tariffs, which are useful when commenting on the negotiated tariff schedules (Villa, et al., 2012).

The partial-equilibrium model allows for the evaluation of various trade policy regimes on government revenue, welfare, trade creation and diversion, which are the objectives of this study.

11.3 The Main Findings

Based on the evidence from the estimation of results of the empirical framework employed in this study, the highlights of the findings cover a summary of the results from the WITS/SMART model.

11.3.1 The Results of the WITS/SMART Model

The study provides a quantitative analysis of the likely implications of the WAEMU customs union, the ECOWAS customs union, WAEMU FTA, ECOWAS FTA, EPAs, BFTAs and WTO FTA on revenue, welfare and trade for Cote d'Ivoire. The study used the WITS/SMART partial-equilibrium model for the analysis.

The implementation of the WAEMU and ECOWAS customs union would require that member States align their national tariffs with those of the agreed CET. And, WAEMU FTA, ECOWAS FTA, EPAs, BFTAs and WTO FTA require that Cote d'Ivoire applies zero duties to all the member States in these trading blocs. The fulfilment of this requirement means a substantial transformation of Cote d'Ivoire's current tariff structure, since only 22.37 per cent of the total tariff lines are complying with the CET. An FTA is an even worse scenario for Cote d'Ivoire, considering that only 5.51 per cent of the tariff lines are duty-free, especially under circumstances where the customs revenue is increasingly becoming an important source of government revenue, with US\$1.84 billion in 2014 as opposed to US\$1.34 billion in 2000 (OECD, 2016).

Turning to the WITS/SMART simulations, the study provides some interesting and useful results, which would be helpful to policy makers in the ongoing trade negotiations. A notable result from the analysis is that the implementation of the WAEMU CET, ECOWAS CET, WAEMU FTA, ECOWAS FTA, EPAs, BFTAs and WTO FTA presents both benefits and challenges for the country.

(a) WAEMU Customs Union and WAEMU FTA

A notable result from the analysis is that the implementation of the WAEMU CET will present both benefits and challenges for the country. One of the benefits of implementing the customs union is the expansion of trade to the tune of US\$2.83 billion through trade creation in the WAEMU region. Closely related to the trade creation effect is the consumer welfare effect, which is also calculated in the WITS/SMART model. The simulation results show a gain in welfare valued at US\$8.67 million, following the adoption of the WAEMU CET.

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$292 million if the WAEMU CET is implemented.

Vehicles and parts will show the largest loss in revenue in Cote d'Ivoire as a result of the WAEMU CET with a 13.17 per cent of total loss in revenue (see Table 7.4). Overall, Cote d'Ivoire's exports are expected to fall marginally by 21.64 per cent; while imports are likely to increase by 0.0248, due to the trade-creation effect.

The WAEMU FTA would result in a trade creation that would offset trade diversion, thereby resulting in net welfare gains for Cote d'Ivoire. If Cote d'Ivoire removes all the tariffs against imports from the WAEMU region, and impose the agreed WAEMU CET on non-WAEMU countries, this would result in a trade expansion valued at US\$14.53 million. The WITS/SMART simulations estimate that Cote d'Ivoire would have a total fiscal revenue loss of US\$10.5 million if the WAEMU FTA is implemented.

The SMART simulation results reveal that Cote d'Ivoire would experience a gain in consumer welfare valued at US\$1.21 million by implementing the WAEMU FTA.

Overall, Cote d'Ivoire is expected to witness an increase in its exports and imports by US\$341.28 million and US\$11.23 million, respectively, if it fully implements the WAEMU FTA.

(b) ECOWAS Customs Union and ECOWAS FTA

Based on SMART simulations, Cote d'Ivoire is expected to witness a total trade creation of US\$1.49 billion from ECOWAS member States – and mainly from Nigeria and Ghana. There is no evidence of trade diversion in Cote d'Ivoire. The WITS/SMART simulations estimate that Cote d'Ivoire would have a total fiscal revenue loss of US\$285.86 million if the ECOWAS CET is implemented. Animal products, metals and foodstuffs are expected to be the major contributors of revenue losses in Cote d'Ivoire, with 30.82 per cent, 18.12 per cent and 13.37 per cent of total revenue loss, respectively if Cote d'Ivoire joins the ECOWAS customs union. One of the reasons for these findings is that the agricultural sector in Cote d'Ivoire remains very protected

The SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare, valued at US\$86.23 million by implementing the ECOWAS customs union. However, welfare gains are insignificant in Cote d'Ivoire. The ECOWAS customs union is expected to trigger a marginal decrease in exports in Cote d'Ivoire by 54.3 per cent. However, Cote d'Ivoire's imports are expected to rise by 0.87 per cent because of the trade-creation effects.

The WITS/SMART simulations estimate that Cote d'Ivoire would experience a total fiscal revenue loss of US\$28.9 million if the ECOWAS FTA is implemented. The major revenue loss comes from cigarette and lights oils and preparations, with a total loss of US\$5.9 million (see Table 6.9).

The SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at US\$37.8 million by implementing the ECOWAS FTA.

The major contributors to the welfare gains are floors, meals and pellets, worn clothing and other worn articles. The ECOWAS FTA is expected to cause trade creation that will offset trade diversion, resulting in net welfare gains in Cote d'Ivoire valued at US\$538.23 million. Major commodities, which top the Cote d'Ivoire trade-creation list, include cigarettes containing tobacco, light oils and preparation, fish and quicklimes.

Overall, Cote d'Ivoire's exports and imports are expected to increase by 0.17 per cent and 0.043 per cent, respectively, if the country adopts the ECOWAS FTA.

(c) EPAs

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$294 million if the EPAs are implemented. The SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at US\$28.82 million by implementing the EPAs.

By implementing a full EPA with the EU, Cote d'Ivoire would have trade creation that would offset trade diversion, resulting in net welfare gains for country. If Cote d'Ivoire removes all the tariffs against imports from the EU, and imposes the agreed EU CET on non-EU countries, this would result in a trade expansion valued at US\$3.25 billion. Overall, Cote d'Ivoire's exports and imports are expected to rise by US\$459.41 million and US\$339 million, respectively.

(d) The WTO FTA

The WITS/SMART simulations estimate that Cote d'Ivoire is likely to experience a significant fiscal revenue loss of US\$787.74 million if the WTO FTA is implemented. The SMART simulation results reveal that Cote d'Ivoire will experience a gain in consumer welfare valued at

US\$87.19 million by implementing the WTO FTA. Tobacco and motor vehicles are major contributors to welfare gains in Cote d'Ivoire.

Cote d'Ivoire would have a trade creation effect that would offset trade diversion, resulting in net welfare gains for Cote d'Ivoire if it goes for an FTA under the WTO arrangement. If Cote d'Ivoire removes all the tariffs against imports from the WTO group, and imposes the agreed WTO CET on non-WTO countries, this would result in a trade expansion valued at US\$1.33 billion. For the importing country, in this case Cote d'Ivoire, trade diversion is neutral. It does not affect the overall imported quantity; but it re-allocates the market shares among the exporting partners, based on the new relative prices.

The increase in imports from the WTO countries is balanced by a decrease in imports from the rest of the world, which would result in trade diversion being equal to zero. Thus, trade creation is the only influence on the total social welfare.

Overall, if Cote d'Ivoire unilaterally liberalises its trade within the WTO context, its exports and imports are expected to increase by US\$950 million and US\$1.33 billion, respectively.

(e) BFTAs

The WITS/SMART simulations estimate that Cote d'Ivoire will have a total fiscal revenue loss of US\$278 million if the BFTA is implemented. Major contributors to this revenue loss in Cote d'Ivoire are motor vehicles, and cereals. The SMART simulation results reveal that Cote d'Ivoire would experience a gain in consumer welfare valued at US\$61.09 million by implementing the BFTA. The Bilateral free trade agreement would result in a trade-creation that would offset trade diversion, resulting in net welfare gains for Cote d'Ivoire. If Cote d'Ivoire removes all the tariffs against imports from its trading partners with bilateral trade agreements, and imposes an MFN on non-BFTA countries, this would result in trade expansion valued at US\$1.26 billion.

Overall, Cote d'Ivoire imports and exports are expected to rise by US\$817 million and US\$921.87 million, respectively, if it implements the BFTA with its top-ten trading partners.

11.4 Conclusion

Using the WITS/SMART results, a unilateral free trade agreement in all seven scenarios (that is, ECOWAS customs union, WAEMU customs union, ECOWAS FTA, WAEMU FTA, EPAs, WTO FTA and BFTA) shows that Cote d'Ivoire stands to create trade in all the trade groupings. However, the WTO FTA yields the largest increase in trade, followed by BFTA, ECOWAS, EPAs and WAEMU. Although the trade-creation effects means more revenue for Cote d'Ivoire, it is likely to cause outsourcing and unemployment, as the economy is still recovering from a decade-long of political turmoil. There was no evidence of trade diversion in any of these scenarios.

This study supports the views of the sponsors of trade liberalisation, that is, the World Bank and the IMF, trade liberalisation leads to an increase in exports and a paradigm shift in the exports composition caused by technology transfer and FDI's, Cote d'Ivoire's export growths appears to be substantial after trade reforms. In addition, the composition of exports remained the same, with traditional products such as tobacco, minerals and agricultural products dominating the export basket. Moreover, both the geographical import sources and the export destinations remained concentrated in traditional countries, such as France, Ghana, Nigeria, South Africa, Belgium, Germany, the United Kingdom, the Netherlands, USA, and China.

This, therefore, means that Cote d'Ivoire failed to utilise the additional market access created through trade liberalisation.

The study shows that ECOWAS is outstandingly Cote d'Ivoire's major trading bloc, followed by the rest of the world, EU and WAEMU. From this study, it was observed that Cote d'Ivoire's multiple membership does not aid its trade, as this trade was skewed towards ECOWAS only. Rather, it creates a potential "noodle-bowl" situation, which impedes the effective use of the FTAs – a similar situation observed by Fukunaga and Isono (2013) in Asia, particularly when Cote d'Ivoire has signed the ECOWAS customs union, which contradicts the WAEMU CET

trading protocol. This situation is complex and creates confusion on the application of rules of origin for countries which have dual membership like Cote d'Ivoire.

The WITS/SMART results show that the benefits of trade liberalisation failed to compensate for the losses in Cote d'Ivoire. In many cases, trade liberalisation has seen welfare gains falling short of revenue loss – on average by more than 5 times. Although trade creation is beneficial in terms of welfare gains, as argued by Viner (1950), Bhagwati (1996) and Panagariya (2000), in Cote d'Ivoire, welfare gains in all seven trading protocols evaluated in this study were insignificant.

Hence, for Cote d'Ivoire to gain from trade liberalisation, it has to increase its investment in export quality and price so as to increase the consumer-welfare effects, the revenue effect and increase export quantities.

The seven categories of trade liberalisation evaluated in this study showed different impacts on Cote d'Ivoire. Firstly, the WTO FTA was the most threatening to the Ivorian economy. Unilateral liberalisation in the WTO has three immediate consequences, which are: deindustrialisation, revenue loss and balance-of-payment problems. With respect to deindustrialisation, the local industries with output valued at US\$1.33 billion stand to be displaced from the market.

With respect to revenue, Cote d'Ivoire stands to lose significant revenue registering US\$787.74 million upon liberalising its trade within the WTO context. The WTO FTA, according to this study, is likely to result in an increase in exports, but at a rate that is far below the increase in imports in absolute terms, thereby posing a balance-of-payment problem.

Secondly, the BFTAs come next after the WTO FTA in terms of creating danger for Cote d'Ivoire's economy. The BFTAs are likely to cause the closure of industries, a revenue loss, and a trade surplus. With respect to deindustrialisation, local industries with output valued at US\$921.87 million stand to be displaced from the market. With respect to revenue, Cote d'Ivoire stands to lose revenue registering US\$278 million, which was found to be significant in this

study. Unlike the WTO FTA, the BFTAs are likely to result in a trade surplus amongst member states within the BFTAs, thereby improving the balance-of-payment problems.

However, it is worth noting that the trade surplus that ensued due to BFTAs is insignificant and falls far short of compensating for the loss in revenue and trade-creation effects.

Thirdly, the ECOWAS FTA in this study is ranked third in its impact on Cote d'Ivoire. The ECOWAS FTA poses devastating consequences for Cote d'Ivoire in terms of revenue loss and trade creation of US\$28.9 million and US\$538.23 million, respectively. The impact of revenue loss was found to be insignificant in this study. Interestingly, the study shows that the ECOWAS FTA generates exports, which exceeded the imports by a small margin.

Fourthly, the WAEMU customs union is next after ECOWAS FTA in terms of its impact on Cote d'Ivoire. The WAEMU customs union has three devastating effects on Cote d'Ivoire, that is: trade-creation effects which could lead to industrial closure, revenue loss and contributions to the balance-of-payment problems. With respect to the trade-creation effects, local industrials with industrial output of US\$2.83 billion are likely to be displaced. On the one hand, a potential revenue of US\$292 million is likely to be lost in the event of the establishment of a WAEMU customs union. On the other hand, the exports are likely to fall by 2.23 per cent; while imports would be likely to increase by 2.48 per cent, thereby posing a threat to the balance-of-payment problems.

Fifthly, with the ECOWAS customs union, imports are likely to surge by US\$677 million; while a significant revenue loss of US\$286.85 million could be expected. The trade-creation and revenue effects of ECOWAS customs union on Cote d'Ivoire are interestingly lower than those of the ECOWAS FTA.

Sixth, the EPAs on balance are not beneficial to Cote d'Ivoire, as the country expects to witness a displacement of industries by more efficient firms from the EU by US\$322.55 million and revenue loss of US\$294 million. The gains derived from the expected trade surplus would be less than what is needed to reverse these expected losses.

Seventh, the WAEMU FTA offers the lowest trade gains and losses to Cote d'Ivoire. Both trade creation and revenue losses are insignificant. And, although the expected increase in exports exceeds imports, the trade surplus is nevertheless small.

To sum up, in all seven trade agreement frameworks evaluated in this study, contrary to developed countries and emerging markets, the costs of trade liberalisation in terms of trade creations and revenue loss exceeds the benefits (that is, welfare benefits and increase in exports) in Cote d'Ivoire.

11.5 Policy Recommendations

Based on the results discussed in this study, the Government of Cote d'Ivoire and the relevant stakeholders could apply policy prescriptions tailored to address the revenue loss, increases in exports, exports composition, expanding welfare gains and competitiveness.

11.5.1 Mitigating Revenue Loss

In this study, the loss of government revenue turned out to be a major challenge across all the trade reforms Cote d'Ivoire undertook. It is in line with this, that the researcher recommends the following in dealing with the loss of tariff revenue in Cote d'Ivoire.

(a) Expanding Revenue Base from Domestic Sources

The government of Cote d'Ivoire should place greater emphasis on targeting cost-based incentives rather than profit-based ones to improve the efficiency of the tax incentive. At the international level Cote d'Ivoire might also gain by coordinating their tax incentive policy regionally. This would help to mitigate the negative spillover from tax competition.

Cote d'Ivoire needs to broaden the tax base and consider improving the collection of revenue from alternative sources, such as personal, corporate tax and excise duty, in order to cushion

itself against the revenue loss impact of trade liberalisation. In addition, the country should reconfigure the income tax bands, so that they become more progressive, thereby raising more revenue. The government of Cote d'Ivoire can also consider widening the tax base by taxing the informal sector, which has been growing rapidly in the past years. And, fiscal authorities can also consider VAT as an important trade policy instrument that could be used to mitigate the loss of revenue due to trade liberalisation, as suggested by Gourdon, Monjon and Poncet (2015), Waglé (2011) and Lang (2006).

(b) Strengthening and Capacitating Revenue-Collection Institutions

Many developing countries, like Cote d'Ivoire, as noted by Waglé (2011) have criticised weak tax administrations, as well as large informal sectors (with unrecorded or illicit transactions) coupled with the high cost of administering its results in a narrow tax base. A decade long of political instability, Cote d'Ivoire has seen an expansion of the informal sector, which has become a dominant feature of the Ivorian economy. The government of Cote d'Ivoire can also enhance its revenue administration by bolstering the large taxpayer office, putting up a medium-size taxpayer office, and strengthens tax and customs' controls and audits.

This study, therefore urges developmental partners, such as the IMF, the World Bank and the European Union to recognize the importance of tariff for a country like Cote d'Ivoire and assist in establishing a sound tax system, which replaces import tariff correction as a pivotal source of income. Progressive liberalisation of tariffs in the EPA is also important to Cote d'Ivoire in order to limit the damage of the EPA.

The IMF (2013) pledged to continue to provide significant and long-standing technical assistance for data improvements, customs reform, and tax and tariff reform – including mitigating the revenue implications of trade liberalisation. Cote d'Ivoire could take advantage of this pledge. Capacity-building under the current national development plan would also help the country to deal with other sources of revenue leakages outside the informal sector, such rampant transfer

pricing, which is bedevilling Africa's fiscal space. Cote d'Ivoire is no exception to this corrupt practice.

Developing economies tend to rely disproportionately on import duty revenues, particularly when compared with more developed countries. However, both developed and developing countries have become less reliant on customs duties and other trade taxes since the 1980s (Bilal et al, 2012). Hence trade liberalisation in the context of the EPA negotiations has therefore occurred against the backdrop of a wider global push for more open trade and declining trade tax revenues.

Keen and Mansour (2009) argued that at the aggregate level, some of the burden of replacing custom duties has fallen on indirect taxation, especially with the introduction of sale of value added taxes. Hence, it is pertinent that Cote d'Ivoire strengthen its domestic tax-collection systems.

(c) Organising the Informal Sector

The Government of Cote d'Ivoire, through its national development plan policy, may need to encourage the informal sector to form business clusters. A business cluster involves the amalgamation of individual small enterprises or interconnected business into a formidable force. This has two clear benefits. Firstly, this would help them to build critical mass, and help the formerly weak informal trader to bargain with other established businesses on the same wavelength. Hence, the informal sector is incentivised to comply with the move, thereby making it easy to implement. Secondly, because the informal sector is now organised into a big entity, government should find it easy to collect those domestic taxes, which were previously evaded by this sector, such as pay as you earn (PAYE), VAT, corporate tax and excise duties. This will help mobilize higher domestic revenue and help towards achieving the country's national development program objectives.

(d) Implementing Presumptive Taxes on the Informal Sector

In Cote d'Ivoire some informal sectors are difficult to organise into a big entity, such as street vendors. These are hard-to-tax sectors; and they complicate tax replacement. In order to collect tax revenue from this sector, whilst abiding by the principles of an efficient tax collection mechanism of simplicity, cost effective, easy to collect and easy to administer, a presumptive tax would be ideal for this sector. A presumptive tax is a lump sum tax paid by an operator valid for a period of time. The amount of presumptive tax is determined by government, based on the size of the economic activity undertaken by such businesses. Traditionally, this is enforceable upon renewable of trading licences. Cote d'Ivoire could adopt this method and allow it to be implemented by local authorities that collect revenue on behalf of government. Presumptive tax has been successfully used in the transport business in India, Belgium, Israel and China.

(e) Using Sensitive Lists to Mitigate Revenue Loss

The agreement by member States to have a basket of sensitive products would help to reduce the revenue loss for Cote d'Ivoire. In this regard, Cote d'Ivoire's negotiators should push for sensitive products that would not be subjected to tariff reduction for some time. This is crucial, as it gives member States the needed policy space to develop their sensitive products. In this regard, Cote d'Ivoire needs to consider putting motor vehicles, cereals, electrical machinery and equipment, edible vegetables and tubers, meat, aircraft and spacecraft, rice, mineral fuel and tobacco, as part of its revenue-sensitive products. The inclusion of these products on the sensitive list would, in the short run to medium term, help Cote d'Ivoire to mitigate its revenue loss, while building its domestic tax revenue capacity.

(f) Apply for Effective Structural Adjustment Programmes

Tax and fiscal reforms are the primary areas where the EU could provide assistance and support for the effectiveness of structural adjustment in ECOWAS countries induced by an EPA. Cote d'Ivoire should make use of the Cotonou Agreement, which is designed to assist member States that incur adjustment costs due to tariff reductions. It is agreed that special consideration will be

given to countries which face budgetary adjustments due to regional integration and EPAs. Therefore, in the EPA agreement, Cote d'Ivoire can ask the EU to provide grant-financing for tariff revenue losses until the tax reform is completed. In addition, the EU should support Cote d'Ivoire for a longer time to provide the country with an incentive to ensure that it benefits as much from the EPAs as the non-less developed countries.

Hence, Cote d'Ivoire stands a chance to benefit from the EU if it provides bankable projects on infrastructural projects aimed at trade facilitation. It is therefore important that the country starts to look at its terms of trade cautiously.

The ECOWAS Bank for Investment and Development (EBID) should also assist member States who lose revenue through trade liberalisation. This, if it comes into being, could benefit Cote d'Ivoire significantly, since it has dual membership both in WAEMU and ECOWAS.

In other trade arrangements, such as the WTO, Cote d'Ivoire, together with other member States, should not accept an outcome without aid for trade. The IMF, the Africa development Bank, the EU and other multilateral financial institutions should provide assistance to Cote d'Ivoire in mitigating its revenue loss.

(g) Slow Tariff Phase-Down

In line with suggestions of Lang (2006), this study proposes that Cote d'Ivoire may need to lower its tariffs on imports in a gradual way, so as to smooth the fall in its budget revenues. Cote d'Ivoire could do this in two ways. Firstly, it could appeal to member States within the various trading blocs in which it is participating to be exempted from a tariff phase-down, a provision given in the trade agreement as derogation. Cote d'Ivoire needs to stand its ground, in order to be heard by its fellow member States, since the country has been through a decade-long economic meltdown, which has left its economy on its knees and increased poverty.

Secondly, Cote d'Ivoire could persuade other member States, as a region, to slow down its reform agenda, a move already happening within ECOWAS on the establishment of the new

common external tariff for West Africa. Steps have been put in place for the CET to be adopted and implemented by all members countries. For Cote d'Ivoire and other member States in WAEMU, ECOWAS, EU and WTO there is no urgency to liberalise under the current environment, which has seen renewal of protectionism in the developed countries as they grapple to stimulate growth after the global economic crisis and its aftermath.

(h) Reducing Technical barriers to trade

The technical barrier to trade agreement aims to ensure that technical regulations, standards and conformity evaluations procedures do not create hindrance to trade and are not discriminatory. In Cote d'Ivoire trade facilitation is hindered by national trade barriers. Among these technical barriers this study points corruption and poor infrastructure, duplication of inspection, border post checks. Indeed, there is a great number of checkpoints along various trade routes which need to be addressed in order to reduce delays especially for the fragile agricultural products. Member countries also need to share border management responsibility to facilitate trade and reduce unnecessary obstacles to trade.

11.5.2 Exports Promotion Strategies

The SMART simulation results show that Cote d'Ivoire's trade agreements are expected to lead to a marginal increase in exports. It is prudent that the country should work on a number of measures aimed at boosting exports. Against this background, this study recommends that the government and the relevant stakeholders should establish a supply-side facility, export subsidies, export-processing zones, trade finance, and trade-promotion organisations.

(a) Establishing a Supply-Side Facility

Government needs to put in place a capacity utilisation and a re-tooling loan facility to encourage industries to increase their capacity utilisation and to boost their efficiency and competitiveness. This would enable the country to build industrial capacity and produce for export.

Alternatively, government may consider setting up a sovereign wealth fund together with a stabilisation fund. Sovereign wealth fund will create a unique opportunity for a country like Cote d'Ivoire which relies heavily on its commodities prices. It will allow the country to save foreign capital during good times and help withstand macroeconomic challenges during low growth period.

The stabilisation fund will provide funds quickly when commodity prices fall, hence it should be invested in safe, liquid assets. In this way, stabilisation funds are similar to the foreign reserves of a central bank (Al Sweilem, 2015).

International practice has shown that countries have used their own resources to create a sovereign wealth fund to build a national fund.

Cote d'Ivoire could, therefore, use its recent oil discovery to create a sovereign wealth fund. Also, measures aimed at plugging smuggling of precious minerals, such as gold and diamonds, and ensuring transparency, accountability and the eradication of corruption, should be put in place.

(b) Export subsidies

Bello and Di Maio (2011) identified two key export subsidies a nation can employ to stimulate exports, that is, a direct export subsidy and a duty drawback.

Direct export subsidies, which could be applied by Cote d'Ivoire, could take the form of tax incentives or financial assistance (grant). With respect to tax incentives, government may waive tax payment for a company, which reaches a set export threshold, thereby promoting exports. Thiga and Muturi (2015) supported the use of tax incentives by governments to exporting companies reaching a specified threshold. A financial grant could be used for struggling firms, especially SMEs, so that they can build capacity to export. This will help support a positive trade balance with the country's trade partners.

With respect to duty drawback – Cote d’Ivoire need to adopt the duty drawback systems as its trade-policy instrument, this has not been implemented due to tight fiscal space since the government is in a process of rebuilding the country’s infrastructure. This study therefore recommends the use of a duty-drawback system. Also, for it to be successful, government must reduce red tape and bureaucratic procedures in its application. In addition, it must be implemented in line with the provision of the WTO. If executed properly, the input cost used in production is expected to fall, thereby improving the competitiveness of Cote d’Ivoire’s exports.

(c) Export-Processing Zones (EPZs)

Cote d’Ivoire has struggled to generate structural transformation of its economy, especially changing its exports structure from a strong dependence on natural resources and increasing its production value. The establishment and the use of EPZ is related to remarkable industrial development and economic success (Dihn et al, 2012). These zones aim to enhance and diversify exports, creating employment and foreign exchange earnings by the accumulation of foreign capital. Farole (2010a) defines Export Processing Zones (EPZs) as demarcated geographical areas within a country, which are given preferential treatment. The host of afforded to EPZs include inter alia subsidies, domestic taxes and custom-duties exemption, favourable regulatory policies and good public provision.

EPZ aim to facilitate, and offer the possibility for long term investment in plants, social infrastructure and equipment. FDI is today the largest component of international capital flows, and has been an important component of the success of the Asian tigers, China and India (Todaro and Smith, 2009; Stein, 2012).

Foreign investors bring ideas and skills to the host country and may have important demonstration effects such as knowledge leaks and technology spillover (Todaro and Smith, 2009). Based on the success of EPZs around the world, this study recommends the revitalisation of EPZs in Cote d’Ivoire.

Zeng (2015) recently concluded, for example, that the experiences of EPZs have been disappointing in most African countries, which he explains by poor institutions, weak governance and inadequate infrastructure (among others). Hence Cote d'Ivoire should try to strengthen their domestic institutions and improve its transparency in order to benefit from the EPZs.

(d) Trade finance

The availability of finance is vital for a healthy trading system. Almost 80 per cent of global trade is supported by some sort of financing of global insurance (WTO, 2015). Without the necessary trade finance, the opportunity for growth and development are missed. Small and medium sized enterprises in Cote d'Ivoire face the greatest hurdles in accessing financing on affordable terms. One of the most important obstacles to industrial development is a weak financial market, in which producers may face credit constraints and experience difficulties in finding the necessary resources to finance their investments. These challenges are synonymous with Cote d'Ivoire's situation. Lack of access to trade finance is key obstacle to low-income countries such as Cote d'Ivoire participating in global values chains.

Hence, this study recommends the government to provide:

- The improvement of the capacity of the local banking sector to support trade
- A continued effort by the African Development Bank and other partners for development to improve trade financing in Cote d'Ivoire
- Foreign currency revolving funds, which is granting credit by the exporters' banks to pay for the imports of intermediate inputs;
- Pre-shipment export finance guarantee schemes, which are targeted at exporters or potential exporters that have no sufficient proof of creditworthiness by collateral, but have export letters of credit;
- Matching grant schemes, which are targeted at potentially successful exporters that overestimate the risk of the exporting project and so under-invest in it.

Some of the big economies in Africa namely, South Africa, Nigeria and even Kenya are trying to do more by mobilizing resources and channel them to this market.

However, these measures should be taken in line with the provision of the Articles 1.1(b), 10, 14, and 19 of the World Trade Organisation Agreement on Subsidies and Countervailing Measures (ASCM). These rules impose that premiums for export credit guarantees should be adequate to cover non-performing trade credit and operating costs.

(e) Strengthen the Capacity of Export-Supporting Institutions

The mission of the trade promotion organizations (TPOs) is to facilitate the exchange of information, reduce the problems of imperfect information, with the aim of increasing and diversifying exports. TPOs usually rely on a network of offices abroad, in order to facilitate their information-gathering on foreign markets and sales opportunities. TPOs provide a number of services which benefit both the private and the public sector including: (a) Dissemination of information on export markets; (b) assistance in export marketing; (c) packaging and labelling; (d) quality standards management; (e) general training on export activities; (f) legal assistance; (g) assistance in obtaining export financing; and (h) trade missions and trade fairs.

TPO network has grown substantially since its inception. International experience has shown that TPOs are instrumental in expanding countries' exports. South Korea, for example, established the Korean Trade and Investment Promotion Agency (KOTRA). This was founded in 1962; and it now counts about 97 offices abroad (Kang, 2010). KOTRA established over 78 overseas offices responsible for information dissemination on foreign business practices, cultural and market conditions; and it directly supports firms through its overseas investment support centres. This testifies that the network of the KOTRA offices located abroad has been a critical factor in the success of South Korea's exports (Kang, 2010).

Cote d'Ivoire, like other countries, established the association for the promotion of exports of Cote d'Ivoire (APEXI) as its TPO, but unlike other international TPOs, it has only a local office; and it relies on its ministry, which have more of a political configuration than one of trade. It is

against this background that this study recommends that APEXI should be capacitated through financial support, human capital development, and by broadening its geographical outreach in Cote d'Ivoire, so that it can take centre stage in knowledge management and information dissemination related to market access for various sectors of the economy.

11.5.3 Improving the Competitiveness of Cote d'Ivoire's Products

As shown from the results of this study, Ivorian industry is under siege from foreign imports, as prices are expected to fall due to increased competition. All trade agreements show that trade creation is significant. Trade creation poses threat to Cote d'Ivoire's products being displaced from the market a situation which is causing de-industrialisation. In order to counter this problem, Cote d'Ivoire should work on improving the competitiveness of its products; and the following measures are preferred by this study.

(a) Storage of food crops

The government of Cote d'Ivoire's revenue which relies mostly on commodity prices revenue face enormous challenges due to the price volatilities of these commodities. Hence, the study recommends a system of reserve or food security stock which will allow commodities to be stored when the demand is low. This will allow farmers and government to be protected against low commodity prices.

(b) Grouping and protection of a sensitive list of products

Cote d'Ivoire, in order to save inefficient industry from total collapse – due to displacement of local products by efficient foreign firms – there is a need to compile a list of products, so that they can be exempted from trade liberalisation. These products should include motor vehicles, cereal and other seeds, onions and shallots, cement clinkers, aerials and aerial reflectors of all kinds, meat and other edible meat, Dinonyl or Didecyl orthophtalic acid, Light oil and preparation and other, Rocket launcher, grenade launcher and others, and Tanks and other

armoured fighting vehicles. This list includes those major products, which suffered from trade creation in Cote d'Ivoire.

The first five product lists are also revenue-sensitive. Hence, this presents the Government of Cote d'Ivoire with an opportunity to seriously consider these products as safety measures. Adopting these products on the sensitive list for saving de-industrialisation would save not only the industry from collapse; but it also has a multiplier effect of increased revenue generation, as the saved industry would generate sustained employment, which would bring more fiscal space from improvements in PAYE, VAT, excise duties and corporate tax.

However, the challenge that the government has to grapple with is to ensure that the total list of sensitive products, which are either revenue-sensitive or sensitive to industry and employment, should not exceed the 20 per cent allowed under all trade agreements provided under the multilateral rules for less than full reciprocity in liberalisation.

(c) Creation of buffer stock accounts and facilities

Anderson, Chijoriga, and Philemon (2014) noted that it is necessary for a country that engages in trade to have a buffer stock. They argued that in the course of export business many unforeseen circumstances arise. Hence, this will serve as revenues or reserve inputs as precaution or safeguard against unforeseen shortages or demands.

The government of Cote d'Ivoire may need to set up an adaptation facility in order to resuscitate companies displaced by foreign firms through trade creation and diversion as suggested by Lang (2006). This study reveals that companies involved in the production of motor vehicles, cereal and other seeds, onions and shallots, cement clinkers, aerals and aerial reflectors of all kinds, meat and other edible meat, Dinonyl or Didecyl orthophtalic acid, Light oil and preparation and other, Rocket launcher, grenade launcher and others, and Tanks and other armoured fighting vehicles are under threat from foreign competition. Hence, the adaptation facility should focus on these products.

In addition, with the use of its vast minerals, these industries should be able to build reserves of their own funds, which it could use to mitigate revenue loss. However, measures aimed at plugging the smuggling of precious minerals, such as gold and diamonds, and to ensure transparency, accountability, and the eradication of corruption, should be put in place.

(d) Investment in infrastructure development

The recent economic performance in Cote d'Ivoire has been impressive. However, challenges remain especially in ensuring inclusive growth and the structural transformation of the economy. The current state of Cote d'Ivoire's infrastructure shows that it is affecting the country's productivity and competitiveness (IMF, 2016). The structural transformation requires revamping the infrastructure of the economy.

The infrastructure gap in Cote d'Ivoire results in inefficiencies which creates additional cost to the country. Foster and Pushak (2010) found that the most serious inefficiency as far as infrastructure is concerned in Cote d'Ivoire is underpricing of power which results in a financial loss of around US\$0.2 billion. Cote d'Ivoire has to improve its competitiveness by restoring its infrastructure, which collapsed during a decade-long economic decay. In the short-to-medium term, Cote d'Ivoire should work on improving supply constraints in electricity, roads, water and ICTs.

Farole (2011) finds a strong correlation between infrastructure quality and levels of investment, exports, and employment within EPZs. Energy supply and pricing may have a severe effect on the competitiveness of African manufacturing firms (Farole, 2011).

An improvement in the availability of these infrastructures would enhance productivity and allow the economy to be diversified, which would result in the improved efficiency and competitiveness of domestic products.

11.5.4 Improving Welfare

Improvements in competitiveness and exports generation, once achieved, are expected to significantly improve the welfare of consumers in Cote d'Ivoire. However, in addition, this research makes the following suggestions to improve consumer welfare in Cote d'Ivoire:

(a) Managing Consumer Surplus and Trade-Creation Effects

From this study, all the trade agreements Cote d'Ivoire is implementing showed trade creation. This is welfare-enhancing, according to Viner (2014), as consumers would continue to buy the same goods from foreign firms, but at lower prices. However, according to Lang (2006), trade-creation benefits can be theoretical if the market is dominated by an oligopolistic market structure that forms cartels in determining prices, thereby failing to pass on the benefits of trade creation to Cote d'Ivoire's consumers.

The EU-ACP Economic Partnership Agreement provides instruments intended to place trade reforms firmly in the service of development and regional integration. Schmieg (2016) noted that duty-free and quota-free access to the European Union since January 2008 with improved rules of origin creates new market opportunities that have not been offered by any other industrialised country. This is an opportunity for Cote d'Ivoire to improve development processes especially in the field of processed agricultural products.

This study recommends the strengthening of competition policy capacities and the legal systems of the custom space and the Consumer Association of Cote d'Ivoire, in order to ensure that trade liberalisation delivers its potential benefits.

(b) Taxes and Spending

Trade economists which include McCulloch, Winters and Cirera (2001) underscored that in most cases trade liberalisation may lead to a loss of government revenues as import tariffs are lowered

or eliminated, and that in an effort to fiscal space, governments may cut social expenditures or impose new taxes which could disproportionately affect the poor.

Recent study also conducted by Bilal et al (2012) points out that trade liberalisation is associated with revenues losses. Since revenue loss is one of the major challenges to Ivorian economy established in this study, there can be temptation for Government of Cote d'Ivoire to cut social expenditure and raise taxes on consumers thereby worsening consumer plight. It is against this background that this study recommends that government should first consider poverty effects of alternative forms of taxation which it may introduce to cover any shortfall especially consumption taxes. Conversional wisdom argues that it is generally possible to protect social and anti-poverty expenditures even if expenditures do decline.

11.6 Limitations of the Study

The models used in this study, that is, WITS/SMART models is a static model. Hence, they do not take into account second-round effects. The static nature of these models did not present a problem in this study, as the major attention was focused on the short-term effects, which are built on the static models. However, it is important to note that the model used only considers static gains, and does not take into account the dynamic factors associated with trade liberalisation. Other factors that have to be taken into consideration are the increased competition, which results in quality products and cheaper products; the increased efficiency in domestic industries; and the increase in technology and human-capital improvement.

In addition, the study did not evaluate the impact of trade liberalisation on output and employment in the TRIST model, because of the lack of the relevant data from Cote d'Ivoire custom officials. However, this setback did not affect the results of this study, since the effect of trade policy on production was outside the objectives of this research.

11.7 Suggestions for Future Research

This study focused on the static effects of revenue, trade and the welfare implications of the WAEMU customs union, WAEMU FTA, ECOWAS FTA, ECOWAS customs union, WTO

FTA, EU FTA and BFTAs on Cote d'Ivoire. There is a need for future studies to go further, by analysing these implications in relation to the country's economic development and growth.

- The comparative analysis of the effects of trade liberalisation on Cote d'Ivoire using the Gravity model, the Computable equilibrium model and the Econometric analysis on trade, economic growth and development.
- The assessment of the impact of WAEMU/ECOWAS trade liberalisation on small and medium enterprises through a comparative analysis of Cote d'Ivoire and Nigeria.

Future studies should also try to explore the implications of regional integration, using a general-equilibrium model which captures the macroeconomic framework of trade policy in Cote d'Ivoire. GE models allow for more robust analysis of trade policy, since they capture both the first- and second-round effects, which include the inter-industry effects and macroeconomic adjustments.

In the near future, with the availability of the data, the impact of trade reforms on output and employment, using the TRIST model, would need to be evaluated.

REFERENCES

Abbott, P., Bentzen, J. & Tarp, F. 2009. Trade and development: Lessons from Vietnam's past trade agreements. *World Development*, **37**(2): 341-353.

Abdemalki, L., Sandretto, S.M. & Jallab, S. 2007. The Free Trade Agreement between the United States and Morocco: The importance of a gradual and asymmetric. 93 Chemin des Mouilles: *Groupe d'analyse et de theorie economique*.

AFDB. 2015. Socio Economic Database Online.

African Development Bank Group. 2013. Cote d'Ivoire: Combined 2013-2017 Country Strategy Paper and 2013 Portfolio Review. [Online]. Available: http://www.afdb.org/fileadmin/uploads/afdb/Documents/C%C3%B4te_d_Ivoire_-_Combined_2013-2017_Country_Strategy_Paper_and_2013_Portfolio_Review.pdf [Accessed 28 January 2016]

African Economic Outlook. 2014. Cote d'Ivoire. [Online]. Available: <http://www.oecd.org/dev/36739479.pdf> [Accessed 28 January 2016]

African Economic Outlook. 2014. Global Value Chains and Africa's Industrialisation. [Online]. Available: www.africaneconomicoutlook.org/sites/default/files/content-pdf/AEO2014_EN.pdf [Accessed 28 March 2016]

Agbodji, A., 2008. The Impact of Sub-Regional Integration on Bilateral Trade: The Case of UEMOA, AERC Research Paper 186.

Agosin, M.R. 1991. Trade Policy Reform and Economic Performance: A Review of the Issues and Some Preliminary Evidence, UNCTAD Discussion Papers, No. 41.

Agritrade. 2014. Cote d'Ivoire Trade Policy Dilemma Highlighted. [Online]. Available: <http://agritrade.cta.int/Agriculture/Topics/EPAs/Cote-d-Ivoire-trade-policy-dilemma-highlighted>. [Accessed 20 November 2015]

Alfieri, A., Cirera, X. and Rawlinson, A. (2006). Estimating the Impact on Mozambique of Different Trade Policy Regimes: SADC, SACU or MFN?

Al Sweilem K. A. (2015). A Stable and Efficient Fiscal Framework for Saudi Arabia. Belfer Center Report. Harvard Kennedy School.

Amiti, M. and Konings, J. 2007. Trade Liberalization, Intermediate Inputs, and Productivity: Evidence from Indonesia. *American Economic Review* 97 (5): 1611-38.

Amponsah, W. (2002). Analytical and Empirical Evidence of Trade-Policy Effects of Regional Integration: Implications for Africa, UNECA.

Ancharaz, V., Mbekeani, K. and Brixiova, Z. 2011. Impediments to Regional Trade Integration in Africa, Africa Economic Brief, Volume 2, Issue 11, Africa Development Bank.

Anderson, W., Chijoriga, M. & Philemon, J. 2014. *Promoting trade competitiveness in developing countries*. Cambridge Scholars Publishing.

Andriamananjara, S. 2011. Customs Unions. Chapter 5 of Preferential Trade Agreement Policies for Development: A Handbook, World Bank, Washington D.C.

Ann, J. Norris, E., Duval, R., Hu, B., and Njie, L. 2016. Reassessing the productivity gains from trade liberalization. International Monetary Fund Working Paper 16/77, Washington D.C.

Armington, P.S. (1969). A Theory of Demand for Products Distinguished by Place and Production, IMF Staff Papers, 159 -178.

Asian Development Bank Institute, (2011). Asia's Free Trade Agreements: How is Business Responding? Philippines.

Assarson, J. 2005. The Impacts of the European Union-South Africa Free Trade Agreement. D-Level Thesis. Uppsala University

Bacchetta, M. & Beverelli, C. 2012. Non-Tariff Measures and the WTO. VOX-EU.

Bachrach, C. and Mizrahi, L. 1992. The Economic Impact of a Free Trade Agreement between the United States and Mexico: A CGE Analysis, In: Economy-Wide Modelling of the Economic Implications of a FTA with Mexico and a NAFTA with Mexico and Canada, Publication No. 2508. U.S. *International Trade Commission*. Washington, D.C.

Baldwin, R. & Robert-Nicoud, F. 2014. Trade-in-goods and trade-in-tasks: An integrating framework. *Journal of International Economics*, **92**: 51-62.

Balassa, B. (1975). Trade Creation and Diversion in the European Common Market: An Appraisal of the Evidence, In: European Economic Integration, Amsterdam: North-Holland.

Bastiaens, I. & Rudra, N. 2016. Trade liberalisation and the challenges of revenue mobilization: can international financial institutions make a difference. Review Of the International Political Economy, Vol 23 Issue 2.

Bedia, F. 2006. Poverty Inequality and Welfare Effects of Trade Liberalisation in Cote D'Ivoire: A Computable General Equilibrium Model Analysis. African Economic Consortium Research Paper No 160.

Belloc, M. and Di Maio, M. (2011). Survey of the literature on successful strategies and practices for export promotion by developing countries, *International Growth Centre*.

Berger, A. 2008. China's new bilateral Investment and treaty programme: Substance, rational and implications for international investment law making. the American Society of International Law International Economic Law Interest Group, Washington, D.C

Bertola, G. and Faini, R. 1991. Import Demand and Non-tariff Barriers: The Impact of Trade Liberalisation, *Journal of Development Economics*, Vol. 34, No. 1 - 2, 269 - 86.

Bhagwati, J. and Panagariya, A. (1996). The Theory of Preferential Trade Agreements: Historical Evolution and Current Trends, *American Economic Association*, 82 – 87

Bilal, S., Dalleau, M. and Lui, M. 2012. Trade Liberalisation and Fiscal Adjustments: The Case of EPAs in Africa, European Centre for Development Policy Management, Discussion Paper 137.

Bonga, W. G. (2014). Customs Administration, Laws, and Procedures in Zimbabwe. *Laws and Procedures in Zimbabwe*).

Boughzala, M. 2010. The Tunisia European Union Free Trade Area Fourteen Years On. [Online]. Available. [http: http://www.iemed.org/anuari/2010/aarticles/Boughazala_Tunisia_EU_en.pdf](http://www.iemed.org/anuari/2010/aarticles/Boughazala_Tunisia_EU_en.pdf). [Accessed: 04 April 2016]

Boyer, I. and Schuschny, A. 2008. Quantitative assessment of a free trade agreement between MERCOSUR and the European Union, Santiago, Chile

Brenton, P., Hoppe, M. and Uexkull, v. E. (2007). Evaluating the Revenue Effects of Trade Policy Options for COMESA Countries: the Impacts of a Customs Union and an EPA with the European Union, World Bank, Washington DC.

Brenton, P., Saborowski, C., Staritz, C and Uexkull, v. E. 2009. Assessing the Adjustment Implications of Trade Policy Changes Using TRIST (Tariff Reform Impact Simulation Tool), World Bank, Washington, DC, USA

Brown, D.K., Deardorff, A.V. and Stem, R.M. (1992). A North American Free Trade Agreement: Analytical Issues and a Computational Assessment, *The World Economy*, 15 (1): 15-29.

Brühlhart, M. 2011. The spatial effects of trade openness: A survey. *Review of World Economics*, **147**(1): 59-83.

Busse, M., Borrmann, A., and Großmann. H. 2004. The Impact of ACP/EU Economic Partnership Agreements on ECOWAS countries: an empirical analysis of the trade and budget effects. HWWA, Hamburg Institute of International Economics, Hamburg, Germany.

Cai, S., Zhang, Y. & Meng. 2015. Spillover Effects on TTIP on Brics Economies: A dynamic GVC-Based CGE Model. Institute of Developing Economies Discussion Papers No 485.

Caliendo, L. & F, Parro. 2015. Estimates of the Trade and Welfare Effects of NAFTA, *Review of Economic Studies* 82 (1): 1-44.

Castro, L., Kraus., C. and Rocha, M. (2004), Regional Trade Integration in East Africa, *Africa Regional Working Paper No. 72*, World Bank, Washington DC.

Centre For European Reform, 2016. Brexit and the Economics of Populism. [Online]. Available: https://www.cer.org.uk/sites/default/files/ditchley_2016_report_12dec16.pd. [Accessed 20 April 2017]

Cernat, L. 2003. Assessing South-South Regional Integration: Same Issues, Many Metrics, UNCTAD Paper, Policy Issues in International Trade and Commodities Study Series No. 21.

Choudhry, S., Kalumnal, M. & Varma, S .2013. Trade creation and trade diversion in the India Sri-Lanka Free Trade Agreement-A sector specific analysis. Indian institute of foreign trade working paper No.11.

- Chumacero, R., Fuentes, R., and Schmidt-Hebbel, K. 2004. Chile's Free Trade Agreement: How Big Is the Deal? Central Bank of Chile Working Papers No 264
- Corcos, G., M. del Gatto, G. Mion, and G. Ottaviano. (2012). Productivity and Firm Selection: Quantifying the New Gains from Trade, *Economic Journal*, 122, 754-798.
- Coulibaly, S. 2009. Evaluating the Trade Effect of Developing RTAs: A Semi-parametric Approach, *Journal of Economic Integration*, 24(4): 709-743
- Crawford, J. & Fiorentino, R. 2005. The Changing Landscape of Regional Trade Agreements. World Trade Organization Geneva, Switzerland Discussion Paper No 8.
- Crawford., L. Mitchell, I. and Anderson, M. 2017. Beyond Brexit: How Britain Can Have the Best Trade Policy for Development. CGD Policy Paper. Washington, DC: Center for Global Development. [Online]. Available: <http://www.cgdev.org/publication/beyond-brexit-britain-global-leader-trade>. [Access 10 April 2017]
- Dabla-Norris., G. Ho, K. Kochhar, A. Kyobe, and R. Tchaidze. 2013. Anchoring Growth: The Importance of Productivity-Enhancing Reforms in Emerging Market and Developing Economies. IMF Staff Discussion Note 13/08, International Monetary Fund, Washington.
- Dean, J.M., Desai, S. and Riedel, J. 1994. Trade policy reform in developing countries since 1985: a review of the evidence, World Bank Discussion Paper 267, World Bank, Washington, DC.
- Deardorff, A.V. 2014. Welfare economics. *Deardorffs' Glossary of International Economics*, [Online]. [Accessed 20 December 2015].
- De Gucht, K. 2010. A Partnership of Equals. Speech at the 20th Session of the ACPEU Joint Parliamentary Assembly, Kinshasa
- De Melo, J. & Tsikata, Y. 2015. Regional integration in Africa: Challenges and prospects.

DeRosa, D., Obwona, M. and Roningen, V. 2003. The New EAC Customs Union: Implications for Trade, Industry Competitiveness, and economic Welfare in East Africa. USAID, Washington D.C.

De Sousa, J., Mayer, T. and Zignago, S. 2012. Market access in global and regional trade. *Regional Science and Urban Economics*, **42**(6): 1037-1052.

Dinh, H. T., Palmade, V. Chandra, V. and Cossar, F. 2012. Light manufacturing in Africa: Targeted policies to enhance private investments and create jobs. Washington, DC: The World Bank.

Diop, I. 2015. Assessment of the Impact of WAEMU Common External Tariff (CET) in Senegal. *Modern Economy*, **6**, 1219-1234.

Disenyana, T. 2009. Towards an EAC, COMESA and SADC Free Trade Area. South African Institute of International Affairs.

Dukec, Z., Kusic, S. and Radic. D. (2003). Cost-benefit analysis of integration of Croatia into the European Union, *Ekonomski*. [Online]. Available:[http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=40200]. [Accessed 02 March 2016]

Duncan, R. and Quang, D. 2003. Trade Liberalisation, Economic Growth and Poverty Reduction Strategies, National Centre for Development Studies, Australian National University.

EAC. (2004). Implications and Benefits of the EAC Customs Union, East African Community.

Economy of a North American Free Trade Agreement. [Online]. Available: https://minneapolisfed.org/research/conferences/research-events---conferences-and-programs/~media/files/research/events/1991_03-01/Sobarzo_Mexico.pdf. [Accessed 15 April 2016]

Economicwatch. 2010. Trade Policy. [Online]. Available: <http://www.economywatch.com/international-trade/trade-policy.html> [Accessed 01 february 2016]

ECOWAS. 1975. Treaty of the Economic Community of West African States

Egoume, P. and Nayo, A. 2011. Feeling The Elephant's Weight: The Impact of Côte d'Ivoire's Crisis on WAEMU Trade. IMF Working Paper No 11/80, Washington, DC

Eicher, T.S., Henn, C. & Papageorgiou, C. 2012. Trade creation and diversion revisited: Accounting for model uncertainty and natural trading partner effects. *Journal of Applied Econometrics*, **27**(2):.296-321.

Elebehri, A. and Hertel, T. 2004. A comparative analysis of the EU-Morocco FTA vs Multilateral liberalization. GTAP Working Paper No 30, Washington, DC

European Central Bank. 2016. Understanding the weakness in global trade. What is the new normal? ECB Occasional Paper Series No 178

European Commission. 2016. ACP – The Cotonou Agreement. [Online]. Available: https://ec.europa.eu/europeaid/regions/african-caribbean-and-pacific-acp-region/cotonou-agreement_en. [Accessed 01 June 2016]

European Commission. 2014. The economic impact of the West Africa- EU Economic Partnership Agreement. [Online]. Available: http://trade.ec.europa.eu/doclib/docs/2016/april/tradoc_154422.pdf. [Accessed 01 June 2016]

European Commission Directorate General for Trade. 2016. The Economic Impact of The West Africa-EU Economic Partnership Agreement. [Online]. Available: <https://www.tralac.org/news/article/9814-the-economic-impact-of-the-west-africa-eu-economic-partnership-agreement.html>. [Accessed 20 November 2016]

European Commission Directorate General for Trade. 2010. EU-ACP Economic Partnership Agreements: State of Play at June 2010

Economic Commission for Africa. 2012. Assessing Regional Integration For Africa v. Towards an African Continental Free Trade Area. United Nations Economic Commission for Africa, Addis Ababa.

Essoh, N. 2014. Cote d'Ivoire's commodity export and shipping: Challenges for Port Traffic and Regional Market Size. *American Journal of Industrial and Business management*, Vol 4. 234-24

Evenett, S. 2009. What Can Be Learned from Crisis-era Protectionism? An Initial Assessment. [Online]. Available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1507491.

Farole, T. 2010a. Second Best? Investment Climate and Performance in Africa's Special Economic Zones. *World Bank Policy Research Working Paper*, 5447.

Fell, A. 2007. Trade Liberalization and Environmental Justice in the Ivorian Cocoa Industry. [Online]. Available: http://www.digitalcommons.iwu.edu/intstu_honproj/5 [Access 05 January 2016]

Fontagne, L., Mitaritonna, C., and Laborde, D. 2008. An impact of the EU-ACP Economic Partnership Agreements (EPAs) in the six ACP regions. [Online]. Available: http://trade.ec.europa.eu/doclib/docs/2008/march/tradoc_138081.pdf. [Accessed 09 April 2016]

Foster, V. and Pushak, N. 2010. Africa's Infrastructure: A Time for Transformation. [Online]. Available: http://siteresources.worldbank.org/INTAFRICA/Resources/CDI_country_report_2011.01.pdf. [Accessed 15 October 2016]

Francois, J. and Pindyuk, O. 2013. Modelling the Effects of Free Trade Agreements between the EU and Canada, USA and Moldova/Georgia/Armenia on the Austrian Economy: Model

Simulations for Trade Policy Analysis, FIW-Research Reports 2012/13 N° 03, Research Centre International Economics (FIW).

Francois, J., Manchin, M., Norberg, H., Pindyuk, O., and Tomberger, P. 2013. Reducing Transatlantic Barriers to Trade and Investment – An Economic Assessment in CEPR, Study for the European Commission, Final Project Report

Fukao, K. and Okubo, T. 2002. An Econometric Analysis of Trade Diversion under NAFTA. *North American Journal of Economics and Finance* 14: 3-24

Fukunaga, Y. and Isono, I. 2013. Taking ASEAN+1 FTAs towards the RCEP: A Mapping Study, ERIA Discussion Paper Series, *Economic Research Institute for ASEAN and East Asia*

Gasiorek, M., Smith, A. and Venables, A.J. (1992). Trade and Welfare: A General Equilibrium Model". In: *Trade Flows and Trade Policy After*, Cambridge University Press, UK.

Gauto, V.F. 2012. An econometric analysis of trade creation and trade diversion in Mercosur: the Case of Paraguay. In: *International Association of Agricultural Economists Triennial Conference*.

Ghani, G. 2011. The Impact of Trade Liberalisation on the Economic Performance of OIC Member Countries. *Journal of Economic Cooperation and Development*, 32, 1, 1-18

Githanga, B. 2015. Trade liberalization and economic growth in Kenya: An empirical investigation 1975-2013.

Gonzalez, A. 2013. LLDCs and International Trade and Trade Facilitation, (WTO Publications, Geneva, Switzerland).

Goretti, M. and Weisfeld, H. 2008. Trade in the WAEMU: Development and Reform Opportunities, *International Monetary Fund Working Paper*, WP/08/68

Gourdon., J. Monjon, S. and Poncet, S. 2015. Trade Policy and Industrial Policy in China: What motivates public authorities to apply restrictions on exports? CEPII Working Paper, pp 11-12, [Online]. Available: www.cepii.fr/PDF_PUB/wp/2015/wp2015-05.pdf. [Accessed 20 November 2016]

Greenaway, D. and D. Sapsford. 1994. What Does Liberalisation do for Exports and Growth, *Review of World Economics (Weltwirtschaftliches Archiv)* 130 (1) pp. 152 – 174.

Haarland, J. and Norman, V. (1992). Global Production Effects of European Integration, In: *Trade Flows and Trade Policy after 1992, Cambridge University Press, UK.*

Hallaert, J. 2007. Can Regional Integration Accelerate Development in Africa? CGE Model Simulations of the Impact the SADC FTA on the Republic of Madagascar, International Monetary Fund Working Paper, WP/07/66.

Halpern, L. Miklós., K., and Szeidl, A. 2015. Imported Inputs and Productivity. *American Economic Review*, 105 (12): 3660-3703.

Hamilton, A. 2009. Discussing Existing TRIST Tools for Twelve Developing Countries: Bolivia, Burundi, Ethiopia, Jordan, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Seychelles, Tanzania and Zambia, World Bank.

Handley, K. 2014. Exporting under trade policy uncertainty: theory and evidence. *Journal of international Economics*, **94**(1): 50-66.

Hannan, S. 2016. The Impact of Trade Agreements: New Approach, New Insights. IMF Working Paper, WP/16/117

Harsch, E. 2003. Ivorian wars send regional shockwaves. Transport Routes, trade and migrant labour flows severely disrupted. *Africa Recovery*, Vol. 17 No 2.

Harrison, Ann 1990. Productivity, Imperfect Competition and Trade Liberalisation in Cote d'Ivoire. Policy Research and External Affairs, WPS 451

Hayakawa., H. Ito, T. and Kimura, F. 2015. Trade Creation Effects of Regional Trade Agreements: Tariff Reduction versus Non-Tariff Barrier Removal. Review of Development Economics, Vol 20, Issue 1, pp 317-326

Helpman, E. & Itskhoki, O. 2014. Firms, Trade and Labor Market Dynamics. unpublished manuscript, Princeton University.

Hess, S. and Von Cramon-Taubadel. (2007). Meta-analysis of general and partial equilibrium simulations of Doha Round outcomes” Agricultural Economics Volume 37 Issue s1, Pages 281 – 286

Hindriks, J., Myles, G.D. 2013. *Intermediate public economics*. 2nd Edition. Cambridge, MA: MIT Press.

Hornbeck, J. 2012. The Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR): Developments in Trade and Investment. [Online]. Available: <https://www.fas.org/sgp/crs/row/R42468.pdf>. [Accessed 09 April 2016]

Hozouri, N. 2017. The effect of trade liberalisation on Economic Growth: Selected MENA Countries. International Journal of Economics and Finance; Vol. 9, No. 1

ICO. (2002). An Information on the effects of Liberalization on Ivory Coast's Cocoa Market. [Online]. Available: <http://www.icco.org/questions/Ivory.htm>. [Accessed 02 September 2015]

ICTSD. 2012. West Africa's new common external tariff and the individual WTO commitments of ECOWAS member states: No insurmountable incompatibilities. [Online]. Available: <http://www.ictsd.org/bridges-news/bridges-africa/news/west-africa%E2%80%99s-new-common-external-tariff-and-the-individual-wto> [Accessed 02 January 2016]

ICTSD. 2014. Cote d'Ivoire's EPA: Between a rock and a hard place. [Online]. Available: <http://www.ictsd.org/bridges-news/bridges-africa/news/c%C3%B4te-d%E2%80%99ivoire%E2%80%99s-epa-between-a-rock-and-a-hard-place> [Accessed 02 February 2016]

ILO. 2001. Trade and Employment, ILO Publications.

IMF. 2005. Review of the IMF's trade restrictiveness index, Background paper to the Review of Fund Work on Trade. Washington, DC.

IMF. 2013. The IMF's Trade Integration Mechanism (TIM), International Fund Publication Services, Washington D.C.

IMF. 2014. IMF Country Report no 14/84. West Africa Economic and Monetary Union.

IMF. 2015. *IMF World Economic Outlook*. June 2015. Washington DC: International Monetary Fund.

IMF. 2016. IMF Country Report no 16/388. Cote d'Ivoire Economic Development Documents.

IMF. 2016. IMF Country Report no 16/147. Cote d'Ivoire 2016 article IV Consultation.

ITC. 2012. Cote d'Ivoire: Domestic and Foreign Market Access. [Online]. Available: <http://www.intracen.org/ivory-coast/Domestic-and-Foreign-Market-Access/> [Accessed 02 January 2016]

ITC. 2014. Targeting Non-tariff Measure in Cote d'Ivoire. [Online]. Available: <http://www.intracen.org/news/Targeting-non-tariff-measures-in-Cote-dIvoire/> [Accessed 01 February 2016]

ITC. 2016. International Trade Statistics. [Online]. Available: http://www.trademap.org/tradestat/Bilateral_TS.aspx?nvpm. [Accessed 02 June 2016]

Jenkins, R. 1996. Trade Performance and Export Performance in Bolivia, Development and Change, Vol. 27, 693-16.

Jidoud, A. 2012. The sources of Macroeconomic Fluctuations in Sub-Saharan African Economies: An Application on Cote d'Ivoire. Toulouse School of Economics. [Online]. Available: <http://www.tse-fr.eu/sites/default/files/medias/doc/wp/macro/subsaharan.pdf>. [Accessed 28 january 2016]

Jong, L. and Ju, H. 2009. Does Trade integration contribute to peace. Asian Development Bank. Working Papers No 24.

Ju, J., Wu, Y. and Zeng, L. 2009. The Impact of Trade Liberalisation on the Trade Balance in Developing Countries, IMF Staff Papers, Washington DC.

Kaluwa, B. M. and Kambewa, P. S. (2009). Common External Tariffs from the Perspective of Small, Regionally Dominated Economies with Dual Membership: The Case of Malawi in COMESA and SADC, *African Integration Review* Vol. 3, No. 1

Kang, K. 2010. Overseas Network of Export Promotion Agency and Export Performance: the Korean Case, *Contemporary Economic Policy*, forthcoming.

Kareem, O. 2015. The Welfare impact in Nigeria of the ECOWAS Common External Tariff: A distributional effects Analysis. [Online]. Available: http://unctad.org/en/PublicationChapters/gds2014d3_08_Nigeria_en.pdf. Accessed [04 April 2016]

Karingi, S., Lang, R., Oulmane, N., Perez, M., Sadni- Jallab, M and Hammouda, B.H. 2005. The EU-SADC Economic Partnership Agreement: A Regional Perspective, African Trade Policy Centre, African Trade Policy Centre Economic Commission for Africa.

Karingi, S., Oulmane, N., Sadni- Jallab, M, Lang, R., and Perez, M. 2006. Assessment of the Impact of the Economic Partnership Agreement between the COMESA countries and the

European Union Work in Progress No. 37, African Trade Policy Centre, Economic Commission for Africa

Kayizzi-Mugerwa, S., Anyanwu, J.C. & Conceição, P. 2014. Regional Integration in Africa: An Introduction. *African Development Review*, **26**(S1): 1-6.

Keck, A. and Piermartini, R. 2005. The economic impact of EPAs in SADC countries, WTO Staff Working Paper ERSD-2005-04. World Trade Organization, Geneva.

Keen, M. and M. Mansour. 2009. Revenue Mobilization in Sub-Saharan Africa: Challenges from Globalization. IMF Working Paper WP/09/157, Washington, D.C.: International Monetary Fund.

Kehoe, T. 1993. North American Free Trade. *Journal of Economic Integration* 8 (2): 119-151

Kemp, M., and Wan, H.Y. 1976. An Elementary Proposition Concerning the Formation of Customs Unions, *Journal of International Economics* 6 (1): 95-97.

Khan, A. 2012. The Impact of Trade Liberalization on Economic Growth in Pakistan. *Interdisciplinary Journal of Contemporary Research In Business*. Institute of Interdisciplinary Business Research 3(2)

Khan, A., Pallot, R. Taylor, D. & Kanavos. 2015. The transatlantic trade and investment partnership: International trade law, health system and public health system. [Online]. Available: http://www.apha.org/IMG/pdf/LSE_study-TTIP_International_Trade_Law_Health_Systems_and_Public_Health_website.pdf [Accessed 02 September 2015]

Khorana, S., Kimbugwe, K. and Perdakis, N. 2008. The impact of tariff reductions under the East African Community Customs Union: Intra-trade effects on Uganda, Aberystwyth University

Khorana. S, Kimbugwe, K. and Perdikis, N. (2009). Assessing the Welfare Effects of the East African Community Customs Union's Transition Arrangements on Uganda, Aberystwyth University.

Khorana. S. and Perdikis, N. 2010. EU-India Free Trade Agreement: Deal or no Deal. *South Asia Economic Journal* Vol 11, No 2: 181-206

Kingston, C., Godspower, I. Dienne, V. & Kingston, K. 2011. The Impact of the World Bank and The IMF Structural Adjustment Programmes On Africa: The Case Study of Cote D'Ivoire, Senegal, Uganda, and Zimbabwe. *Sacha Journal of Policy and Strategic Strategy*, 1 (2): 110-130

Kireyev, A. 2010. Export taxes and Pricing Power: Two hypotheses on the Cocoa Market in Cote d'Ivoire. *African Department Working paper No 10/269*, International Monetary Fund, Washington DC

Korinek, J. and Melatos, M. 2009. Trade Impacts of Selected Regional Trade Agreements in Agriculture. *OECD Trade Policy Working Papers*, No. 87, OECD Publishing

Krueger, A.O. 1999. Trade Creation and Trade Diversion under NAFTA. *NBER Working Paper No. 7429*, National Bureau of Economic Research, Cambridge.

Kumar, S. and Ahmed, S. 2014. Impact of Sensitive Lists under SAFTA: Quantitative Assessment using a Partial Equilibrium Modelling. *European Journal of Globalization and Development Research*, Vol. 10, No. 1,

Kwok, T. 2013. The gains from external scale economies and comparative advantage. Working Papers 33867662, Lancaster University Management School, Economics Department.

Lang, R. (2006). A partial-equilibrium analysis of the impact of the ECOWAS-EU Economic Partnership Agreement, United Nations Economic Commission for Africa.

Laery, N. (2010). Political and Economic Considerations of Free Trade Agreements: New Zealand and AANZFTA: What Exactly Are Free Trade Agreements (FTAs) and What Are Their Political and Economic Attractions and Liabilities From the New Zealand Government's Point of View? University of Auckland

Laird, S. and Yeats, A. (1986). The UNCTAD Trade Policy Simulation Model, a Note on Methodology, Data and Uses, UNCTAD Discussion Paper 19, UNCTAD.

Lee, E. (2005). Trade Liberalisation and Employment, United Nations.

Lee, S. (2013). The Effect of Free Trade Agreement (FTA) on Small Open Economics: Implications for the Korea - US (KORUS) FTA, Department of Economics, University of Minnesota-Duluth

Lewis, J.D., Robinson, R. and Thierfelder, K. 1999. After the Negotiations: Assessing the Impact of Free Trade Agreements in Southern Africa, TMD Discussion Paper. International Food Policy Research Institute. Washington, D.C.

Lewis, J.D., Robinson, S. and Thierfelder, K. 2001. Free Trade Agreements and the SADC Economies, Discussion Paper No. 80, World Bank.

Lui, D. and Bilal, S. 2009. Contentious issues in the interim EPAs Potential flexibility in the negotiations, ECDPM Discussion Paper 89, Maastricht

Makochehanwa, A. 2012. COMESA-EAC-SADC tripartite free trade area: Implications on welfare and food security, USAID, Gaborone.

Mano-Bakalinov, V. 2016. Trade Liberalisation and Economic Growth in Macedonia. South East European Journal of Economics and Business. Volume 11 (2), 48-60

- Manni, U. & Afzal, I. 2012. Effect of Trade Liberalization on Economic Growth of Developing Countries: A Case of Bangladesh Economy. *Journal of Business, Economics and Finance* Universiti Brunei Darussalam: Brunei. 1(2).
- Mansfield, E. 1993. Effects of International Politics in Regionalism in International Trade, *Regional Integration and the Global Trading System*, London.
- Mansour, M. & Graziosi, G. 2013. Tax Coordination, Tax Competition, and Revenue Mobilization in the West African Economic and Monetary Union. IMF Working Paper. WP/13/163
- Marshall, A. 1890. Principles of Economics. Macmillan and Co, Ltd, London
- McCulloch, N.A., Winters, L.A. and Cirera, X. 2001. Trade Liberalization and Poverty: A Handbook, Centre for Economic and Policy Research, London.
- McGovern, E. 2015. *International trade regulation (Vol. 2)*. Globefield Press.
- McIntyre, M. 2005. Trade Integration in EAC: An Assessment for Kenya, IMF Working Paper No. 05 (143), Washington, DC.
- McKay, A., Milner, C. and Morrissey, O. (2005), Some simple analytics of the welfare effects of EUACP economic partnership agreements, *Journal of African Economies*, 14 (3): 327–58.
- McLaren, J. 2004. Free Trade Agreement, Custom Union and the Dynamics of Political Influence. [Online]. Available: http://www.people.virginia.edu/~FTAs_CUs_and_the_dynamics_of_political_influence [Accessed 02 January 2016].
- Melnikas, B. 2015. Integration processes in the Baltic region: the new form of regional transformations in the European Union. *Engineering Economics*, 60(5).

Melo, O. and Vogt, M.G. 1984. Determinations of the Demand for Imports of Venezuela, *Journal of Development Economics*, Vol. 14, No. 3, 351 - 8.

Meade, J.E. 1955. *The Theory of Customs Unions*, Amsterdam: North-Holland.

Menyah, K., Nazlioglu, S. & Wolde-Rufael, Y. 2014. Financial development, trade openness and economic growth in African countries: New insights from a panel causality approach. *Economic Modelling*, (37): 386-394.

Meyn, M. 2008. *Economic Partnership Agreement: A historic step towards a partnership of equals*. Overseas Development Institute. 111 Westminster Bridge road London Working Paper No 288

Michalopoulos, C. and Ng, F. 2013. *Trends in Developing Country Trade 1980 – 2010*, World Bank, Washington DC, USA.

Michealy, M., Papageorgiou, D. and A. Cholski. 1991. *Liberalising Foreign Trade, Vol.7: Lessons of Experience in the Developing World*, Oxford: Basil Blackwell.

Milner, L., Morrissey, O. & McKay. 2005. Some simple analytics of the trade and welfare effects of economic partnership agreements. *Journal of African economies*, 14(3):327-358

Milton, S. and Siddique, M. 2014. *Trade Creation and Diversion under the Thailand-Australia Free Trade Agreement*. The University of Western Australia, Working Papers No 14-26

Ministry of Commerce. 2014. *Imports-Exports*, Abidjan, Cote d'Ivoire.

Ministry of Finance. 2015. *Cles de l'économie*, Abidjan, Cote d'Ivoire.

Ministry of Trade and Industry. (2014). Singapore signs bilateral investment treaty with Burkina Faso and Ivory Coast to promote greater investment flows, [Online]. Available: <https://www.mti.gov.sg/NewsRoom/Pages/Singapore-Signs-Bilateral-Investment-Treaty-With->

Burkina-Faso-And-Ivory-Coast-To-Promote-Greater-Investment-Flows.aspx [Accessed 02 February 2016]

Mkenda, B. & Hangi, M. 2009. Revenue implications of EPA on Tanzania. [Online]. Available: http://www.cuts-geneva.org/.../BIEAC-Revenue_implications_of_the_EC-EAC_E [Accessed 06 October 2016].

Morrissey, O. 2011. Assessing prospective trade policy: Methods applied to EU-ACP Economic Partnership. New York: Routledge Studies In Development Economics: 42.

Mugano, G. 2015. SADC trade liberalisation and Zimbabwe Economy: Partial equilibrium simulation study. Journal of Development Studies, Under Review.

Mugano, G. 2015. Trade, revenue and welfare implications of bilateral agreements on Zimbabwe. Journal for Development and Leadership, **4(1)**: 88-103.

Mugano, G., Brookes, M. & Le Roux. 2013. Estimating the impact of a COMESA Customs Union on Zimbabwe Using a Tariff Reform Impact Simulation tool (TRIST). African journal of business management, 4(10): 104-120

Mugano, G., Brookes, M. & Le Roux, P. 2013. The impact of most favoured nation tariff rate on Zimbabwe. International Journal of Physical and Social Sciences, **3(7)**: 231-245.

Mugano, G., Brookes, M. & Le Roux, P. 2013. *The Impact of SADC Customs Union on Zimbabwe*. Southern African Institute for Management Scientists, Conference Proceedings, pp. 997-1012.

Mugano, G. & Le Roux, P. 2014. The impact of COMESA Free Trade Agreement on Zimbabwe. Southern African Institute for Management Scientists, Conference Proceedings, pp. 435-446.

Negasi, M. 2009. Trade Effects of Regional Economic Integration in Africa: The Case of SADC. [Online]. Available:

http://www.tips.org.za/files/13.Trade_effects_of_Regional_Economic_Integration_-_SSD.pdf.
[Accessed 05 April 2016]

Ng, F. and Yeasts, A. 2000. The Recent Trade Performance of Sub-Saharan African Countries: Cause for Hope or More of the Same? World Bank, Washington DC.

Nicita, A., Olarreaga, M. and Porto, G. 2011. Pro-poor trade policy in sub-Saharan Africa. CEPR Discussion Papers 8594.

Nwabugo, N. 2011. The Story of Structural Adjustment Program in Nigeria From The Perspective of The Organized Labour. Australian Journal Of Business and Management Research, 1 (7): 30-41

Ocampo, J.A., Jomo, K.S and Khan, S. (2007). Policy Matters: Economic and Social Policies to Sustain Equitable Development, Palgrave Macmillan, New York, USA.

OECD. 2006. African Economic Outlook: Cote d'Ivoire. [Online]. Available: <http://www.oecd.org/dev/36739479.pdf> [Accessed 28 January 2016]

OECD. 2013. Economic Policy Reforms 2013: Going for Growth. OECD Publishing. [Online]. Available: <http://dx.doi.org/10.1787/growth-2013-en> [Accessed 15 October 2016]

OECD. 2014. Global Value Chains: Challenges, Opportunities and Implications for Policy. [Online]. Available: https://www.oecd.org/tad/gvc_report_g20_july_2014.pdf. [Accessed 20 June 2016]

OECD. 2016. Rising tax revenues are key to economic development in african countries. [Online]. Available: <http://www.oecd.org/tax/rising-tax-revenues-are-key-to-economic-development-in-african-countries.htm> [Accessed 20 October 2016]

Ogbonna, B.C. 2012. Structural Adjustment Programme (SAP) in Nigeria: An Empirical Assessment, Journal of Banking, 6 (1), pp. 19-40.

Ohyama, M. (1972). Trade and Welfare in General Equilibrium, *Keio Economic Studies* 9: 37-73.

Okabe, M. and Urata, S. 2013. The impact of AFTA on Intra-AFTA Trade. [Online]. Available: <http://www.eria.org/ERIA-DP-2013-05.pdf>. [Accessed 09 April 2016]

Okonji, C. 2015. The Implications for CET for Nigerian Products. [Online]. Available: <http://www.bilaterals.org/?the-implications-of-cet-for>. [Accessed 23 May 2016]

Olayinka, I.K. 2014. The Welfare Impact in Nigeria of the Common External Tariff of the Economic Community of West African States: A Distributional Effect Analysis. UNCTAD/GDS/2014/3

Onogwu, G.O. and Arene, C.J. 2013. Adjusting Liberalization due to Trade, Revenue, and Welfare Effects: An Economic Partnership Agreement Scenario between Cape Verde and the EU, Volume 3, Number 1, 87-107, *Journal of Agriculture and Sustainability*.

Onogwu, G.O. and Arene, C.J. 2013. Trade, Revenue And Welfare Effects Under An Economic Partnership Agreement Between Burkina Faso And The European Union, *Russian Journal of Agricultural and Socio-Economic Sciences*, 2(14).

Ossa R. 2014. Trade wars and trade talks with data. *American Economic Review* 104, 4104–4146.

OTEXA, 2012. Market reports, Tariffs, Textiles Apparel, Footwear and Travel Goods. [Online]. Available: <http://web.ita.doc.gov/tacgi/overseasnew.nsf/alldata/Cote%20D'Ivoire> [Accessed 28 January 2016]

Othieno, L. and Shinyekwa, I. 2011. Trade, Revenue and Welfare Effects of the East African Community Customs Union Principle of Asymmetry on Uganda: An Application of Wits-Smart Simulation Model, Economic Policy Research Centre.

Oxfam, 2006. Unequal Partners: How EU–ACP Economic Partnership Agreements (EPAs) could harm the development prospects of many of the world’s poorest countries, Australia.

Pacheco-Lopez, P. (2005). The Impact of Trade Liberalisation on Exports, Imports, the Balance of Payments and Growth: The Case of Mexico, *Journal of Post Keynesian Economics*, 27 (4) pp. 595-619.

Peters, G.H. 1979. *International Trade, Investment, and Payments*. USA. Houghton Mifflin Company.

Piermartini, R. (2004). The Role of Export Taxes in the Field of Primary Commodities, WTO, Geneva.

Plummer, M.G., Cheong, D. and Hamanaka, S. (2010). Methodology for Impact Assessment of Free Trade Agreements, *Asian Development Bank*, Mandaluyong City, Philippines.

Prati, A., M. G. Onorato, and C. Papageorgiou. 2013. Which Reforms Work and under What Institutional Environment? Evidence from a New Data Set on Structural Reforms. *Review of Economics and Statistics*, 95(3), 946–68.

Ratnaik, Y.C. 2012. Is there an empirical relationship between Trade Liberalisation and Export Performance”, *Economic Letters*, 117, pp. 375 – 378.

Restuccia, D., and R. Rogerson. 2013. Misallocation and Productivity, *Review of Economic Dynamics*.” Vol. 16, 1–10.

Roland-Horst, D.W., Reinert, K.A. and Shiells, C.R. 1992. North American Trade Liberalisation and the Role of Non-Tariff Barriers, In: *Economy-Wide Modelling of the Economic Implications of a FTA with Mexico and a NAFTA with Mexico and Canada*, Publication No.2508. U.S, International Trade Commission. Washington, D.C.

Rondinelli, D.A. 2013. Development projects as policy experiments: An adaptive approach to development administration. London/New York: Routledge.

Saana Consulting. 2016. Accelerating Trade in West Africa. [Online]. Available: <http://www.saana.com/about-saana-main/project-micro-sites/accelerating-trade-in-west-africa-atwa/>. [Accessed 04 July 2016]

Salisu, A., S. Olofin, I. Ademuyiwa and J. Owuru. 2012. The Trade Effect of WAEMU in a spatial framework, Paper Presented at the 17th Annual Conference of the African Econometrics Society (AES) on Econometric Analysis and Policy Challenges in Africa, Kampala, Uganda.

Salvatore, D. (2007). International Economics, 9th Edition, *John Wiley & Sons Inc.*, USA.

Samuelson, P. 2004. Where Ricardo and Mill Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization. *Journal of Economic Perspectives*, Vol 18, Number 3, pp. 161–180.

Sangeeta, K., Kato, K and Nicholas, P. (2009). Assessing the Effects of EAC Customs Union's Trade Agreement on Uganda, *Journal of Economic Integration* Vol 24 (4), 685 -708

Santos-Paulinio, A.U. (2002). Trade Liberalisation and Export Performance in Selected Developing Countries, *Journal of Development studies*, 39 (1) pp. 140 – 164.

Santos-Paulinio, A.U. (2007). Aid and Sustainability under Liberalisation in Least Developing Countries. *The World Economy*, 30 (6) pp. 972 – 998.

Schiff, M. and Winters, L. A. (2003). Regional Integration and Development, Washington DC: World Bank and *Oxford University Press*.

Schinyekwa, I. and Katunze, M. 2016. Assessment of the Effect of the EAC Common External Tariff Sensitive Products List on the Performance of Domestic Industries, Welfare, Trade and Revenue. Economic Policy Research Centre. Research Centre No 129, Kampala

Schmieg, E. 2016. Africa's Position in Global Trade Free Trade Agreements, WTO and Regional Integration. [Online]. Available: https://www.swp-berlin.org/fileadmin/.../Africas_Position_in_Global_Trade.pdf. [Accessed 20 November 2016]

Shams, R. 2003. Regional integration in developing countries: Some lessons based on case studies. HWWA Discussion Paper no. 251. Hamburg,

Shumba, W. (2015). Trade facilitation initiatives in SADC. Southern Africa Business Forum, Gabarone.

Sikdar, C. 2011. The Impact of India-Asean Free Trade Agreement: A Cross Country Analysis Using Applied General Equilibrium Modelling. Asia Pacific Research and Trading Network on Trade, Working Paper No. 107

Simiyu, E. 2017. The impact of Trade Liberalisation on Kenya. Unpublished doctoral thesis. Port Elizabeth: Nelson Mandela Metropolitan University

Slootmaekers, V. 2004. Trade Effects of the EU- Mexico FTA. Kiel Institute for World Economics – IFW Germany, Working Paper No. 416 Germany: Hamburg Institute of International Economics

Sobarzo, H. 1991. A General Equilibrium Analysis of the Gains from Trade for the Mexican

Staiger, R. 2015. Non-Tariff Measures and the WTO. Unpublished working paper. Dartmouth College, Hanover.

Tekere, M. (2001). Trade Liberalisation under Economic Structural Adjustment Programme and the Impact on Social Welfare in Zimbabwe, *A Paper for the Poverty Reduction Forum*.

The Economist. 2013. Transport in Africa. [Online]. Available: <http://www.economist.com/news/middle-east-and-africa/21571920-africas-booming-economy-needs-modern-trade-routes-get-move>. [Accessed 20 January 2016]

Thiga, M. & Muturi. W. 2015. Factors that influence the compliance with tax laws among the small and medium sized enterprises. *International Journal of Scientific and Research Publications*, 5(6): June 2015.

Todaro, M. P. & Smith, S.C. 2009. *Economic Development* (10th ed.). United States:Pearson Education Limited

Tuffour, J., Balchin, N., Calabrese, L., and Mendez-Parra, M. 2016. Trade facilitation and economic transformation in Africa. [Online]. Available: <http://set.odi.org/wp-content/uploads/2016/03/SET-ACET-ATF-Trade-Facilitation-Paper.pdf> [Accessed 10 August 2016]

Stein, H. 2012. Africa, industrial policy and export processing zones: Lessons from Asia. In A. Norman (Ed.), *Good growth and governance in Africa: Rethinking development strategies* (pp. 322–344). Oxford:Oxford University Press.

Stern, R., Francis, J. and Bruce, S. (1976). *Price Elasticities in International Trade: An Annotated Bibliography*, London.

Stern, Robert M., Jonathan, F. and Bruce. S. (1982). *Price Elasticities in International Trade: An Annotated Bibliography*, *Journal of Political Economy* Vol. 90, No. 3, pp. 660- 662

Stevens, C. & Kennan, J. 2005. Institute of Development Studies. *EU-ACP Economic Partnership Agreements: the effects of reciprocity*

Sulaiman, La., Migirao, S. and Aluko, O. 2014. The structural adjustment programme in developing countries: Pain or Gain? Evidence from Nigeria. *Public and Municipal finance*, Vol 3, issue 2.

Suranovic, S. 1997. *International Trade Theory and Policy*. [Online]. Available: <http://www.internationalecon.com/trade/Tch110/T110-2A.php> [Accessed 06 January 2015].

Susanto, D., Rosson, P., and Adcock, F. 2007. Trade Creation and Trade Diversion in the North American Free Trade Agreement: The Case of the Agricultural Sector. *Journal of Agricultural and Applied Economics*, 39,1: 121-134

Takarick, S. (2010). A Method for Calculating Export Supply and Import Demand Elasticities, Working Paper No. 180, *International Monetary Fund*, Washington DC.

Sykes, A. and John M.O. 2005. Trade Remedy Laws Law. Economics Working Paper No. 240

Tekere, M. and Ndlela, D. 2003. Impact Assessment of Economic Partnership Agreements on Southern African Development Community and Preliminary Adjustment Scenarios. Final Report, Trade and Development Studies Centre, Harare, Zimbabwe.

The Economist. (2013). Transport in Africa: Get a move on. London: The Economist

Thomas, V., Nash, J. and Edwards, S. (1991), Best Practices in Trade Policy Reform (Oxford, United Kingdom, Oxford University Press for the World Bank).

Topalova, P. and Khandelwal, A. 2011. Trade Liberalization and Firm Productivity: The Case of India. *The Review of Economics and Statistics*, 93 (3): 995-1009.

Tupy, M. 2005. Trade Liberalization and Poverty Reduction in Sub Saharan Africa. [Online]. Available: <http://object.cato.org/sites/cato.org/files/pubs/pdf/pa557.pdf> [Accessed 08 August 2015]

Tussie, D. and Aggio, C. (2005). Economic and social impacts of trade liberalisation, UNCTAD.

UN COMTRADE. (2015). Online database.

UN COMTRADE. (2016). Online database.

UNCTAD. (2005). Trade Liberalisation and Economic Reform in Developing Countries: Structural Change or De-Industrialisation? Discussion Papers, No 179.

UNCTAD. (2008), Export Performance Following Trade Liberalisation: Some Patterns and Policy Perspectives, UNCTAD Publishing.

UNCTAD. 2012. Trade, Income Distribution And Poverty In Developing Countries: a survey. [Online]. Available: http://unctad.org/en/PublicationsLibrary/osgdp20121_en.pdf. [Accessed 20 January 2015]

UNCTAD. 2013. UNCTAD TRAINS database. [Online].

UNCTAD. 2014. UNCTAD TRAINS database. [Online].

UNCTAD. 2015. Key Statistics and Trends in International Trade. The trade slowdown. [Online]. Available: http://unctad.org/en/PublicationsLibrary/ditctab2015d1_en.pdf. [Accessed 06 August 2015].

United States International Trade Commission. 2017. Trans-Pacific Partnership Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors. [Online]. Available: <https://www.usitc.gov/publications/332/pub4607.pdf>. [Accessed 20 April 2017]

Urata, S & OKABE. M. 2010. Trade Creation and Diversion Effects of Regional Trade Agreements on Commodity Trade, Discussion papers 10007, Research Institute of Economy, Trade and Industry (RIETI).

Veeramani, C. 2012. Anatomy of India's Merchandise Export Growth, 1993-94 to 2010-11. *Economic and Political Weekly*, 47(1): 94-104.

Veeramani, C. and Saini, G.K. (2010). Impact of ASEAN-India FTA on India's Plantation Commodities: A Simulation Analysis, Indira Gandhi Institute of Development Research, Mumbai, India

Verdoorn, P.J. (1960). The Intra-Bloc Trade of Benelux, Economic Consequences of the Size of Nations, E.A.G. Robinson (ed). London: *Macmillan*.

Villa, C., Gomez, D. & Omar.2012. The Colombia-Canada Free Trade Area. [Online]. Available: http://www.vi.unctad.org/digital-library/?task=dl_doc&doc_name=787colombia [Accessed 06 October 2016].

Viner, J. (1950). The Custom Union Issue, Carnegie Endowment for International Peace, New York, USA.

Viner, J. 2014. *The customs union issue*. Oxford: Oxford University Press.

Vizjak, A. (2001). Impact of Croatian EU accession on its foreign trade and customs system. [Online]. Available: <http://hrcak.srce.hr/28762>. [Accessed 02 March 2016]

Waglé, S. 2011. Co-ordinating Tax Reforms in the Poorest Countries Can Lost Tariffs be Recouped? Policy Research Working Paper 5919, World Bank.

West African Economic and Monetary Union. 2017. Countries members. [Online]. Available. <http://www.uemoa.int/>. [Accessed 13 October 2017]

West African Economic Monetary Union Commission. 2014. Tariffs. Ouagadougou, Burkina Faso

Willenbockel, D. 2013. General Equilibrium Assessment of the COMESA-EAC-SADC TFTA FTA. [Online]. Available. <http://mpira.ub.uni-muenchen.de/51501/>. [Accessed 10 April 2016]

World Bank. 2000. Trade Blocs. World Bank Policy Research Report, Washington D.C: *Oxford University Press*.

World Bank. 2014. Trade Blocs. World Bank Policy Research Report. Washington D.C: Oxford University Press.

World Bank. 2015. Deepening African Integration: Intra-Africa Trade for Development and Poverty Reduction. [Online]. Available: <http://www.worldbank.org/en/news/speech/2015/12/14/deepening-african-integration-intra-africa-trade-for-development-and-poverty-reduction> [20 January 2016]

World Bank. 2015. Assessing the Economic Impact of the ECOWAS CET and Economic Partnership Agreement on Ghana. [Online]. Available: <http://documents.worldbank.org/curated/en/2015/11/25465332/assessing-economic-impact-ecowas-cet-economic-partnership-agreement-ghana>. [Accessed 04 April 2016]

World Cocoa Foundation. 2014. Cocoa Market Update. [Online]. Available: www.worldcocoafoundation.org/wp.../Cocoa-Market-Update-as-of-4-1-2014.pd. [Accessed 10 April 2017]

World Economic Outlook. 2013. Commodity Market Review. [Online]. Available: <https://www.imf.org/external/np/res/commod/pdf/cmr/cmr1013.pdf>. [Accessed 20 May 2016]

World Economic Outlook. 2017. The global Economy in Trump Era. [Online]. Available: <https://economics.rabobank.com/publications/2016/november/global-economy-trump-era/>, [Accessed 08 April 2017]

WTO, 1995. Trade Policies Review. [Online]. Available: https://www.wto.org/english/tratop_e/tpr_e/tp8_e.htm [Accessed 26 January 2016]

WTO. 2010. Doha Development Agenda: WTO Publications, Geneva, Switzerland.

WTO. 2011. World Trade Report 2011 The WTO and preferential trade agreements: From co-existence to coherence, WTO Publications, Geneva, Switzerland.

WTO. 2012. US Statement on The Trade Policy Review of Cote d'Ivoire, Guinee Bissau and Togo. WTO Trade Policy Review of Cote d'Ivoire. [Online]. Available: <https://geneva.usmission.gov/2012/07/03/u-s-statement-on-thetrade-policy-review-of-cote-divoire-guinea-bissau-and-togo/> [Accessed 02 January 2016]

WTO. 2013. Committee on imports licensing, WTO Publications, Geneva, Switzerland

WTO. 2014. Recommendations of the task force on aid for trade. [Online]. Available: www.oecd.org/trade/aft/45581702.pdf. [Accessed 02 January 2016].

WTO. 2014. Trade Facilitation Agreement. [Online]. Available: https://www.wto.org/english/thewto_e/20y_e/wto_tradefacilitation_e.pdf [Accessed 02 January 2016]

WTO. 2014. Understanding the WTO: The agreements: Anti-dumping, subsidies, safeguards, contingencies. Geneva, Switzerland: WTO.

WTO. 2015. Understanding the WTO. [Online]. Available: https://www.wto.org/english/thewto_e/whatis_e/what_we_do_e.htm. [Accessed 15 August 2015]

WWTS. 2015. Ivory Coast-Corporate-Other Taxes. [Online]. Available: <http://taxsummaries.pwc.com/uk/taxsummaries/wwts.nsf/ID/Ivory-Coast-Corporate-Other-taxes>. [Accessed 01 February 2016]

WTO. 2016. Legal texts: the WTO agreements. [Online]. Available: https://www.wto.org/english/docs_e/legal_e/ursum_e.htm#iAgreement. [Accessed 20 May 2016]

Yabi, G. 2010. The role of ECOWAS in Managing Political Crisis and Conflict: The cases of Guinea and Guinea-Bissau. [Online]. Available: <http://library.fes.de/pdf-files/bueros/nigeria/07448.pdf> [Accessed 02 January 2016]

Yang, S. and Martinez-Zarzoso, I. 2014. A Panel Data Analysis of Trade Creation and Trade Diversion Effects: The Case of ASEAN-China Free Trade Area, China Economic Review, Vol. 29, pp. 138-151

Yaoxing, Y. and N'guessan. B. 2010. The Relationship between Foreign Direct Investment, Trade Openness and Growth in Cote d'Ivoire. *International Journal of Business and Management*, Vol 5 No. 7

Zafar, A. 2005. Revenue and the Fiscal Impact of Trade Liberalisation: The Case of Niger, World Bank Policy Research Working Paper 3500, Washington DC, USA.

Zake, J. 2011. Customs Administration Reform and Modernization in Anglophone Africa– Early 1990s to Mid-2010. IMF Working Paper WP/11/184. Washington, DC: International Monetary Fund.

Zeng, Douglas Zhihua. 2015. Global Experiences with Special Economic Zones, World Bank Policy Research Working Paper 7240.

Zepeda, E., Wise, T.A. and Gallagher, K.P. (2009). Rethinking Trade Policy for Development: Lessons From Mexico Under NAFTA, Policy Outlook, Carnegie Endowment for International Peace.

Zgovu, E.K. and Kweka, J.P. 2009. Empirical Analysis of Tariff Line-Level Trade, Tariff Revenue and Welfare Effects of Reciprocity under an Economic Partnership Agreement with the EU: Evidence from Malawi and Tanzania, Conference Paper.

Zgovu, E.K. and Milner, C. 2007. Implications of WTO multilateral liberalisation of non-agricultural products and economic partnership agreement with the European Union for East African Community countries, Centre for Research in Economic Development and International Trade (CREDIT), United Kingdom.

Appendix 1 (a): Robustness and Sensitivity Analysis of ECOWAS CET on Trade Creation (US\$ Million)

Product Category	Base Case	Lower Bound	Upper Bound	Worst Case
Capital Goods	0	0	0	0
Raw Materials	988	988	988	988
Intermediate Goods	504	504	504	11.045
Finished Goods	0	0	0	0
Total	1492	1492	1492	1492
% Change from Base	-	-	-	-

Source: Author's Own Calculations Based on SMART Simulations

Appendix 1 (b): Robustness and Sensitivity Analysis of ECOWAS CET on Revenue (US\$ Million)

Product Category	Base Case	Lower Bound	Upper Bound	Worst Case
Capital Goods	0	0	0	0
Raw Materials	-247.11	-0.425	-247.12	-247.13
Intermediate Goods	-39.74	0	0	-40
Finished Goods	0	0	0	0
Total	-286.85	-0.425	-247.12	-247.12
% Change from Base	-	99.85	13.85	13.85

Source: Author's Own Calculations Based on SMART Simulations

Appendix 1 (c): Robustness and Sensitivity Analysis of ECOWAS CET on Welfare (US\$ Million)

Product Category	Base Case	Lower Bound	Upper Bound	Worst Case
Capital Goods	0	0	0	0
Raw Materials	49.2	49.2	49.2	49.2
Intermediate Goods	37.03	33.2	33.2	33.2
Finished Goods	0	0	0	0
Total	86.23	82.4	82.4	82.4
% Change from Base	-	-4.44	-4.44	-4.44

Source: Author's Own Calculations Based on SMART Simulations

Appendix 2 (a): Robustness and Sensitivity Analysis of WAEMU CET on Trade Creation (US\$ Million)

Product Category	Base Case	Lower Bound	Upper Bound	Worst Case
Raw Materials	1793	1793	1793	1793
Intermediate Goods	1043	1043	1043	1043
Finished Goods	0	0	0	0
Total	2836	2836	2836	2836

Source: Author's Own Calculations Based on SMART Simulations

Appendix 2 (b): Robustness and Sensitivity Analysis of WAEMU CET on Revenue (US\$ Million)

Product Category	Base Case	Lower Bound	Upper Bound	Worst Case
Raw Materials	-250	-250.83	-250.63	-250.02
Intermediate Goods	-42.66	-42.65	-42.66	-42.70
Finished Goods	-0	-0	-0	-0
Total	-292.66	-293.48	-293.29	-292.72
% Change from Base	-	0.28	0.21	0.02

Source: Author's Own Calculations Based on SMART Simulations

Appendix 2 (c): Robustness and Sensitivity Analysis of WAEMU CET on Welfare (US\$ Million)

Product Category	Base Case	Lower Bound	Upper Bound	Worst Case
Raw Materials	4.59	4.59	4.59	4.6
Intermediate Goods	4.08	4.08	4.08	4.08
Finished Goods	0	0	0	0
Total	8.67	8.67	8.67	8.68
% Change from Base	-	-	-	-

Source: Author's Own Calculations Based on SMART Simulations

Appendix 3 (a): Robustness and Sensitivity Analysis of FTAs on Trade Creation (US\$ Million)

Trade Reform	Base Case	Lower Bound	Upper Bound	Worst Case
ECOWAS FTA	538.23	538.23	538.23	538.23
WAEMU FTA	14.53	14.53	14.53	14.53
EU FTA	322.55	322.55	322.55	322.55
BFTA	1265	1265	1265	1265
WTO FTA	1330	1330	1330	1330

Source: Author's Own Calculations Based on SMART Simulations

Appendix 3 (b): Robustness and Sensitivity Analysis of FTAs on Revenue (US\$ Million)

Trade Reform	Base Case	Lower Bound	Upper Bound	Worst Case
ECOWAS FTA	-28.9	-27.14	-29.88	-37.17
WAEMU FTA	-10.5	-9.85	-10.82	-13.41
EU FTA	-294	-282	-300	-353
BFTA	-278	-266	-285	-337
WTO FTA	-787.74	-787.74	-787.75	-787.76

Source: Author's Own Calculations Based on SMART Simulations

Appendix 3 (c): Robustness and Sensitivity Analysis of FTAs on Welfare (US\$ Million)

Trade Reform	Base Case	Lower Bound	Upper Bound	Worst Case
ECOWAS FTA	37.8	27.83	37.78	37.68
WAEMU FTA	1.21	1.21	1.21	1.21
EU FTA	28.82	29.27	28.59	26.48
BFTA	61.09	62.44	61.78	59.96
WTO FTA	87.19	87.19	87.19	87.19

Source: Author's Own Calculations Based on SMART Simulations

Appendix 4 (a): Robustness and Sensitivity Analysis of Trade Reforms on Exports (%)

Trade Reform	Base Case	Lower Bound	Upper Bound	Worst Case
ECOWAS CET	-0.54	-0.08	-0.26	-0.81
WAEMU CET	-2.23	-1.57	-2.42	-4.24
ECOWAS FTA	17.59	16.98	17.99	18.1
WAEMU FTA	0.066	0.041	0.09	1.1
EU FTA	0.16	0.09	7.3	9.12
BFTA	0.14	0.072	1.84	4.83
WTO FTA	10.67	10.67	10.67	10.67

Source: Author's Own Calculations Based on SMART Simulations

Appendix 4 (b): Robustness and Sensitivity Analysis of Trade Reforms on Imports (%)

Trade Reform	Base Case	Lower Bound	Upper Bound	Worst Case
ECOWAS CET	0.87	0.87	0.87	0.87
WAEMU CET	2.48	2.48	2.48	2.48
ECOWAS FTA	4.32	4.32	4.32	4.32
WAEMU FTA	0.00057	0.00057	0.00057	0.00057
EU FTA	0.027	0.027	0.027	0.027
BFTA	0.065	0.065	0.065	0.065
WTO FTA	10.67	10.67	10.67	10.67

Source: Author's Own Calculations Based on SMART Simulations

**Appendix 5 (a): Summary of trade by principal trading partners and economic zones
(Imports cif; Exports fob; US\$ Million)**

Descriptions	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	8100	9800	10300	10300	11000	10900	12100	13000	11800
Imports	6700	7900	7000	7800	6700	9800	12500	11200	9500
Bilateral Trade	14800	17700	17200	18100	17800	20600	24600	24200	21400
Trade Balance	(1400)	(1900)	(3300)	(2400)	(4300)	(1100)	(-399)	(1800)	(2300)
ECOWAS	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	2047	3058	2494	2522	2274	2662	4044	2712	2573
Imports	2256	2448	1590	2179	1731	2786	3178	2648	1627
Trade Balance	(-209)	(610)	(904)	(343)	(543)	(-124)	(866)	(64)	(946)
ECOWAS (Excl. Nigeria and Ghana)	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	1239	1983	1216	1071	1308	1364	1331	1646	1638
Imports	612	128	121	100	141	209	221	147	173
Trade Balance	(627)	(1855)	(1095)	(971)	(1167)	(1155)	(1110)	(1499)	(1465)
WAEMU	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	1006	1205	892	957	1100	1272	1224	1452	1524
Imports	586	83	75	67	88	184	174	144	167
Trade Balance	(420)	(1122)	(817)	(890)	(1012)	(1088)	(1050)	(1308)	(1357)
WAEMU (Excl. Burkina Faso)	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	666	793	511	597	757	892	745	882	989
Imports	64	82	74	63	84	151	144	128	161
Trade Balance	(602)	(711)	(437)	(534)	(673)	(741)	(601)	(754)	(828)
EU28	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	4065	4697	4980	4015	4159	3854	4005	4538	4976

Descriptions	2007	2008	2009	2010	2011	2012	2013	2014	2015
Imports	2511	2194	2071	1996	1778	2617	2820	3029	3160
Trade Balance	1554	2503	2909	2019	2381	1237	1185	1509	1816
Nigeria	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	644	625	715	668	663	867	862	609	473
Imports	1600	2300	1400	2100	1600	2500	2900	2400	1400
Trade Balance	-963	-1700	-719	-1400	-906	-1600	-2000	-1800	-970
Ghana	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	162	450	563	783	303	431	1851	457.2	461.1
Imports	44	47	35	15	20	67	71	67	54
Trade Balance	118	403	528	768	283	364	1780	3902	407.1
Burkina Faso	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Exports	340	412	381	360	343	380	479	570	535.3
Imports	522	0.42	0.98	3.56	4	33	30	16	6.1
Trade Balance	-182	411.58	380.02	356.44	339	347	449	554	529.2
France	2007	2008	2009	2010	2011	2012	2013	2014	2015
Domestic Exports	1700	1400	1100	715.9	630.1	501.7	787.6	799.7	762.2
Imports	1500	999.6	991.5	931.4	791.1	1200	1300	1400	1300
Trade Balance	200	358.2	131.7	-215.5	-161	-708.6	-518.3	-564.5	-549.4
United Kingdom	2007	2008	2009	2010	2011	2012	2013	2014	2015
Domestic Exports	300.3	278.1	259.3	279.7	126.6	257.8	238.7	229.6	290.1
Imports	146.5	158.8	103.1	119.2	73.6	172.3	171.7	192.2	241.8
Trade Balance	153.9	119.3	156.2	160.4	53	85.5	66.9	37.4	48.3
Germany	2007	2008	2009	2010	2011	2012	2013	2014	2015
Domestic Exports	251.5	694.6	738	521.7	818.9	814.9	750	547.1	721.4
Imports	181	224.5	205.2	216.4	183.7	240.2	257	356.7	240.7

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Descriptions	2007	2008	2009	2010	2011	2012	2013	2014	2015
Trade Balance	70.5	470.1	532.8	305.3	635.2	574.7	493	190.4	480.7
United States	2007	2008	2009	2010	2011	2012	2013	2014	2015
Domestic Exports	547	945.1	800.3	1100	1300	877.9	741	1100	962.1
Imports	180	209.1	228.3	235.7	128.2	254.4	291.6	385.9	417.4
Trade Balance	367.2	736	572	824.4	1200	623.5	449.4	702.9	544.7
Netherlands	2007	2008	2009	2010	2011	2012	2013	2014	2015
Domestic Exports	737.1	1100	1400	1500	1300	949.6	966	1300	1400
Imports	120.5	155.8	163.5	140.2	135.4	195.6	242.7	245.5	272.6
Trade Balance	616.6	944.5	1300	1300	1200	754	723.2	1100	1200
China	2007	2008	2009	2010	2011	2012	2013	2014	2015
Domestic Exports	37.9	45.4	54.8	79.4	116.1	108.9	151.6	143.2	95.2
Imports	438.2	542.1	501	545.7	460.5	715.8	1400	980.5	1100
Trade Balance	-400.3	-496.7	-446.2	-466.3	-344.4	-606.9	-1300	-837.3	-1000

Source: UN COMTRADE Statistics

Appendix 6 (a): Exports classified by Country of Destination (fob, US\$ Million)

Partner \ Year	2011	2012	2013	2014	2015
Andorra					
United Arab Emirates	7	11	8	13	15
Afghanistan	0	0	1	12	0
Anguilla					
Albania					
Armenia					
Netherlands Antilles					
Angola	0.41	0.81	1	0.11	0.18
Argentina					
Austria	59	45	138	75	85
Australia					
Aruba					
Azerbaijan					
Bosnia and Herzegovina					
Barbados					
Bangladesh					
Belgium	0.36	0.43	0.41	0.56	0.77
Burkina Faso	0.34	0.38	0.479	0.57	0.53
Bulgaria					
Bahrain					
Burundi					
Benin					
Bermuda					
Bolivia					
Brazil					

Partner \ Year	2011	2012	2013	2014	2015
Bahamas					
Bhutan					
Botswana					
Belize					
Canada					
Central African Republic					
Congo					
Switzerland					
Cote d'Ivoire					
Chile					
Cameroon					
China	0.11	0.10	0.15	0.14	0.9
Colombia					
Costa Rica					
Cuba					
Cyprus					
Czech Republic					
Germany	0.81	0.81	0.74	0.54	0.72
Democratic Republic of Congo					
Djibouti					
Denmark					
Dominica					
Dominican Republic					
Algeria					
Ecuador					
Estonia					
Egypt					

Partner \ Year	2011	2012	2013	2014	2015
Eritrea					
Spain	181	209	209	245	304
Ethiopia					
Finland					
France	630	501	787	799	762
Gabon					
United Kingdom	126	257	238	229	290
Georgia					
Ghana	303	431	1851	457	461
Gibraltar					
Gambia					
Guinea					
Guadeloupe					
Equatorial Guinea					
Greece					
Guinea-Bissau					
Guyana					
Hong Kong					
Honduras					
Croatia					
Haiti					
Hungary					
Indonesia	46	66	73	273	73
Ireland					
Israel					
India	280	350	250	530	495
Iraq					

Partner \ Year	2011	2012	2013	2014	2015
Iran, Islamic Republic of					
Iceland					
Italy	312	240	200	310	280
Jamaica					
Jordan					
Japan					
Kenya					
Cambodia					
Comoros					
Saint Kitts and Nevis					
Korea, Democratic People's Rep. of					
Korea, Republic of					
Kuwait					
Cayman Islands					
Kazakhstan					
Lao People's Democratic Republic					
Lebanon					
Liechtenstein					
Sri Lanka					
Liberia					
Lesotho					
Lithuania					
Luxembourg					
Latvia					
Libyan Arab Jamahiriya					
Morocco					
Madagascar					

Partner \ Year	2011	2012	2013	2014	2015
Mali	245	295	357	368	487
Myanmar					
Mongolia					
Macau					
Mauritania					
Malta					
Mauritius					
Malawi					
Mexico					
Malaysia					
Mozambique					
Namibia					
New Caledonia					
Niger					
Nigeria	693	867	862	609	473
Netherlands	1300	949	965	1297	1427
Norway					
Nepal					
Niue					
New Zealand					
Oman					
Panama					
Peru					
Philippines					
Pakistan					
Poland					
Puerto Rico					

Partner \ Year	2011	2012	2013	2014	2015
Portugal					
Paraguay					
Qatar					
Reunion					
Romania					
Russian Federation					
Rwanda					
Saudi Arabia					
Seychelles					
Sudan					
Sweden					
Singapore					
Slovenia					
Slovakia					
Sierra Leone					
Senegal					
South Africa	616	396	355	892	320
Sao Tome and Principe					
El Salvador					
Swaziland					
Chad					
Togo	140	123	105	186	241
Thailand					
Tajikistan					
Tunisia					
Turkey	108	111	108	178	230
Trinidad and Tobago					

Partner \ Year	2011	2012	2013	2014	2015
Taiwan, Province of China					
United Republic of Tanzania					
Ukraine					
Uganda					
United States	1310	877	740	1080	962
Uruguay					
Uzbekistan					
Venezuela					
British Virgin Islands					
United States Virgin Islands					
Viet Nam	111	112	174	424	352
Wallis and Futuna Islands					
Yemen					
Yugoslavia					
Zambia					
Total	11 049	10860	12083	12985	11844

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 7 (a): Imports classified by Country (cif, US\$ Million)

Partner \ Year	2011	2012	2013	2014	2015
Andorra					
United Arab Emirates	21	34	45	50	47
Afghanistan					
Antigua and Barbuda					
Albania					
Armenia					
Netherlands Antilles					
Angola	3	6	661	10	15
Argentina	23	41	11	13	34
American Samoa					
Austria	8	9	14	9	10
Australia	19	17	31	14	21
Aruba					
Other Asian Countries					
Azerbaijan					
Bosnia and Herzegovina					
Barbados					
Bangladesh					
Belgium	83	151	166	140	175
Burkina Faso	4	33	30	16	6
Bulgaria					
Bahrain					
Burundi					
Bermuda					
Brunei Darussalam					

Partner \ Year	2011	2012	2013	2014	2015
Bolivia					
Brazil	87	88	79	72	42
Bahamas	0	0	1460	612	0
Bhutan					
Bouvet Island					
Botswana					
Belarus					
Belize					
Canada	20	30	23	30	24
Cocos (Keeling) Islands					
Central African Republic					
Congo					
Switzerland	48	37	42	38	36
Zimbabwe					
Chile					
Cameroon					
China	450	715	1423	980	1113
Colombia					
Costa Rica					
Cuba					
Cape Verde					
Christmas Island[Australia]					
Cyprus	1	2	1	1	2
Czech Republic					
Germany	183	240	257	356	240
Democratic Republic of Congo					
Djibouti					

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Partner \ Year	2011	2012	2013	2014	2015
Denmark	11	8	14	14	14
Dominica					
Dominican Republic					
Algeria					
Ecuador					
Estonia					
Egypt					
Eritrea					
Spain	150	189	201	233	295
Ethiopia					
Finland	6	10	11	11	11
Fiji					
Faeroe Islands					
France	791	1210	1305	1364	1311
Gabon					
United Kingdom	73	172	171	192	241
Grenada					
Georgia					
French Guiana					
Ghana	20	67	71	67	53
Gibraltar					
Gambia					
Guinea					
Guadeloupe					
Greece	10	23	27	13	12
Guatemala					
Guinea-Bissau					

Partner \ Year	2011	2012	2013	2014	2015
Guyana					
Hong Kong	1	4	4	6	9
Honduras					
Croatia					
Hungary					
Indonesia					
Ireland	19	12	10	26	18
Israel	5	9	16	23	32
Isle of Man					
India	179	389	320	556	365
Iraq					
Iran, Islamic Republic of					
Iceland					
Italy	155	186	161	237	379
Jamaica					
Jordan					
Japan	138	189	191	194	209
Kenya	2	2	1	1.7	1.7
Kyrgyzstan					
Cambodia					
Kiribati					
Comoros					
Saint Kitts and Nevis					
Korea, Democratic People's Rep. of					
Korea, Republic of					
Kuwait					
Cayman Islands					

Partner \ Year	2011	2012	2013	2014	2015
Kazakhstan					
Lao People's Democratic Republic					
Lebanon	15	23	28	27	22
Liechtenstein					
Sri Lanka					
Liberia	37	10	2	-	-
Lesotho					
Lithuania					
Luxembourg	0	3	6	6	5
Latvia					
Libyan Arab Jamahiriya					
Morocco	63	80	141	172	205
Monaco					
Republic of Moldova					
Madagascar					
Marshall Islands					
Midway Islands					
The former Yugoslav Rep. Macedonia					
Mali					
Myanmar					
Mongolia					
Macau					
Northern Mariana Islands					
Mauritania					
Montserrat					
Malta					
Mauritius					

Partner \ Year	2011	2012	2013	2014	2015
Maldives					
Malawi					
Mexico	3	7	10	12	10
Malaysia					
Mozambique					
Namibia					
New Caledonia					
Niger					
Nigeria	1570	2510	2886	2434	1444
Nicaragua					
Netherlands	135	195	242	245	272
Norway	4	9	6	9	14
Nepal					
Nauru					
Niue					
New Zealand	9	11	7	10	15
Oman					
Panama					
Peru					
Papua New Guinea					
Philippines	5	4	6	3	3
Pakistan					
Poland	21	25	28	29	25
Saint Pierre and Miquelon					
Pitcairn					
Puerto Rico					
Portugal					

Partner \ Year	2011	2012	2013	2014	2015
Paraguay					
Qatar					
Reunion					
Romania					
Russian Federation					
Rwanda					
Saudi Arabia					
Seychelles					
Sudan					
Sweden	37	66	57	52	32
Singapore					
Saint Helena					
Slovenia					
Slovakia					
Sierra Leone					
Senegal					
Somalia					
Suriname					
Sao Tome and Principe					
El Salvador					
Syrian Arab Republic					
Swaziland					
Turks and Caicos Islands					
Chad					
French Southern Territories					
Togo					
Thailand	347	287	261	243	229

Partner \ Year	2011	2012	2013	2014	2015
Tokelau					
Turkmenistan					
Tunisia					
East Timor					
Turkey	460	715	1423	980	1123
Trinidad and Tobago					
Taiwan, Province of China					
United Republic of Tanzania					
Ukraine	40	47	47	25	17
Uganda					
United States	128	254	291	385	417
Uruguay					
Holy See (Vatican)					
Saint Vincent and the Grenadines					
Venezuela					
British Virgin Islands					
United States Virgin Islands					
Viet Nam					
Wallis and Futuna Islands					
Yemen					
Yugoslavia					
South Africa	84	123	110	122	102
Zambia					
Total	6719	9769	12482	11177	9532

Source: UN COMTRADE Statistics

Appendix 8 (a): Imports from WAEMU classified SITC Section, (c.i.f, US\$ millions)

SITCR3 \ Year	2011	2012	2013	2014	2015
Fish and crustaceans	38	51	60	53	82
Mineral fuels, mineral oils	1	28	28	1	13
Salt	13	11	12	12	12
Cotton	7	11	9	11	8
Vehicles other than railways	2	10	11	3	1
Edible vegetables	-	5	3	7	7
Fertilizer	-	7	3	-	1
Man-made filament	-	-	-	1	1
Miscellaneous edible preparations	1	5	9	6	5
Pharmaceutical products	4	5	4	4	2
Beverages, spirit and vinegar	4	5	-	1	-
Tobacco and manufactured tobacco substitutes	4	4	8	7	8
Residue and waste from the food industries	3	4	5	5	2
Machinery and mechanical appliances	-	3	4	5	2
Electrical machinery	-	3	2	3	1
Commodities and transactions not classified elsewhere	12	35	19	25	22
Total	89	187	177	144	167

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 8 (b): Exports to WAEMU classified SITC Section, (fob, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuels and mineral oils	265	385	393	565	673
Animal or vegetable fats	173	185	122	108	105
Plastics and articles thereof	66	71	74	70	71
Miscellaneous edible preparations	76	55	55	65	70
Tobacco and manufacture tobacco	56	56	65	67	66
Soap, organic surface-active agents	59	57	61	60	54
Essential oils and Resinoids	37	37	39	47	49
Vehicles other than railways	33	14	11	18	48
Preparations of cereals	30	33	35	35	39
Commodities and transactions not classified elsewhere	248	326	341	397	349
Total	1043	1219	1196	1432	1524

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 9 (a): Imports from ECOWAS Classified by SITC Section, (cif, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuels	1544	2508	2858	2389	1413
Fish and crustaceans	55	74	103	54	94
Tobacco and tobacco substitutes	14	16	26	28	25
Salt	3	18	14	16	14
Cotton	8	13	16	20	11
Pharmaceutical products	3	16	5	5	9
Machinery mechanical appliances	15	13	22	11	9
Edible vegetables and certain roots	1	12	3	7	7
Miscellaneous edible preparations	8	15	11	7	7
Commodities and transactions not classified elsewhere	830	1150	123	112	81
Total	1734	2800	3181	2649	1670

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 9 (b): Total Exports to ECOWAS Classified by SITC Section (fob, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuels	1000	1373	1243	1174	1110
Essential oil	129	139	110	172	166
Plastic and article thereof	102	124	123	150	164
Animal and vegetable oils, fats and waxes	249	255	187	207	157
Miscellaneous edible preparations	93	86	92	103	105
Soap organic surface active agents,	95	82	79	81	76
Tobacco and manufactured tobacco substitutes	56	56	65	67	66
Machinery mechanical appliances	39	59	70	43	54
Footwear, gaiters and the like	39	59	59	70	51
Commodities and transactions not classified elsewhere	268	1198	2051	625	624
Total	2 070	1 035	4079	2692	2573

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 10 (a): Imports from EU28 Classified by SITC Section, (cif US\$ Millions)

SITCR3 \ Year	2011	2012	2013	2014	2015
Machinery, mechanical appliances	220	433	399	441	462
Articles of Iron or steel	134	238	95	161	95
Vehicles other than railway or tramway rolling stock	177	115	255	293	273
Mineral fuels, mineral oils	40	71	90	68	241
Electrical machinery and equipment	134	238	277	205	173
Pharmaceutical products	147	185	175	208	141
Cereals	177	197	201	176	141
Plastics and articles thereof	60	77	85	93	110
Tobacco and manufactured tobacco	-	-	29	34	83
Commodities and transactions not classified elsewhere	672	1070	1207	1357	1446
Total	1761	2624	2813	3036	3165

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 10 (b): Total Exports to EU28 classified by SITC Section (fob, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Cocoa and Cocoa preparations	2638	2155	2112	2974	3532
Mineral fuel, mineral oils	454	735	776	471	512
Rubber and articles thereof	546	461	412	329	265
Edible fruits and nuts	161	167	178	169	152
Preparations of meat, or fish or crustaceans	-	2	16	45	138
Vehicles other than railways	38	15	213	239	114
Woods and articles of woods	98	91	85	94	88
Machinery and mechanical appliances	6	17	17	40	36
Aircraft, spacecraft and parts thereof	59	36	-	21	19
Commodities and transactions not classified elsewhere	157	176	197	155	151
Total	4157	3855	4006	4537	5007

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 11 (a): Imports from Nigeria by STIC (US\$ millions)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuel	1543	2464	2839	2387	1399
Tobacco and manufactured Tobacco substitutes	9	11	17	21	17
Miscellaneous chemical products	5	6	7	10	5
Machinery, mechanical appliances	1	3	3	-	4
Soap, organic surface active agents	-	3	-	-	4
Essential oils and resinoids	1	3	4	4	3
Articles of Iron or steel	-	-	-	1	2
Man-made filament	-	-	-	-	2
Dairy produce bird' eggs, naural honey	-	-	1	3	1
Commodities and transactions not classified elsewhere	110	20	15	8	7
Total	1570	2510	2886	2434	1444

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 11 (b): Total Exports to Nigeria classified by SITC Section, (fob, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuel	530	716	728	406	332
Essential oils and resinoids	40	42	27	59	54
Animal or vegetable fats and oils	54	64	62	96	49
Soap, organic surface active agents	2	3	3	8	8
Miscellaneous edible preparations	4	3	5	5	8
Machinery, mechanical appliances	-	1	7	6	6
Footwear, gaiters and the like	13	15	15	12	2
Other made up textile article	4	3	3	1	2
Manufactures of straw	2	2	1	1	2
Commodities and transactions not classified elsewhere	14	18	11	15	10
Total	663	867	862	609	473

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 12 (a): Import from China classified by SITC Section, (cif; US\$ Millions)

SITCR3 \ Year	2011	2012	2013	2014	2015
Machinery mechanical appliances	47	78	115	127	148
Electrical machinery	82	141	145	142	138
Iron and Steel	13	20	48	72	116
Vehicles other than railway	23	52	63	77	98
Miscellaneous chemical products	28	32	54	95	96
Articles of Iron or steel	11	29	40	40	78
Fish and crustaceans	16	28	34	41	42
Plastic and article thereof	15	20	24	28	39
Ceramic products	11	20	24	26	24
Commodities and transactions not classified elsewhere	214	295	876	332	334
Total	460	715	1423	980	1113

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 12 (b): Exports to China classified by SITC Section (fob US\$ Millions)

SITCR3 \ Year	2011	2012	2013	2014	2015
Cotton	28	65	28	65	68
Woods and articles of woods	3	10	3	10	23
Other base metals	-	-	0	0	15
Ores, slag and ash	-	1	0	1	14
Rubber and articles thereof	65	18	65	18	13
Cocoa and cocoa preparations	15	11	15	11	13
Copper and articles thereof	1	-	1	-	-
Edible fruits and nuts	-	1	-	1	-
Electrical machinery and equipment	-	-	-	-	-
Commodities and transactions not classified elsewhere	4	2	4	2	5
Total	116	108	116	108	151

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 13 (a): Imports from Netherlands classified by SITC Section: (cif, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuel	4	16	25	12	106
Edible vegetables	28	26	41	29	34
Dairy produce bird' eggs, natural honey	17	24	24	24	24
Vehicles other than railway	9	9	11	15	14
Preparations of cereals, flour	4	6	12	14	11
Machinery, mechanical appliances, nuclear reactors	7	19	19	19	11
Organic chemicals	5	10	12	13	9
Residues and waste from the food industries	4	6	9	9	7
Cotton	3	5	6	5	6
Commodities and transactions not classified elsewhere	54	74	83	105	50
Total	135	195	242	245	272

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 13 (b): Exports to classified by SITC Netherlands section (fob, US\$ Millions)

SITCR3 \ Year	2011	2012	2013	2014	2015
Cocoa and Cocoa preparations	1158	795	739	1103	1303
Mineral fuels, mineral oils	80	102	180	132	83
Rubber and articles thereof	42	28	26	21	18
Edible fruits and nuts	3	6	8	6	14
Inorganic chemicals	1	-	1	3	2
Woods and articles of Woods	6	2	-	2	1
Miscellaneous edible preparations	-	-	-	-	-
Machinery, mechanical appliances	-	1	1	1	-
Other made-up textile articles	-	-	-	-	-
Commodities and transactions not classified elsewhere	6	15	10	29	6
Total	1296	949	965	1297	1427

Appendix 14 (a): Imports from France classified by SITC section, (cif, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuels, mineral oils	6	25	10	11	34
Meat and edible meat offal	5	10	18	21	19
Cereals	168	197	197	176	134
Electrical machinery and equipment	80	122	150	133	108
Dairy produce bird' eggs, natural honey	11	14	17	23	18
Machinery, mechanical appliances	71	154	138	135	153
Pharmaceutical products	110	141	138	132	99
Vehicles other than railway or tramway	38	88	152	158	151
Articles of Iron or steel	13	30	46	49	50
Commodities and transactions not classified elsewhere	289	429	439	526	545
Total	791	1210	1305	1364	1311

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 14 (b): Exports to France classified by SITC (fob; US\$ Millions)

SITCR3 \ Year	2011	2012	2013	2014	2015
Edible fruits and nuts	38	48	60	58	51
Cocoa and cocoa preparations	380	299	352	390	379
Pharmaceutical products	3	5	4	4	4
Rubber and articles thereof	66	63	38	20	26
Wood and articles of wood	8	9	10	9	10
Electrical machinery and equipment	4	7	8	8	2
Vehicles other than railway	38	15	213	238	111
Aircraft and spacecraft	58	8	-	1	4
Coffee, tea and spices	2	6	3	3	2
Commodities and transactions not classified elsewhere	33	41	99	68	173
Total	630	501	787	799	762

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 15 (a): Imports from United States classified by SITC section (cif; US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuel	9	5	11	68	87
Tobacco and manufactured Tobacco substitutes	-	1	6	2	-
Meat and edible meat offal	4	6	4	3	2
Machinery, mechanical appliances	26	78	98	109	122
Plastic and articles thereof	26	36	43	38	48
Paper and paperboards	9	10	8	11	7
Articles of Iron or steel	3	11	29	30	19
Electrical machinery and equipment	4	11	10	12	23
Vehicles other than railways	12	21	15	25	15
Commodities and transactions not classified elsewhere	35	75	67	87	94
Total	128	254	291	385	417

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 15 (b): Exports to United States classified by SITC section (fob, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuel	313	139	29	165	12
Rubber and articles thereof	136	83	99	74	46
Machinery, mechanical appliances	6	2	2	3	4
Essential oil and resinoids	-	1	-	1	1
Edible fruits and nuts	5	8	17	16	21
Cocoa and cocoa preparations	844	628	576	814	861
Wood and articles of wood	8	10	10	10	6
ACPCommodities and transactions not classified elsewhere	6	6	7	5	11
Total	1318	877	740	1088	962

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 16 (a): Imports from Germany classified by SITC (cif; US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuel	3	7	4	3	5
Meat and edible meat offal	4	7	9	13	12
Electrical machinery and equipment	5	8	9	10	8
Machinery, mechanical appliances	44	57	66	78	47
Pharmaceutical products	11	10	7	11	8
Organic chemicals	3	4	4	5	7
Essential oils and resinoids	2	1	2	2	2
Plastic and article thereof	9	10	10	14	12
Vehicles other than railway	47	64	58	72	53
Commodities and transactions not classified elsewhere	55	72	88	148	86
Total	183	240	257	356	240

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 16 (b): Exports to Germany by SITC Section (fob US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Mineral fuel	291	453	404	164	228
Rubber and articles thereof	156	110	110	89	67
Wood and articles of wood	8	9	8	6	4
Animal or vegetable fats	38	10	6	-	-
Cotton	-	-	-	1	1
Cocoa and cocoa preparations	320	229	213	280	407
Commodities and transactions not classified elsewhere	5	3	8	7	14
Total	818	814	749	547	721

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 17 (a): Imports from South Africa classified by SITC Section (fob, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Electrical machinery and equipment	2	3	4	4	3
Pharmaceutical products	1	1	1	-	-
Edible fruits and nuts	3	5	5	5	6
Machinery, mechanical appliances	7	14	11	7	8
Plastic and article thereof	20	23	25	23	18
Articles of Iron and steel	3	8	4	4	3
Iron and steel	17	14	11	18	13
Paper and paperboard	6	6	2	3	2
Vehicles other than railways	11	30	27	27	27
Commodities and transactions not classified elsewhere	14	19	20	31	22
Total	84	123	110	122	102

Source: Author's Own Calculations Based on UN COMTRADE Statistics

Appendix 17 (b): Exports to South Africa classified by SITC (fob, US\$ Million)

SITCR3 \ Year	2011	2012	2013	2014	2015
Cocoa and cocoa preparations	5	13	14	13	8
Essential oil and resinoids	1	2	-	2	1
Machinery, mechanical appliances	1	-	4	15	-
Natural or cultured pearls	413	363	323	283	296
Rubber and articles thereof	181	14	9	4	8
Ships, boat and floating structure	-	-	-	566	-
Wood and articles of wood	-	1	1	2	1
Commodities and transactions not classified elsewhere	4	3	4	7	6
Total	605	396	355	892	320

Source: Author's Own Calculations Based on UN COMTRADE Statistics

**Appendix 18 (a): Composition of Trade Creation in Cote d'Ivoire by Product by Country
(US\$ Million) After WTO FTA**

Member	HS Code	Product Denomination	TCE*
China	842619	Mobile lifting frames, straddles carriers and works trucks	7.02
	730300	Tubes pipes and hollow profile	5.6
	3808	Insecticide	3.2
	870410	Dumpers designed for off highway use	1.9
	851762	Machine for reception, conversion and regeneration of voice	1.619
	851761	Base station	1.02
	Other	Other Products not specified above	33.7
	Total		54
France	870000	Motor vehicles	21.88
	100190	Wheat and Meslin	10.6
	481910	Cartons, boxes of corrugated paper or paperboard	6.3
	852352	Smart cards	4.04
	20329	Meat	3.9
	851761	Electrical apparatus for line telephony	3.12
	271019	Petroleum oil	2.9
	392330	Carboys, bottles, flasks and similar articles	2.4
	330290	Mixtures of odoriferous substances and mixtures	1.45
	Other	Other Products not specified above	53.5
	Total		110.17
Germany	870000	Motor vehicles	9.5
	350691	Adhesive based on polymers	1.9
	392310	Boxes, cases and similar articles	1.09
	Other	Other Products not specified above	8.81

Member	HS Code	Product Denomination	TCE*
	Total		21.3
	Total		73.23

*Trade Creation Effect

Source: Author's Own Calculations Based on SMART Simulations