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The economic and social effects of the Economic Partnership Agreements on selected African countries

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7/2018 RESEARCH REPORT



The economic and social effects of the Economic Partnership Agreements on selected African countries

Vienna, July 2018

Jan Grumiller, Werner Raza, Cornelia Staritz, Bernhard Tröster, Rudi von Arnim

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**AUSTRIAN FOUNDATION FOR
DEVELOPMENT RESEARCH**

**The economic and social effects of the
Economic Partnership Agreements on selected African countries**

Jan Grumiller, Werner Raza, Cornelia Staritz, Bernhard Tröster, Rudi von Arnim

Final Report, 12 July 2018

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ABBREVIATIONS

ACP	African, Caribbean and Pacific countries
ADRA	Adventist Development and Relief Agency
AfT	Aid for Trade
AGOA	African Growth and Opportunity Act
BLNS	Botswana, Lesotho, Namibia, Swaziland
BMLNS	Botswana, Mozambique, Lesotho, Namibia and Swaziland
BMU	Beach Management Unit
BMZ	Federal Ministry for Economic Cooperation and Development
CARIFORUM	Forum of the Caribbean Group of African, Caribbean and Pacific States
CC	Consultative Committee
CET	common external tariff
CETA	Comprehensive Economic and Trade Agreement
CGE model	Computable General Equilibrium model
CMC	Cocoa Marketing Company
CMT	cut-make-trim
CoC	codes of conducts
COCOSHE	Cocoa, Coffee and Sheanut Farmers' Association
COMESA	Common Market for Eastern and Southern Africa
CORE	Center for Robusta Excellence
CPC	Cocoa Processing Company
CRIG	Cocoa Research Institute of Ghana
CSR	corporate social responsibility
DAG	Domestic Advisory Groups
DCFTA	Deep and Comprehensive Free Trade Agreement
DFQF	duty-free-quota-free
EAC	East African Community
EALA	East African Legislative Assembly
EBA	Everything but Arms
EC	European Community
ECF	Extended Credit Facility
ECOWAS	Economic Community of West African States
EDF	European Development Fund
EDIF	Export Development Investment Fund
EIB	European Investment Bank

EPA	Economic Partnership Agreement
EPZ	Export Processing Zone
ESA-EPA	Eastern and Southern African-EPA
EU	European Union
EUR	Euro
FAGE	Federation of Association of Ghanaian Exporters
FAO	Food and Agriculture Organization
FAQ	fair and average quality
FDA	Food and Drugs Authority
FDI	foreign direct investment
FOB	free on board
FPMAG	Fruit Processors & Marketers Association
FTA	free-trade agreement
GDP	gross domestic product
GEPA	Ghana Export Promotion Authority
GITC	Ghana International Trade Commission
GSA	Ghana Standards Authority
GSP	Generalized System of Preferences
GTAP	Global Trade Analysis Project
GVCs	global value chains
HPW	Hans Peter Werder (Swiss Company)
IAM	Mozambique Cotton Institute
ICA	International Coffee Agreement
ICE	International Commodity Exchange in New York
iEPA	Interim Economic Partnership Agreement
ILO	International Labor Organization
INNOQ	Instituto Nacional de Normalização e Qualidade
ITFC	Integrated Tamale Fruit Company
JC	Joint Council
JPC	Joint Parliamentary Committee
LBC	Licensed Buying Company
LDC	Least Developed Country
LEAF	Fairtrade, organic and Linking Environment and Farming
LEAP	Livelihood Empowerment Against Poverty
LIFFE	London International Financial Futures and Options Exchange
M&A	Merger and Acquisition

MAR	Market Access Regulation
MCM	Mozambique Cotton Manufacturers
MEA	Multilateral Environmental Agreements
MFA	Multifibre Arrangement
MFN	most favored nation
MOTI	Ministry of Trade and Industry
NaCORI	National Coffee Research Institute
NBSSI	National Board for Small Scale Businesses
NDC	National Democratic Congress
NGO	Non Governmental Organization
NIP	National Indicative Programme
NPP	New Patriotic Party
ODA	Official Development Assistance
ÖFSE	Austrian Foundation for Development Research
PAPED	EPA Development Programme
PBC	Produce Buying Company
PNDC	Provisional National Defence Council
PPRC	Producer Price Review Committee
PPRSD	Plant Protection and Regulatory Services Directorate
QCC	Quality Control Company
RIP	Regional Indicative Programmes
RoO	Rules of Origin
SACU	South African Customs Union
SADC	South African Development Community
SAP	Structural Adjustment Program
SMETA	Sedex Methodology Ethical Trade Audit
SPD	Seed Production Division
SPS	Sanitary and Phytosanitary
SSA	Sub-Saharan Africa
T&A	Textile and Apparel
TBT	Technical Barriers to Trade
TCF	Third Country Fabric
TDC	Trade and Development Committee
TDCA	Trade, Development and Cooperation Agreement
TRAQUE	Trade Related Assistance and Quality Enabling Program
TRF	Trade Related Facility

TRQ	Tariff Rate Quotas
TWN	Third World Network
UCDA	Uganda Coffee Development Authority
UEMOA	African Economic and Monetary Union
UFPEA	Uganda Fish Processors and Exporters Association
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USD	US Dollar
WAMCO	West African Mills Company
WPA	Wirtschaftspartnerschaftsabkommen
WTO	World Trade Organization

EXECUTIVE SUMMARY

The European Union (EU) has concluded or currently is in the process of concluding Economic Partnership Agreements (EPAs) with the group of African, Caribbean and Pacific (ACP) countries. Representing the economic pillar of the framework Cotonou Agreement, the EPAs mark the beginning of a new era in the economic relations between the EU and the ACP countries. Instead of the unilateral approach prevalent until the Lomé Agreements, the EPAs are bi-regional reciprocal agreements, which commit both parties. Unsurprisingly, the negotiations on the EPAs have thus proved challenging and highly controversial. It typically took ten or more years to conclude negotiations, with ratification of agreements still pending in some countries at the time of writing this report. The EPAs which are in the focus of this study thus involve on the one hand the EU as an economically highly advanced group of countries, and on the other hand a large number of African countries that dispose of rather fragile and structurally dependent economies governed by mostly weak governments characterized by a lack of institutional capacities.

Given their political sensitivity, the EPAs must deliver tangible benefits to the African partners. Thus, the trade liberalization and further changes facilitated by the agreements must trigger sustainable economic development for the African partner countries, i.e. economic growth that is socially inclusive and respects ecological boundaries. EPAs are therefore primarily to be judged against this yardstick, which is the approach adopted in this study. Apart from assessing the impact of the EPAs and investigating export potentials, the study also aims at providing policy-recommendations for EU Development Cooperation in the latter's efforts to support development-friendly implementation of the EPAs.

The methodological approach of this report combines both quantitative and qualitative methods. While the economic assessment is based on simulations with the ÖFSE Global Trade Model, the qualitative analysis on the agreements and their implementation challenges as well as the case studies draw on text and data analysis, a literature review and field research in Ghana, Mozambique and Uganda.

The report starts with an assessment of the main provisions of the three EPAs covered – the South African Development Community EPA (SADC-EPA), the Economic Community of West African States EPA (ECOWAS-EPA) and the East African Community EPA (EAC-EPA), thereby focusing on the market access offer and the provisions in the agreement which potentially limit the developmental policy space as well as offer a potential to strengthen sustainability aspects in African partner countries. Then the implications of the three specific EPAs with a focus on Mozambique, Ghana and Uganda, respectively, are scrutinized. The respective analyses provide assessments of the economic impact of the three regional EPAs on Mozambique, Ghana and Uganda, based on simulations with the ÖFSE Global Trade Model. Based on interviews with stakeholders during field research in the three countries, implementation challenges associated with the agreements are discussed. Further, different sectoral case studies are analyzed to investigate the potential of the EPAs on the export side, highlighting the opportunities and challenges for export promotion policies in the context of global value chains and related lead firm strategies as well as local competitiveness conditions. The five sectoral case studies include the cotton, textile and apparel sectors in selected SADC countries with a focus on Mozambique, the cocoa and mango sectors in Ghana, and the coffee and fish sectors in Uganda.

The main findings and key policy recommendations of the study can be summarized as follows:

1. Estimated economic effects of trade liberalization for Africa are negative, but mostly small

The key characteristic of the EPAs is asymmetrical market opening by African partners, as exports of ACP countries enjoy already DFQF market access to the EU. Though smoothed by long implementation periods and exemptions for sensitive products, tariff liberalization in industrial goods and – to a lesser degree – agricultural products will likely result in negative net effects on output and employment for ACP partners. The ECOWAS region will face losses amounting to roughly 0.61% of GDP. Effects for the EAC and SADC regions are smaller, amounting to 0.42% and 0.20%, respectively. All economic sectors will be affected, with industrial sectors such as machinery, chemicals and other manufacturing hit hardest. Only some already important export sectors in EPA countries, e.g. commodities and foodstuffs, might see limited increases in exports to the EU.

2. Adjustment costs need EU policy responses

Firstly, trade liberalization affects employment. Our simulations suggest that job losses on the order of magnitude of 18,000 jobs in SADC, 85,000 jobs in EAC, and 210,000 jobs in ECOWAS are possible. In particular, jobs in the manufacturing sector are affected. Secondly, tariff revenues are an important source of income for public budgets in most SSA-countries, particularly in ECOWAS. Estimations relating tariff reduction schedules to current import volumes indicate tariff revenue losses for ECOWAS countries (including Nigeria) of more than USD 600 million p.a. between years 5 to 10 of the implementation period, which would then increase to USD 1.7 billion p.a. at the end of the implementation period. For Ghana, the respective numbers are approximately USD 70 million p.a., and USD 225 million p.a.. Thus, the social groups potentially affected adversely by trade liberalization will be workers in industrial sectors that cannot withstand import competition and households that disproportionately depend on social transfers and public services financed through state budgets, which see less revenue from tariffs.

This necessitates a three-pronged policy response: first, EU fiscal adjustment support needs to be substantially increased in the period post-2020 in order to compensate for the expected revenue losses. Second, adjustment assistance to help workers that lose jobs to find new jobs and financial support in the interim period are required. Third, EU support to strengthen domestic resource mobilization in ACP partner countries should be scaled-up immediately. These measures require a substantial increase of funds under EU development cooperation programs.

3. Promotion of export sectors needs strong industrial policies for structural transformation

Counter-balancing the negative effects of asymmetrical liberalization will necessitate a long-term strategy for the promotion and upgrading of export sectors. A focus should be laid upon:

- 1) Support services in the area of finance, skill development and extension services in agricultural and manufacturing sectors are required to foster the development of farmers and local firms. A focus on initiating collaboration and linkages among local actors (farmers and firms) as well as between local and foreign firms can help to support productivity and learning.

- 2) The development of effective public institutions is crucial to increase productivity, upgrading and diversification. Public-private dialogue and broad inclusion of civil society is important to ensure effective and sustainable policies and outcomes.
- 3) Regional integration on the production as well as end market side should be used strategically to tackle productive constraints and influence the bargaining power vis-à-vis global buyers. Further, domestic and regional end markets can be an important alternative to high income country markets particularly for developing further functional upgrading processes in terms of agro-processing and manufactured products.

4. EU Development Cooperation will need to support comprehensive capacity-building in the public sector

EU development funding via Aid for Trade has so far focused on spending for infrastructure and private sector capacity-building. A key factor both for successful EPA implementation and the active management of the flexibilities of the agreement as well as productive development with a focus on upgrading and economic diversification will however be the capacities of governments and public institutions. A substantial increase of funds available for trade policy and regulation as well as trade policy development under EU development cooperation programs is thus necessary.

5. EPA monitoring process must be results-oriented, inclusive, transparent, and flexible

The monitoring process will be absolutely pivotal both in terms of the agreements' economic success and its political acceptance. This will require three central elements: (i) a common understanding of the agreement's objectives and identification of key implementation challenges by governments, the private sector and civil society (including academia); (ii) a transparent monitoring and assessment process based on an agreed-upon and concise methodology, and (iii) the flexibility to adapt the implementation process and the agreements in response to changing economic and political conditions. EU financial support for facilitating in particular civil society participation, for funding concomitant academic research as well as, in general, a magnanimous commitment to the development prerogatives of the EPAs will be essential.

ZUSAMMENFASSUNG

Die Europäische Union (EU) hat in den letzten Jahren Wirtschaftspartnerschaftsabkommen (WPA) mit der Gruppe der afrikanischen, karibischen und pazifischen (AKP) Staaten ausverhandelt. Als wirtschaftliche Säule des Cotonou-Rahmenabkommens markieren die WPA den Beginn einer neuen Phase in den Wirtschaftsbeziehungen zwischen der EU und den AKP-Staaten. Anstelle des unilateralen Ansatzes der Lomé-Abkommen, sind die WPA bi-regionale, reziproke Abkommen mit Verpflichtungen für beide Vertragsparteien. Wenig überraschend waren die Verhandlungen daher schwierig und kontroversiell. Es dauerte oft zehn oder mehr Jahre bis zum Verhandlungsabschluss. Zum Zeitpunkt der Abfassung dieser Studie steht die Ratifizierung der Abkommen in einigen Ländern nach wie vor aus. Die für diese Studie zentralen WPA sind also dadurch charakterisiert, dass die EU als wirtschaftlich hoch entwickelter Wirtschaftsraum mit einer großen Anzahl von afrikanischen Ländern verhandelt, welche fragile und strukturell abhängige Volkswirtschaften mit überwiegend schwachen institutionellen Strukturen und Kapazitäten aufweisen.

Angesichts dieser Ausgangslage ist unbestritten, dass die WPA den afrikanischen Partnern nachweisbare Vorteile bringen müssen. Konkret müssen die in den Abkommen vorgesehene Handelsliberalisierung und die sonstigen Maßnahmen die nachhaltige wirtschaftliche Entwicklung der afrikanischen Partnerländer fördern, d.h. sozial inklusives und ökologisch tragbares Wachstum generieren. Die WPA sind daher zuvorderst an der Erreichung dieser Zielsetzung zu messen. Genau dies ist die Zielsetzung der vorliegenden Studie. Neben der Einschätzung der Effekte der WPA und der Untersuchung von Exportpotenzialen der afrikanischen Partner, möchte die Studie Politikempfehlungen für die EU-Entwicklungszusammenarbeit formulieren, um deren Bemühungen zu einer entwicklungsfördernden Umsetzung der WPA zu unterstützen.

In methodischer Hinsicht kombiniert die Studie quantitative mit qualitativen Ansätzen. Während die wirtschaftlichen Effekte der Handelsliberalisierung mit Hilfe von Simulationen mit dem ÖFSE Global Trade Model untersucht wurden, erfolgte die qualitative Untersuchung der Abkommen und der Umsetzungsherausforderungen in den untersuchten Regionen, Ländern und Sektoren auf Basis einer Auswertung der Abkommenstexte, der wissenschaftlichen Sekundärliteratur, statistischer Daten sowie der Feldforschung in Ghana, Mosambik und Uganda.

Die Studie beginnt mit einer Einschätzung wichtiger Bestimmung der drei untersuchten WPA – dem Abkommen mit der Südafrikanischen Entwicklungsgemeinschaft (SADC-WPA), der Westafrikanischen Wirtschaftsgemeinschaft (ECOWAS-WPA) sowie der Ostafrikanischen Gemeinschaft (EAC-WPA). Dabei liegt der Fokus auf (i) dem Marktzuwangsangebot, (ii) auf den Bestimmungen im Abkommen, die zu Einschränkungen beim wirtschaftspolitischen Handlungsspielraum führen können, sowie (iii) auf jenen Bestimmungen zur potenziellen Stärkung der Nachhaltigkeitsaspekte bei den afrikanischen Partnern. Daran anschließend werden die Auswirkungen der regionalen WPAs auf die drei Länder Mosambik, Ghana und Uganda untersucht. Dazu werden die wirtschaftlichen Effekte mit Hilfe des ÖFSE Global Trade Models jeweils abgeschätzt. Im Anschluss werden die Umsetzungsherausforderungen auf Basis von Expert/inn/eninterviews während der Feldforschung diskutiert. Die Potenziale der WPA zur Stimulierung von Exporten werden für ausgewählte Sektoren untersucht, wobei die Möglichkeiten aber auch Grenzen von Exportförderpolitiken im Kontext globaler Wertschöpfungsketten, der Strategien von deren Leitunternehmen und der lokalen Wettbewerbsverhältnisse aufgezeigt werden.

Die Fallstudien umfassen die Sektoren Baumwolle/Textilien/Bekleidung in ausgewählten SADC Ländern mit Fokus Mosambik, den Kakao sowie Mangosektor in Ghana, sowie Kaffee und Fisch in Uganda.

Die Hauptergebnisse und wichtigsten Politikempfehlungen der Studie lassen sich in den folgenden Punkten zusammenfassen:

1. Die Effekte der Handelsliberalisierung für Afrika werden negativ, aber relativ klein ausfallen

Das zentrale Charakteristikum der WPA besteht in der asymmetrischen Marktöffnung durch die afrikanischen Partner, da Exporte aus AKP-Staaten bereits einen zoll- und quotenfreien EU-Marktzugang genießen. Obschon durch lange Übergangsfristen und Ausnahmebestimmungen für sensible Güter abgeschwächt, werden die Zollreduktionen bei Industriegütern und teilweise auch bei landwirtschaftlichen Produkten zu negativen Effekten auf die Produktion und die Beschäftigung in den AKP-Partnerstaaten führen. Die ECOWAS-Region wird einen Einkommensverlust von rund 0,61% des BIP erleiden, die Effekte für die EAC- und SADC-Regionen fallen mit 0,42% und 0,20% etwas kleiner aus. Alle Wirtschaftssektoren sind von der Handelsliberalisierung betroffen, mit den relativ größten Verlusten für Industriesektoren wie zum Beispiel Maschinenbau, Chemie und andere Industriegüter. Nur einige bereits jetzt wichtige Exportsektoren in den WPA-Ländern, wie etwa Rohstoffe und Nahrungsmittel, können mit geringfügigen Exportzuwächsen in die EU rechnen.

2. Die Anpassungskosten erfordern eine politische Antwort seitens der EU

Zum einen hat Handelsliberalisierung Auswirkungen auf die Beschäftigung. Unsere Simulationen zeigen Arbeitsplatzverluste in der Größenordnung von 18.000 Jobs für SADC, 85.000 Jobs für die EAC, und 210.000 Jobs in der ECOWAS Region. Besonders Jobs in der verarbeitenden Industrie sind dabei betroffen. Zum anderen stellen Zölle in den meisten afrikanischen Ländern eine wichtige Einnahmenquelle für die öffentlichen Haushalte dar. Dies gilt besonders für die ECOWAS Region. Schätzungen bei denen die geplanten Zollsenkungen mit aktuellen Importvolumina in Bezug gesetzt werden zeigen Zolleinnahmenverluste für ECOWAS (inkl. Nigeria) von mehr als USD 600 Mio. p.a. in den Jahren 5-10 der Übergangsfrist, die bis zum Ende der Übergangsfrist auf USD 1,7 Mrd. ansteigen. Für Ghana belaufen sich die entsprechenden Werte auf ca. USD 70 Mio. p.a. und USD 225 Mio. p.a.. Die von der Handelsliberalisierung potenziell betroffenen Gruppen sind daher Arbeiter/innen in der Industrie, welche der Importkonkurrenz nicht Stand halten können, und Haushalte, die überproportional stark von Sozialtransfers und anderen Dienstleistungen aus der öffentlichen Hand, welche mit Einnahmenseinbußen durch sinkende Zölle zu rechnen hat, abhängen.

Dies verlangt nach einer politischen Antwort in dreierlei Hinsicht: Die fiskalischen Anpassungshilfen der EU müssen erstens im Zeitraum nach 2020 erheblich erhöht werden, um die zu erwartenden Einnahmenausfälle während der Übergangsfristen zumindest teilweise zu kompensieren. Zweitens werden Anpassungshilfen sowie finanzielle Unterstützung in der Übergangszeit benötigt, um Arbeiter/inn/en, die ihre Jobs verloren haben, zu helfen, neue Anstellungen zu finden. Drittens braucht es eine umgehende Stärkung der Besteuerungskapazitäten in den afrikanischen AKP-Ländern. Diese Maßnahmen sind nur mit einer Aufstockung der EU-Entwicklungszusammenarbeitsmittel zu bewerkstelligen.

3. Die nachhaltige Förderung von Exportsektoren benötigt starke Industriepolitiken für strukturelle Transformation

Um die negative Auswirkung der asymmetrischen Liberalisierung auszugleichen, braucht es eine langfristige Strategie für die Förderung und die kontinuierliche Verbesserung von Exportsektoren. Dabei sollte der Fokus auf folgenden Bereichen liegen:

- 1) Unterstützungsleistungen in den Bereichen Finanzierung, Ausbildung und technische Beratung in den Sektoren Landwirtschaft und verarbeitende Industrie sind nötig zur Förderung von Bauern und lokalen Unternehmen. Die Initiierung von Kooperationen und von Verflechtungen (*linkages*) zwischen lokalen Akteuren (Bauern, Firmen) sowie zwischen einheimischen und ausländischen Firmen kann zur Steigerung der Produktivität und zu Lernprozessen führen.
- 2) Der Aufbau effektiver öffentlicher Einrichtungen ist eine unabdingbare Voraussetzung für die Steigerung der Produktivität, für erhöhte Wertschöpfung (*upgrading*) und für die wirtschaftliche Diversifizierung.
- 3) Regionale Integration sowohl auf der Produktionsseite als auch im Hinblick auf Absatzmärkte sollte strategisch genutzt werden, um produktive Beschränkungen zu überwinden und die Verhandlungsmacht gegenüber internationalen Abnehmern zu steigern. Heimische und regionale Absatzmärkte stellen im Vergleich zu jenen hoch entwickelter Industrieländer zudem wichtige Alternativen für den Aufbau und die kontinuierliche Weiterentwicklung von Produktionsprozessen bei Produkten der Nahrungsmittel- und der verarbeitenden Industrie dar.

4. Die EU-Entwicklungszusammenarbeit muss den Aufbau von öffentlichen Kapazitäten und Kompetenzen verstärken

Mit den Maßnahmen im Bereich Handel für Entwicklung (Aid for Trade) fokussierte die EU-Entwicklungszusammenarbeit bislang auf die Bereiche Infrastrukturentwicklung und Förderung des Privatsektors. Ein Schlüsselement sowohl für die erfolgreiche Umsetzung der WPA sind jedoch auch Kapazitäten und Kompetenzen von Regierungsstellen und öffentlichen Einrichtungen. Dies betrifft sowohl das aktive Management der Abkommensmodalitäten als auch die Entwicklung der Produktivkräfte mit dem Fokus auf Innovation und strukturelle Diversifizierung. Eine beträchtliche Erhöhung der Unterstützungsleistungen für die Bereiche Handelspolitik und -regulierung sowie Handelsförderung im Kontext der einschlägigen EU-Entwicklungsprogramme unter Aid for Trade ist daher nötig.

5. Der WPA-Monitoring-Prozess muss ergebnisorientiert, inklusiv, transparent und flexibel sein

Der wirtschaftliche Erfolg und die politische Akzeptanz der WPA hängen ganz wesentlich vom Monitoring-Prozess ab. Dafür braucht es drei Elemente: (i) ein gemeinsames Verständnis über die jeweiligen Ziele des Abkommens und die zentralen Umsetzungserfordernisse aufseiten der Regierungen, des Privatsektors und der Zivilgesellschaft (inkl. der Wissenschaft); (ii) einen transparenten Monitoring- und Evaluierungsprozess auf Basis einer allgemein akzeptierten und klar definierten Methodik; (iii) die Flexibilität den Implementierungsprozess und die Abkommen in Reaktion auf veränderte wirtschaftliche und politische Bedingungen anzupassen.

Finanzielle Unterstützung der EU zur Förderung der aktiven Teilnahme der Zivilgesellschaft und zur Finanzierung von Begleitforschung, als auch, darüber hinausgehend, ein umfassendes Verständnis für die Entwicklungsherausforderungen der WPA Partnerländer sind dafür erforderlich.

1. INTRODUCTION

The European Union (EU) has concluded or currently is in the process of concluding Economic Partnership Agreements (EPAs) with the group of African, Caribbean and Pacific (ACP) countries. Representing the economic pillar of the framework Cotonou Agreement between the ACP countries and the EU as well as its member states, the EPAs mark the beginning of a new era in the economic relations between the EU and the ACP countries. Instead of the unilateral approach prevalent until the Lomé Agreements, in which the EU granted one-sided preferences to all ACP countries, the EPAs are bi-regional reciprocal agreements committing both parties. Unsurprisingly, the negotiations on the EPAs have thus proved challenging and highly controversial. It typically took ten or more years to conclude negotiations, with ratification of agreements still pending in some countries at the time of writing this report. The EPAs which are in the focus of this study are what could be termed new generation North-South trade agreements, involving with the EU an economically highly advanced group of countries on the one hand, and on the other hand a large number of African countries that dispose of rather fragile and structurally dependent economies, governed by mostly weak governments characterized by a lack of institutional capacities.

The EPAs and the challenge of their implementation are therefore a highly charged political project. It is well understood that the EPAs must deliver tangible benefits to the African partners. Thus, the trade liberalization and further regulations and reforms facilitated by the agreements must trigger sustainable economic development for the African partner countries, i.e. economic growth that is socially inclusive and respects ecological boundaries. EPAs are therefore primarily to be judged against this yardstick, which is the approach adopted in this study.

The report starts with an assessment of the main provisions of three EPAs – the South African Development Community EPA (SADC-EPA), the Economic Community of West African States EPA (ECOWAS-EPA) and the East African Community EPA (EAC-EPA) – in section 2, thereby focusing on the market access offer and the provisions in the agreement which potentially reduce the developmental policy space as well as offer a potential to strengthen sustainability aspects in African partner countries. Section 3, 4 and 5 analyze the implications of the three specific EPAs with a focus on Mozambique, Ghana and Uganda respectively. They all start with a short overview of the economies of Mozambique, Ghana and Uganda, before providing an assessment of the economic impact of the three regional EPAs on Mozambique, Ghana and Uganda, by simulations with the ÖFSE Global Trade Model. Based on interviews with stakeholders and field research in the three countries, implementation challenges associated with the agreements are detailed. Further, different sectoral case studies are analyzed in order to show the potential of the EPAs on the export side, highlighting the opportunities and challenges for export promotion policies in the context of global value chains and related lead firm strategies as well as local competitiveness conditions. The five sectoral case studies include the cotton, textile and apparel sectors in selected SADC countries with a focus on Mozambique, the cocoa and fruit/mango sectors in Ghana, and the coffee and fish sectors in Uganda.

Section 6 provides a summary of the main findings and proposes key policy recommendations in the areas of trade-related adjustment costs, capacity building in the public and private sector, productive development promotion in the context of GVCs and design of effective monitoring processes.

The methodological approach of this report combines both quantitative and qualitative methods. While the economic assessment is based on simulations with the ÖFSE Global Trade Model, a structuralist Computable General Equilibrium model, the qualitative analysis on the agreement and its implementation challenges as well as the case study draw on text and data analysis, a literature review and field research in Ghana, Mozambique and Uganda. The interviews were conducted with diverse actors from the government, the private sector and civil society, and complement other data sources used throughout the report (see a list of interviewees in Appendix I).

2. ASSESSMENT OF KEY CONTENTS OF THE EPAS

2.1. The impact of EPAs in the context of EU trade relations

The EPAs are an asymmetrical trade agreement in which the European Union (EU) offers to fully liberalize trade in goods and the EPA countries agree to open up their economies partially in order to liberalize ‘substantially all trade’ in accordance with rules by the World Trade Organization (WTO).¹ The tariff liberalization in EPA countries vis-à-vis the EU directly impacts exports of the EU into the region. The direct impact of trade preferences offered by the EU vis-à-vis EPA countries, on the other hand, depends on already existing unilaterally provided trade preferences of the respective countries. Least developed countries (LDCs) along UN classification qualify for Everything But Arms (EBA), their exports in the EU would thus also be duty-free-quota-free (DFQF) without an EPA. Countries that are not classified as LDCs and have not yet achieved high or upper middle income status according to World Bank classifications only qualify for the General System of Preferences (GSP) or its extension (GSP+). In general, GSP offers a 3.5 percentage point reduction of the MFN tariff for two thirds of tariff lines (in addition, various special rules apply) and GSP+ enhances preferences to DFQF access for products covered by GSP after countries have ratified core international conventions related to human and labor rights, environmental standards and good governance.

The introduction of an EPA will therefore only improve or maintain market access to the EU of non-LDC countries since the DFQF access of LDCs to the EU market remains unchanged.² The EPA, however, secures preferential market access in the long term, in particular in case of a loss of LDC status or a change of the unilaterally granted market access of EBA. In most cases, there will also be no immediate effect on exports of non-LDCs after the ratification of an EPA, since most non-LDCs have unilaterally been granted DFQF access by the EU within the framework of the Market Access Regulation (MAR) since the end of 2007 in the context of the ongoing negotiations and the signature of interim EPAs (iEPAs).³ MAR has been withdrawn for countries that do not negotiate or plan to ratify an EPA.

In the following, we discuss the different market access offers in the SADC-EPA, ECO-WAS-EPA and EAC-EPA as well as the trade relations of the respective regions with the EU.

2.1.1. SADC-EPA: market access offer and trade relations

After the signature of iEPAs in 2007, negotiations on the regional SADC-EPA were finalized in 2014 between the EU and its 28 member states on the one side and Botswana, Lesotho, Namibia, Swaziland (BLNS), South Africa and Mozambique on the other side. Angola is currently not part of the SADC-EPA group of countries but has the option to join

¹ The European Union (EU) generally considers a trade agreement to be WTO compatible when 90% of bilateral trade in volume or 90% of tariff lines are fully liberalized (Fontagné et al. 2010). This allows however for asymmetry in the opening as the EU can for instance offer fully liberalized market access, while the EPA partners open up 80% of their incoming trade with the EU (European Parliament 2016). The EU interpretation of Art XXIV.8 of GATT has not remained uncontested. In fact, quantitative thresholds for removing duties on “substantially all the trade” between the partners to a free trade area have been fixed neither by WTO law nor jurisprudence. Alternative interpretations hence arrive at considerably lower quantitative thresholds. For the case of the EPAs, a 60% threshold has been suggested as being compatible with the requirement of Article XXIV.8, given that the EU requires a 100% threshold for its imports (Diouf 2009).

² However, other regulations, such as Rules of Origin, do change.

³ See Council Regulation (EC) No 1528/2007, Regulation (EU) No 527/2013 as well as Commission delegated Regulation (EU) No 1025/2014.

later. In June 2016, the SADC-EPA was signed and the ratification process initiated. The SADC-EPA has been provisionally applied⁴ since the 10th of October 2016.⁵ As the last SADC-EPA member state, Mozambique ratified the agreement in April 2017.

The specific member composition of the SADC-EPA has its roots in the multifaceted economic integration processes in Sub-Sahara Africa (SSA). With the exception of Mozambique (and Angola), all members of the SADC-EPA are part of the South African Customs Union (SACU). Furthermore, all members of the SADC-EPA are part of SADC, but only about half of all SADC member states are part of the SADC-EPA. Instead, most other SADC members are part of the Eastern and Southern African-EPA (ESA-EPA), which overlaps with membership in the Common Market for Eastern and Southern Africa (COMESA). Mozambique and Lesotho⁶ are LDCs and would benefit from EBA. Swaziland is a non-LDC and would have to trade under GSP without an EPA. South Africa, Botswana and Namibia would not qualify for GSP.

The SADC-EPA primarily affects trade in goods. Trade in services, investment, public procurement, competition law, intellectual property rights and other topics might be negotiated in the future.⁷ The EU offers DFQF access to the EU markets for Botswana, Mozambique, Lesotho, Namibia and Swaziland (BMLNS) with the exception of arms and ammunition (Table 1). South Africa is subject to differentiated treatment within the SADC-EPA due to its economic power as well as the Trade, Development and Cooperation Agreement (TDCA), a free-trade agreement (FTA) between the EU and South Africa signed in 1999, which has for the larger part been replaced by the SADC-EPA. The EU offers to remove tariffs on around 95% of tariff lines on imports from South Africa into the EU but includes tariff rate quotas (TRQ) on various products⁸ (Table 1).

The SACU-members (Botswana, Lesotho, Namibia, South Africa and Swaziland), on the other hand, will fully liberalize around 85% of their tariff lines for EU imports, which translates to 74.1% of trade in 2015.⁹ The partial reduction of tariffs (TRQs)¹⁰ of the SACU-group affects around 12% of the trade volume with the EU (Berends 2017). For Mozambique, the number of tariff lines listed in the tariff schedule of the agreement are equivalent to roughly 40% of total HS product lines. This represents nevertheless around 75% of trade volume with the EU, while the remaining tariff lines, representing 25% of the trade volume, are excluded from trade liberalization. This is the lowest level of import liberalization within the SADC-EPA. Tariffs of the SADC-EPA countries are to be phased out within 10 years, however, 97% of all tariff lines included in the liberalization schedule are set to zero already within five years. Key goods exempted from tariff liberalization in the SACU and Mozambique schedule include agricultural (e.g. various meat, dairy, cereal and vegetable products) and country specific manufactured goods (e.g. motor vehicles as well as textiles and apparel).

⁴ The development cooperation of the EU member states is excluded from the provisional application, since it would require the ratification of the EPA in the national parliaments of the EU member states.

⁵ See Council Decision (EU) 2016/1623 as well as OJ L 274, 11.10.2016.

⁶ Lesotho could lose its LDC status in the near future.

⁷ See SADC-EPA, Article 16, 17, 18, 73, 74

⁸ This includes wine, sugar, ethanol, various dairy products, flowers and various fruit products.

⁹ The actual impact of the EPA induced tariff liberalization depends on how open the tariff regime of a specific country has been before the implementation of the EPA. The shares of tariff lines currently set to zero are indicated in the tables below.

¹⁰ TRQs are implemented for wheat, barley, various dairy products, pork and others.

Table 1: SADC-EPA – degree of trade liberalization (%)

	Tariff lines	Trade volume
EU offer to South Africa		
Full liberalization	94.9	96.0
Partial liberalization	3.2	2.7
Excluded	1.9	1.3
SACU offer to EU		
Full liberalization	84.9	74.1
Partial liberalization	12.9	12.1
Excluded	2.2	13.8
Mozambique offer to EU*		
Full liberalization	39.5	73.6
Set to zero before EPA**	~ 10	~ 20
Partial liberalization	0.0	0.0
Excluded	60.5	26.4

Note: Trade data 2015; * Calculation based on tariff lines listed in the SADC-EPA agreement; **tariff lines in liberalization category A in the SADC-EPA Agreement
Source: Berends 2017; SADC-EPA; UN Comtrade 2017

The EU is the most important trading partner of the SADC-EPA region, around 29% of its external trade is conducted with the EU, followed by China (14%), the US (7%) and India (6%) (Table 2). The SADC-EPA region trade data with the EU mostly reflects trade relations with South Africa due to its economic size. Total trade between the SADC-EPA region and the EU amounted for EUR 50.1 billion in 2015, but has decreased in absolute and relative terms in recent years (Table 3). The by far most important export goods of the SADC-EPA region are precious metals (e.g. gold, diamonds and platinum), other raw materials (base metals and mineral products) and agricultural products (e.g. sugar, tobacco and fruits) (Table 4). Machinery and electrical equipment, transportation goods and products of the chemical industry, in particular pharmaceuticals, are the most important goods imported from the EU. All in all, there is a strong dominance of primary product exports to the EU as well as industrial good imports from the EU. An important exception in this regard is South Africa due to its larger sized industrial sector.

Table 2: Top trading partners of the SADC-EPA-region (2014, % share)

	Imports	Exports	Total
EU 28	30.2	27.3	28.9
China	18.7	9.0	14.4
USA	6.6	8.3	7.4
India	5.2	6.5	5.7

Note: Botswana, Lesotho, Swaziland, Namibia, South Africa and Mozambique
Source: UN Comtrade 2017

Table 3: EU-SADC-EPA-region trade (2015, EUR)

	EU-Imports	EU-Exports	Total	Balance
EU-SADC trade (million)	23,297	26,770	50,067	3,473
% share of EU trade	1.4	1.5		
% growth rate 2014-2015	1.0	1.1		
% average growth rate 2011-2015	-4.1	-0.7		

Note: Botswana, Lesotho, Swaziland, Namibia, South Africa and Mozambique
Source: Eurostat 2016

Table 4: Top export and import sections between the EU and the SADC-EPA-region (2015, EUR, HS section)

EU-SADC – top import sections	million	%-Import
XIV – Pearls, precious metals, etc.	7,566	32.5
XVII – Vehicles, aircraft, vessels and associated transport equipment	3,115	13.4
XV – Base metals and articles of base metal	2,996	12.9
V – Mineral products	2,704	11.6
II – Vegetable products	1,808	7.8
EU-SADC – top export sections	million	%-Export
XVI – Machinery, electrical equipment etc.	8,596	32.1
XVII – Vehicles, aircraft, vessels and associated transport equipment	5,513	20.6
VI – Products of the chemical or allied industries	3,702	13.8
XV – Base metals and articles of base metal	1,364	5.1
VII – Plastics and articles thereof; rubber and articles thereof	1,272	4.8

Note: Botswana, Lesotho, Swaziland, Namibia, South Africa and Mozambique
Source: Eurostat 2016

2.1.2. ECOWAS-EPA: market access offer and trade relations

Negotiations on the regional ECOWAS-EPA were finalized in 2014 between the EU and its member states on the one side and the ECOWAS and its 15 member states plus Mauritania as well as the African Economic and Monetary Union (UEMOA) on the other side. The ECOWAS-EPA group of countries is a relatively homogenous group with regard to their economic integration compared to the other SSA EPA groups. Currently, twelve out of 16 countries are LDCs and qualify for EBA. Ghana, Côte d'Ivoire, Nigeria and Cap Verde do not have LDC status and would have to trade under GSP and in the case of Cap Verde under GSP+ without an EPA. Until today, the signatures of Nigeria, Gambia and Mauritania are still pending. Ghana and Côte d'Ivoire have signed individual iEPAs in late 2007 and ratified them in mid-2016. Nigeria and Cap Verde currently trade with the EU under GSP respectively GSP+.

The ECOWAS-EPA affects trade in goods, however, trade in services, investment, intellectual property rights, etc. might be negotiated in the future in accordance with the rendezvous clause.¹¹ The EU offers DFQF access to the EU markets for the 15 ECOWAS member states plus Mauritania with the exception of arms and ammunition. The ECOWAS region offers to include 74.9% of tariff lines and 82.3% of trade volume in the market access offer. The common external tariff (CET) will be progressively reduced within 20 years after the agreement enters into force. The EPA will effectively reduce tariff lines affecting

¹¹ ECOWAS-EPA, Article 106

53.8% of trade volume with the EU since 1.4% of tariff lines with a trade volume of 28.5% are already set to zero (Table 5).

Table 5: ECOWAS-EPA – degree of trade liberalization (%)

	Tariff lines	Trade volume
Full liberalization	74.9	82.3
Set to zero before EPA	1.4%	28.5%
Excluded	25.1	17.6

Note: % of trade volume 2012-2014;
Source: ECOWAS-EPA, UN Comtrade, own calculations

The EU is the most important trading partner of the ECOWAS-EPA region, around 30% of its external trade is conducted with the EU, followed by China (18%), India (10%) and the US (5%) (Table 6). The ECOWAS-EPA region trade data with the EU mostly reflects trade relations with Nigeria, Ghana and Côte d'Ivoire due to their economic size. Total trade between the ECOWAS-EPA region and the EU amounted for EUR 45 billion in 2016, but has been decreasing significantly in recent years (Table 7). The by far most important export good of the ECOWAS-region are mineral products (56%), especially crude petroleum, followed by prepared foodstuffs (e.g. processed tuna and cocoa) and agricultural products (Table 8). Mineral products, in particular refined petroleum, as well as machinery and appliances, products of the chemical and allied industries and transport equipment are the key goods imported from the EU. Overall, there is a strong dominance of primary product exports to the EU (94%) as well as primary (46%) and manufacturing goods (53%) imports from the EU (EC DG Trade 2017).

Table 6: Top trading partners of the ECOWAS-EPA-region (2015, % share)

	Imports	Exports	Total
EU 28	26.5	34.6	29.5
China	25.9	5.1	18.0
India	4.5	18.2	9.7
USA	5.3	4.0	4.8

Source: EC DG Trade 2017

Table 7: EU-ECOWAS-EPA-region trade (2016, EUR)

	EU-Imports	EU-Exports	Total	Balance
EU-ECOWAS trade (million)	20,422	24,910	45,331	4,488
% share of EU trade	1.2	1.4	1.3	
% growth rate 2015-2016	-28.2	-14.3		
% average growth rate 2011-2015	-16.7	-3.6		

Source: EC DG Trade 2017

Table 8: Top export and import sections between the EU and the ECOWAS-EPA-region (2016, EUR, HS section)

EU-ECOWAS – top import sections	million	%-Import
V – Mineral products	11,428	56.0
IV – Foodstuffs, beverages, tobacco	5,667	27.8
II – Vegetable products	835	4.1
I – Live animals, animal products	511	2.5
VII – Plastics, rubber and articles thereof	369	1.8
EU-ECOWAS – top export sections	million	%-Export
V – Mineral products	7,364	29.6
XVI – Machinery and appliances	4,559	18.3
VI – Products of the chemical or allied industries	2,832	11.4
XVII – Transport equipment	1,971	7.9
IV – Foodstuffs, beverages, tobacco	1,710	6.9

Source: EC DG Trade 2017

2.1.1. EAC-EPA: market access offer and trade relations

Negotiations on the regional EAC-EPA were finalized in 2014 between the EU and its member states on the one side and the EAC and its member states, Burundi, Kenya, Rwanda, Uganda and Tanzania, on the other side. Kenya is the only non-LDC in the EAC-EPA group. Until 2016, the EAC-EPA would have been the only agreement in which the EPA grouping corresponds to a regional organization. With the entry of South Sudan as a full member to the EAC in 2016, this is not the case anymore.¹²

So far, the EAC-EPA has been signed by Kenya and Rwanda individually and ratified by Kenya in September 2016. There is currently a loose consensus among the four remaining EAC member to sign the agreement as a group only.

The EU offers DFQF access to the EU markets for the EAC-EPA group of countries with the exception of arms and ammunition. The EAC-EPA region offers to liberalize 73.7% of tariff lines and 82.6% of trade volume in the market access offer. The tariff lines will be progressively reduced within 25 years after the agreement enters into force. The EPA will effectively reduce tariff lines affecting only 17.9% of trade volume with the EU since 35.6% of tariff lines with a trade volume of 64.7% are already set to zero (Table 9).

Table 9: EAC-EPA – degree of trade liberalization (%)

	Tariff lines	Trade volume
Full liberalization	73.7	82.6
Set to zero before EPA	35.6	64.7
Excluded	26.3	17.4

Note: % of trade volume 2012-2014;

Source: ECOWAS-EPA, UN Comtrade own calculations

China is the most important trading partner of the EAC-EPA region, around 25% of its external trade is conducted with the China, followed by the EU (15.2%) and India (14.1%). The EU is, however, by far the most important export market of the EAC-EPA region (25% of total exports). Total trade between the EAC-EPA region and the EU amounted for EUR

¹² New EAC member state can accede to the EPA automatically or by an act of accession (EAC-EPA Article 144).

6 billion in 2016 and has increased steadily in recent years with the exception of the 2015/16 period (Table 11). Over 90% of total exports to the EU are primary products (EC DG Trade 2017). The by far most important export goods of the EAC-EPA region are vegetable products (63%), including coffee, tea and beans (Table 12). The EU, on the other hand, exports mainly manufactures to the EAC-EPA region (82%). Machineries and appliances (28%), products of the chemical and allied industries (20%) as well as transport equipment (16%) are the most important products imported from the EU.

Table 10: Top trading partners of the EAC-EPA-region (2015, % share)

	Imports	Exports	Total
China	30.6	5.1	25.1
EU 28	12.6	24.6	15.2
India	15.2	9.8	14.1
United Arab Emirates	6.8	5.4	6.5

Source: EC DG Trade 2017

Table 11: EU-EAC-EPA-region trade (2016, EUR)

	EU-Imports	EU-Exports	Total	Balance
EU-EAC trade (million)	2,437	3,864	6,301	1,427
% share of EU trade	0.1	0.2	0.2	
% growth rate 2015-2016	-7.2	-4.5		
% average growth rate 2011-2015	2.5	1.1		

Source: EC DG Trade 2017

Table 12: Top export and import sections between the EU and the EAC-EPA-region (2016, EUR, HS section)

EU-EAC – top import sections	million	%-Import
II – Vegetable products	1,539	63.1
IV – Foodstuffs, beverages, tobacco	393	16.1
I – Live animals, animal products	154	6.3
XIV – Pearls, precious metals and articles thereof	108	4.4
V – Mineral products	75	3.1
EU-EAC – top export sections	million	%-Export
XVI – Machinery and appliances	1,097	28.4
VI – Products of the chemical or allied industries	760	19.7
XVII – Transport equipment	601	15.6
II – Vegetable products	220	5.7
IV – Foodstuffs, beverages, tobacco	186	4.8

Source: EC DG Trade 2017

2.2. Policy space: key issues

International trade agreements have the general purpose of creating a common ground for trade between partner countries. This necessarily disciplines the national policy space which refers to “the scope for domestic policies, especially in the areas of trade, investment and industrial development” (UNCTAD 2004). Modern trade agreements are typically comprehensive including various clauses and provisions that influence domestic policy space to a larger extent than traditional trade agreements focusing on tariff reductions only. In the case of developing countries, this might limit the use of effective instruments for development strategies, particularly for pursuing industrial policies to develop productive capacities and support diversification and structural change. The EPAs include various rules that may potentially limit the policy space of EPA member states in detrimental ways from a development-oriented perspective. The EPAs however also include exceptions that create room for manoeuvre. In addition, matters such as trade in services, investment and public procurement are currently not part of the EPAs. The extent and conditions related to the exceptions however differ in the regional EPAs and their actual application is strongly related to the existence of capacities at the government level in the single EPA countries. In the following, we will scrutinize the effect of specific relevant EPA provisions on the policy space of EPA partners.

Standstill clause

WTO compatibility does not require the inclusion of a standstill clause (Bartels 2008). The EPAs nonetheless include a standstill clause¹³, which prohibits the future increase of once liberalized tariffs, with the exception of the application of safeguard mechanisms. In the case of partial tariff reductions, as in the case of SACU’s liberalization schedule, the margin of preference relative to the applied MFN rate of duty shall be maintained.¹⁴ The standstill clause is a crucial element in ‘locking in’ tariff liberalization in the ACP region and hence reduces policy space beyond WTO requirements. While the standstill clause will increase the predictability of the tariff schedule, a higher flexibility would have improved room for maneuver, e.g. in case a change of the trade regime is necessary to reinforce an industrial policy strategy. The range of sensitive products excluded from tariff liberalization in the EPAs, in particular within the agricultural sector, as well as safeguard clauses, however, have the potential to mitigate potential negative effects of the standstill clause.

The ECOWAS- and EAC-EPA countries also have the possibility to modify the level of customs duties applied to products originating from the EU after the EPA agreements entered into force in the case of regional integration processes (EAC) and special developmental needs (ECOWAS) in accordance with the EU.¹⁵ Article 12 of the ECOWAS-EPA specifically states that such modifications are possible for the West African region “[...] *in view of its special development needs, in particular the need to support its common sectoral policies [...]*” after agreement with the Joint Council of the EPA. The changes shall, only be maintained for the period necessary to meet the development needs of West Africa. It is however unclear upon which mutually accepted criteria the length of such period shall be determined. This runs the risk of premature termination of such periods in case of divergent views between EPA partners. The SADC-EPA includes a similar stipulation.

¹³ ECOWAS-EPA: Article 9; EAC-EPA: Article 12; SADC-EPA: Article 23

¹⁴ SADC-EPA: Article 23(7)

¹⁵ ECOWAS-EPA: Article 12; EAC-EPA: Article 12(2)

MFN clause

The EPAs also incorporate a MFN clause¹⁶, which aims to extend any more favorable treatment of preferential trade agreements with third parties to the signatories of the EPAs. The MFN clause of the ACP-EPA countries is limited in scope, since the extension to the EU of more favorable treatment to third parties excludes regional preferences¹⁷ and is only to be granted in case of an FTA between ACP-EPA states and ‘major trading partners’. The definition of major trading partners varies between the agreements, but generally refers to a country (or group of countries) with a specific share of world merchandise exports (e.g. 1% or 1.5% respectively in the case of the SADC-EPA) as well as a specific industrialization rate (ECOWAS-EPA).¹⁸ The MFN clause thus implicitly targets FTAs between the ACP-EPA states and semi-peripheral countries, such as Brazil and China. The EU could thus benefit from the MFN clause in case of future FTAs between EPA states and other ‘major trading partners’ that incorporate an extended market access offer. For the ACP-EPA countries, on the other hand, the inclusion of the MFN clause has no benefit since they already receive DFQF access to the EU market. Furthermore, the policy space to negotiate as well as the interest of ‘major trading partners’ to conclude a FTA with ACP-EPA states might be reduced (ECDPM 2014; Bilal/Ramdoos 2010) since the EU would receive similar trade preferences and thus erode potential trade preferences for potential partners.

National treatment: local content rules, government procurement and subsidies

National treatment provisions in the EPAs oblige the signing parties to treat imported products no less favorable than like products of national origin.¹⁹ The principle thus aims at establishing an environment in which imported products compete on equal terms with domestic products. The national treatment provision has important exemptions, including government procurement and subsidies. The national treatment clause thus does not hinder the ability of the government to privilege domestic over imported products in its procurement contracts or the payment of subsidies exclusively to domestic producers.²⁰ The EU, however, is forbidden to use export subsidies for agricultural products exported to the EPA countries, at least for a specified time period.²¹

The EPAs currently do not include prohibitions on local content regulations that go beyond WTO commitments. The scope of the commitments is also constrained by the fact that investment is not covered by the EPA agreements as of now, but relegated to future negotiations under the rendez-vous clause (Ramdoos 2016).²² Local content rules, though largely disciplined by WTO provisions are still extensively applied by many developing countries including ACP countries, (see lists of applied measures in Ramdoos 2016: 5-8). Local content rules have the potential to increase procurement from local suppliers and thus improve local linkages, e.g. between foreign owned and local firms, as well as stimulate local input provision and processing activities. Local content legislation is of particular importance for resource dependent countries that do little processing and mainly export raw materials. EPA countries have struggled to promote their industrialization process and increase local value added as well as establish linkages particularly between foreign and

¹⁶ ECOWAS-EPA: Article 16, EAC-EPA: Article 15; SADC-EPA: Article 28

¹⁷ ECOWAS-EPA: Article 103; EAC-EPA: Article 4; SADC-EPA: Article 108

¹⁸ Article 28 of the SADC-EPA includes derogations with regard to the role of South Africa as well as LDC states.

¹⁹ ECOWAS-EPA: Article 35; EAC-EPA: 20; SADC-EPA: Article 40

²⁰ ECOWAS-EPA: Article 35(4-5); EAC-EPA: 20(4-5); SADC-EPA: Article 40(6-7)

²¹ ECOWAS-EPA: Article 48(6); EAC-EPA: Article 68(2); SADC-EPA: Article 68(2)

²² ECOWAS-EPA: Article 35(2-3); EAC-EPA: Article 20(3-4); SADC-EPA: Article 40(3-4)

local firms. In combination with support to increase the competitiveness and ensure upgrading of local suppliers, local content policies can be effective in this regard. EPA countries will thus face sensitive decisions in the event that negotiations on an investment chapter will commence as part of the rendez-vous clause.

Export duties and taxes

Export duties and taxes can be an important tool of developing countries in order to create government revenue by means of resource exportation, encourage processing of primary goods and assure food safety (Asche 2015: 17; Bilal/Stevens 2009: 70ff.). The EU is interested in curbing or prohibiting export duties and taxes in order to ensure an unrestricted access to raw materials (Bilal/Stevens 2009: 70f.).

The EPAs do not allow the implementation “[...] of any new duties or taxes in connection with the exportation of goods [...] that are in excess of those imposed on like products destined for internal sale” (EAC-EPA: Article 14:1).²³ However, the EPA states²⁴ may in ‘exceptional circumstances’²⁵ apply export duties or taxes for a limited period of time. There are differences with regard to the exact definition of ‘exceptional circumstances’ within the three EPAs, but they generally refer to the (a) creation of revenue, (b) promotion of infant industries (despite missing definition of infant industries) and (c) environmental protection. The EAC- and SADC-EPA also allow for export duties and taxes in the case of food security. The ECOWAS-EPA thus has the most restrictive clause on export duties and taxes, but the ECOWAS- and SADC-EPA also include a review clause and thus the potential for renegotiation of the article in the future.

Despite the inclusion of exceptions to the prohibition of export duties and taxes, the EPA states will need to defend their application and various fields of application will be unfeasible or restricted timewise. Limitations on export duties and taxes are particularly problematic in case of resource-dependent countries, since export taxes on primary products can incentivize local processing and thus have the potential to promote the industrialization process in the context of broader industrial policy measures. It remains to be seen in how far various applications will be possible for ACP countries in the given exceptions, but new export duties will hardly be applicable as a regular fiscal instrument.

Safeguard mechanism

Safeguard measures are essential in order to protect the EPA states from potential negative effects due to tariff liberalization (e.g. import surges, industry displacement, food security issues, etc.). The ECOWAS-, EAC- and SADC-EPA include anti-dumping and countervailing, multilateral, bilateral and infant industry measures.²⁶ Protectionist measures are also allowed in case of balance of payments difficulties in accordance with WTO and IMF agreements.²⁷ The SADC-EPA furthermore includes more explicit safeguards on food security and agricultural issues as well as transitional safeguards for the BLNS group of

²³ ECOWAS-EPA: Article 13; EAC-EPA: Article 14; SADC-EPA: Article 26

²⁴ With the partial exception of South Africa. Article 26 in the SADC-EPA includes two different key paragraphs, one of which excludes (cf. 2) and one includes South Africa (cf. 3). Paragraph 2 is similar to the ECOWAS- and EAC-EPA provisions. Paragraph 3 can be applied in case of industrial development needs and is limited to a period of twelve years with the possibility of extension in agreement with the EU.

²⁵ The EAC-EPA does not use the term ‘exceptional’.

²⁶ ECOWAS-EPA: Chapter II, Articles 20, 21, 22, 23; EAC-EPA: Title VI, Articles 48, 49, 50; SADC-EPA: Chapter II, Articles 32, 33, 34, 38

²⁷ ECOWAS-EPA: Article 89; EAC-EPA: Article 131; SADC-EPA: Article 71

countries.²⁸ The EPAs also include a safeguard clause for the EU in case of sugar price disturbances.²⁹

In order to implement safeguard measures, the EPA governments need to start consultations with the appointed council³⁰ and provide them with the relevant information. In practice, this means that the governments need to demonstrate a link between the EPA, in particular due to increased imports and economic problems. This is particularly difficult for LDCs, since they often lack the institutional capacity as well as capabilities (e.g. data availability, institutional links, monitoring, evaluation, etc.) to fulfil the necessary activities in order to make use of and benefit from the policy space provided in the safeguard measures.

The concrete impact of the safeguard mechanisms also highly depends on the power relations within the relevant institutions. In most safeguard articles, the decision whether or not specific incidents for the application of a safeguard measure are substantial enough, or whether or not the causal link between the EPA and an incident is sufficiently proven, lie in the hands of the appointed councils. The decisions of the EPA councils – equally manned by the EU and the EPA countries – need to be consensual.³¹ The implementation of safeguard measures can therefore be blocked by the EU and would be subject to mediation/arbitration in case of disputes.³² Unilateral application of safeguard measures is only allowed on a provisional basis.³³ The implementation of safeguard measures by the EPA governments thus depends not only on their financial resources as well as their capacity and capabilities, but to some extent also on the ‘good will’ and ‘developmental perspective’ of the relevant EU institutions and their relative autonomy vis-à-vis affected business interests in the EU. In order to do justice to the developmental character of the EPAs, the EU should not only appoint officials to the EPA councils with competences in trade law, but also with knowledge of the developmental needs of the ACP countries.

The EPAs allow the application of multilateral WTO safeguards, including the safeguards on agriculture of Article 5 of the WTO Agreement on Agriculture.³⁴ The EU has agreed to abstain from using these safeguards for a period of five years after the entry into force of the Agreements (with the potential for extension). The multilateral safeguards are not subject to the dispute settlement procedures of the EPA.

In case of increased imports after tariff liberalization, the bilateral safeguards³⁵ aim to prohibit (i) serious injury to the domestic industry producing competing³⁶ products, (ii) disturbances in a sector of the economy producing competing products (in particular in case of major social problems) and (iii) disturbances in the markets of competing agricultural products via the product specific (a) suspension of further tariff reduction, (b) increase of tariffs up to MFN levels, and (c) the introduction of tariff quotas. The bilateral safeguard measures are, in the case of the EPA states, limited to a period of 4 years with the potential of a 4 year extension.³⁷ After the expiry of the bilateral safeguard on specific products, no new

²⁸ SADC-EPA: Articles 35, 36, 37

²⁹ EAC-EPA: Annex 1(2-3); SADC-EPA: Annex 1, Part III(1)

³⁰ ECOWAS-EPA: Joint Implementation Committee under the Joint Council of the West Africa – European EPA; EAC: Committee of Senior Officials under the EPA Council; SADC: Trade and Development Committee under the Joint Council

³¹ ECOWAS-EPA: Article 94(4); EAC-EPA: Article 105(2); SADC-EPA: Article 102(2)

³² ECOWAS-EPA: Article 65ff.; EAC-EPA: Article 110ff.; SADC-EPA: Article 77ff.

³³ For example, bilateral safeguards can be implemented unilaterally for a short period of time in case of emergency.

³⁴ ECOWAS-EPA: Article 21; EAC-EPA: Article 49; SADC-EPA: Article 33

³⁵ ECOWAS-EPA: Article 22; EAC-EPA: Article 50; SADC-EPA: Article 34

³⁶ ‘Like or directly competitive products’ (ibid.).

³⁷ Bilateral safeguards for the EU are limited to a 2 plus 2-year period in the EAC- and SADC-EPA.

safeguards shall be applied on this product for a period of one year – except in ‘exceptional circumstances’ in the case of the ECOWAS-EPA.

Infant industry measures³⁸ have historically had the potential to assist the development of new and existing firms and industries. The infant industry clause of the EPAs only allows for tariff increases up to MFN levels. A derogation of the MFN-ceiling provision only exists in the case of SACU members (except South Africa).³⁹ The infant industry clause, however, leaves room for interpretation, since ‘infant industries’ are currently not defined. The definitions of the articles also only permit the implementation of safeguard measures as a reaction to increased imports of products originating in the EU:

“The West Africa Party may temporarily suspend the reduction in the rate of customs duty or raise the rate of customs duty to a level not exceeding that of the duty applied to the other Members of the WTO if a product originating in the European Union, following a reduction in the rate of customs duty, is imported into its territory in quantities increased to such an amount and under such conditions that it poses a threat to the establishment of a fledgling industry or causes or threatens to cause disruption in a fledgling industry producing similar or directly competing products.” (ECOWAS-EPA: Article 23(1))

This definition could be problematic, since the protection of a newly established or existing industry might also be necessary in cases where the imports from the EU have not increased after tariff reductions. The infant industry clause might thus not be sufficient to support industrial development in EPA countries, as has been criticized by various civil society organizations and research institutions during the negotiation process (e.g. Bilal/Stevens 2009; Oxfam 2007).⁴⁰ Furthermore, as in the case of other safeguard articles, if the protectionist measure is to be granted in the first place depends on the EPA-countries capacities and capabilities to demonstrate a link between the EPA and problems of an infant industry. It also remains unclear how easy or difficult the application of the infant industry measures in the case of a so far non-existing, but to be established industry will be for which no negative effect can be shown as the industry is just emerging. Historically, due to the rigid nature of infant industry clauses, developing countries often relied on the balance of payments clause in order to support infant industries (Chang 2004).

Additionally, the three EPAs reveal an important difference with regard to the scope of the infant industry clause. The ECOWAS- and SADC-EPA have a distinct infant industry clause, which allows for infant industry protection of up to 8 years and an undefined potential further extension by the appointed EPA councils. The EAC-EPA infant industry clause is subsumed in the bilateral safeguard clause and, most importantly, includes a sunset clause.⁴¹ Infant industry measures are thus only applicable for a period of 10 to 15 years from the date of entry into force of the agreement, which crucially limits the policy space of the EAC states in the long term.

The SADC-EPA includes, unlike the ECOWAS- and EAC-EPA, separate safeguard clauses on agriculture (in SACU) and food security (in SADC) as well as transitional safeguards (in BLNS).⁴² The agricultural safeguard allows for a one year increase in tariffs on certain agricultural products⁴³ in case EU imports into SACU exceed a specific reference

³⁸ ECOWAS-EPA: Article 23; EAC-EPA: Article 50(5b); SADC-EPA: Article 38

³⁹ SADC-EPA: Article 38(1-2)

⁴⁰ There were, however, small concessions by the EU, such as the partial removal of the sunset clause as well as prolonged time periods.

⁴¹ EAC-EPA: Article 50(5b)

⁴² SADC-EPA: Articles 35, 36, 37

⁴³ See SADC-EPA: Annex IV

quantity. The provision, however, is limited to a twelve-year period from the date of entry into force of this agreement. The food security safeguard can be considered as an extension of the bilateral safeguard and specifically acknowledges the potential threat of trade liberalization on food security. The BLNS transitional safeguard can also only be applied for a period of 12 years and, like the agricultural safeguard, includes a list of products⁴⁴ that might be protected in the case of imports from the EU enter “[...] in such increased quantities as to cause or threaten to cause serious injury in any BLNS State [...]” (SADC-EPA: Article 37(2)). The transitional safeguard is a compromise with the BLNS group in the context of a common tariff schedule with South Africa (SACU) (Ramdoo 2014: vi).

2.3. Rules of Origin

Rules of Origin (RoO) of preferential FTAs define whether or not a product qualifies to obtain ‘originating status’ and is eligible for trade preferences instead of MFN-treatment (Inama 2009; Naumann 2010; Brenton/Oezden 2009). RoO are needed since exported goods are often made from inputs imported from foreign countries. The key objective of RoO is to avoid trade deflection, e.g. routing exports via a third country in order to improve market access. However, RoO also have been used by countries as a form of trade policy to protect domestic interests (Naumann 2010: 1). In order for products to qualify for trade preferences, they have to be ‘wholly obtained’ or ‘substantially transformed’ in a specific country as defined by the applied RoO. Whether or not a product can be considered to be substantially transformed is defined by three criteria, which require (a) a change of tariff heading in a specified nomenclature, and/or (b) specific manufacturing or processing operations, and/or (c) a specific percentage of value added (Inama 2009: 4ff.). The ‘tolerance rule’ (De Minimis rule) allows a product to obtain originating status if the non-originating inputs do not exceed a certain threshold (e.g. 10% or 15%) of the ex-work price in cases where the defined criteria (change of tariff heading or specified manufacturing process) has not been achieved.⁴⁵ RoO also define a set of minimal operations (‘insufficient processing’) which are not sufficient in order to qualify for ‘originating status’ (e.g. cutting, packaging, mixing, etc.).

Cumulation allows for non-originated inputs or processes carried out in a foreign country to be considered as originating in a domestic country in order to obtain originating status. Cumulation can be differentiated between bilateral, regional, diagonal and full cumulation. Cumulation provisions thus allow a group of countries to collectively meet the relevant RoO criteria (Inama 2009; Naumann 2010).

RoO are of particular importance for manufactured goods, since raw materials are mostly ‘wholly obtained’. The specific regulations of RoO nonetheless have important implications for ACP countries, despite their heavy dependence on exports of unprocessed goods, particularly in establishing labor-intensive manufacturing export activities. RoO regulations have an important role in limiting or facilitating the inclusion in global value chains (GVC). In fragmented global trade arrangements being able to source inputs on a global scale is important for lead firms and foreign investors, particularly if certain input sectors are more capital-, skill-, scale- and/or infrastructure-intensive. Hence, liberal RoO are a prerequisite to enter certain GVCs as suppliers of labor intensive manufacturing activities. On the other side, more restrictive RoO can also further local and regional value addition and linkages but only in cases where there are competitive suppliers available and in combination with policies that support competitiveness and upgrading.

⁴⁴ See SADC-EPA: Annex V

⁴⁵ Various agricultural products also have weight tolerance rules.

RoO may also act as a barrier to trade in themselves (EC 2007) due to their complexity and the institutional requirements in order to fully benefit from preferential tariff rates. Institutional capacities and capabilities are necessary in order to comply with the regulatory requirements (e.g. institutions that are able to proof the origin of a product). Due to the complexity of RoO, amplified by different RoO in various trade agreements (EPA, AGOA, COMESA, SADC, etc.), the compliance costs and limited use of preferences are particularly problematic in LDCs.

The first revision of the Cotonou RoO was agreed upon in 2007 in the context of MAR and the iEPAs (Naumann 2010: 11). The EPA RoO include a number of alternative requirements and derogations in order to obtain originating status as well as substantive changes relative to the Cotonou RoO in the textiles and apparel sector ('single transformation') and in the fisheries sector (e.g. crew requirements, non-originating fish material allowance, expansion of wholly obtained principle, etc.) (Naumann 2010). These sectoral changes affected two key export sectors of many ACP countries. The EPA-RoO also provide full cumulation.⁴⁶ Materials originating or working and processing carried out in the EU, EPA states and overseas countries and territories (OCT) of the EU can be considered as materials originating or processing carried out in an EPA state.⁴⁷ Cumulation possibilities also exist for materials that have DFQF access to the EU within GSP or EBA, and materials that are subject to MFN duty free treatment in the EU.⁴⁸ The tolerance threshold (De Minimis rule) is set at 15% but excludes the textile and apparel sector.⁴⁹

Almost all ACP countries without an EPA (or MAR) would fall under the GSP-RoO. The GSP-RoO⁵⁰ were reformed in 2010 in order to simplify and relax the RoO. An impact study of the EC revealed low utilization rates, particularly by LDCs, due to sectorial rigidity and complexity of the RoO previous to the reform (EC 2007). As with tariff preferences, GSP-RoO differentiate between LDCs and non-LDCs. LDCs enjoy more flexible regulations with regard to sectorial requirements to obtain originating status⁵¹ (e.g. single versus double transformation in the textile and apparel sector). The cumulation regulations in the GSP-RoO are more restrictive for ACP countries than EPA-RoO. GSP-RoO only allow for regional cumulation within specified regional groups in which the ACP countries are not part of.⁵² Cumulation within ACP countries after the expiration of Cotonou, which allowed for full cumulation, was thus only possible within an EPA (or MAR) or the so called extended cumulation within GSP. Extended cumulation is granted by the EC upon request and excludes agricultural products.⁵³ The tolerance threshold of the GSP-RoO is also set at 15% and also excludes the textile and apparel sector as in the EPAs.⁵⁴ Despite the GSP reform with regard to RoO, the more relaxed EPA-RoO could be seen as pull-factor to sign the EPAs.

Overall, apart from product specific RoO that require specific manufacturing steps, RoO are of particular importance for sectors with high value added or wholly obtained provisions, with the latter being set for agricultural and food products. Furthermore, full cumulation allows for fulfilling origin requirements within a group of eligible countries as a whole and therefore enables for allocation of various processing steps among these countries.

⁴⁶ ECOWAS-EPA: Annex A, Article 7; EAC-EPA: Protocol 1, Article 4; SADC-EPA: Protocol 1, Article 4(6)

⁴⁷ If they exceed minimal operations.

⁴⁸ ECOWAS-EPA: Annex A, Article 8; EAC-EPA: Protocol 1, Article 6; SADC-EPA: Protocol 1, Article 5 and 6

⁴⁹ ECOWAS-EPA: Annex A, Article 4(4); EAC-EPA: Protocol 1, Article 8(3); SADC-EPA: Protocol 1, Article 8(4-5)

⁵⁰ Commission Regulation (EU) No 1063/2010

⁵¹ Ibid. Annex I, Part II

⁵² Ibid. Article 86

⁵³ Ibid. Article 97g

⁵⁴ Ibid. Article 79

However, a successful application of RoO with enhanced cross-border trade in intermediaries requires administrative capacities as well as know-how within the private and public sector. The role of RoO for regional value chains is analyzed for the textile and apparel sector in the Southern African region in chapter 3.4.

2.4. TBT and SPS regulations

Technical Barriers to Trade (TBT)⁵⁵ and Sanitary and Phytosanitary (SPS)⁵⁶ requirements are typically characterized as ‘non-tariff barriers’ because complex and diverging regulations and standards on the quality and safety of products might increase trade costs and therefore depress or even prohibit trade. TBT and SPS requirements include also conformity assessment procedures such as testing and inspection regulations. All EPAs include specific chapters and articles on these issues, which indicates the importance of the topic in the context of trade with the EU for ACP countries.⁵⁷

On the WTO level, TBT and SPS are regulated by specific agreements which contain disciplines that require all WTO members to design and implement regulations and standards in the least restrictive way. All EPAs reaffirm the rights and obligations under the international treaties and refer to international standard setting bodies, but do not lay down stricter harmonization obligations or commitments on reducing or eliminating regulations beyond the WTO-level TBT or SPS agreements (Prévost 2010, Baltzer 2015). For ACP exporters, this means that they have to fulfill the TBT and SPS regulations set by the EU – which are even higher than international standards – when the EU regulations and standards are compatible with WTO rules.

Thus, improving product quality and safety to meet EU standards is a necessary requirement for ACP countries to take advantage of the market access, in particular with regard to agricultural and food exports. The associated compliance costs are high for most ACP countries. This is taken up in the EPAs by deepened development cooperation commitments and other support by the EU with a focus on SPS measures.

The extent of this cooperation in the three EPAs analyzed differs with regard to the institutional frameworks, potential harmonization and equivalence. For instance, the SADC EPA designates monitoring and coordination to the Trade and Development Committee of the agreement⁵⁸, but all EPAs demand competent authorities in the EPA states to implement the agreed measures and to strengthen transparency and information exchange.

A key issue in the TBT and SPS chapters in the EPAs is the regional dimension. The EU promotes regional harmonization among the EPA states to international standards as a benchmark. This harmonization would facilitate regional trade and could create economies of scale, but also makes import requirements for EU exporters less demanding with regard to national differences.

The substantial investment required by the government and the private sector to adapt to international and even higher EU standards might not be appropriate for all EPA countries, given their local context and priorities in development policies, for instance regarding food security or promotion of specific products. Hence, asymmetries in the high level of TBT and SPS standards and existing capacities in EPA countries are likely to create obstacles

⁵⁵ The term TBT refers to technical regulations (mandatory) and standards (not mandatory) on the characteristics of products, including labelling, processing or production and pursue policy goal such as consumer protection.

⁵⁶ SPS regulations, as a subcategory of technical regulations, are defined by their policy objective of protecting human, animal and plant life and health from risks in food and feed and therefore refer to agri-food products.

⁵⁷ ECOWAS-EPA Chapter 3, EAC-EPA Title IV and V and SADC-EPA Articles 56-56 and Chapter VI

⁵⁸ SADC-EPA Article 57 and 65.

particularly for LDCs unless they are supported adequately through development cooperation.

2.5. Provisions on Trade and Sustainable Development

All three regional EPAs with ECOWAS, EAC and SADC contain provisions relating to sustainable development, as has become the norm in recent EU FTAs. Typically, the EU approach to trade and sustainability includes the following key elements: (i) human rights, (ii) social issues and labor rights, (iii) environmental sustainability, and (iv) economic sustainability. However, with the exception of the SADC EPA, the scope in the EAC- and ECOWAS-EPAs is still limited as ‘trade, environment and sustainable development’ (EAC-EPA Article 5(b(ii))) and ‘sustainable development’ (ECOWAS-EPA Article 106(2h)) are part of the *rendez-vous* clause. We will in the following discuss the treatment of these four elements in the EPAs, thereby drawing extensively on the work of Bilal and Ramdoo (2016).

(i) Human rights:

Though human rights clauses have become a part of EU trade agreements already since 1995, the Lisbon Treaty of 2009 declared them an *essential element* and thus mandatory for EU Trade Policy. With regard to EPAs, already in the Cotonou Agreement (Article 9) human rights obligations were included which even foresaw the possibility of trade sanctions in the case of severe breaches under the so-called *non-execution clause*. Interestingly, the human rights dimension in trade agreements is not only about the prevention of violation of human rights. It is also about promotion of human rights, as well as ensuring that FTAs do not unduly restrict the policy space of its partners, which could have negative human rights effects.

Though the precise wording is not identical, all three EPAs make explicit reference to human rights and the relevant provisions of the Cotonou Agreement (in particular Art. 9).. Given the fact that the Cotonou agreement will expire in 2020, there is some legal unclarity, whether the human rights clauses will become ineffective after 2020 in the case that no successor agreement to Cotonou will be in place. However, one might argue that the question whether human rights are taken seriously by the trade partners, is less of a legal nature, but has essentially to do with political will. Hence, it will be up to the trade partners to pursue a rigorous approach to the monitoring of human rights obligations and enforce the provisions of the agreement in the case of violations.

(ii) Labor rights and social standards:

The EU approach contains two elements, which are distinct but inter-related, i.e. social policy and labor rights.

Firstly, a set of provisions argues for ‘social policy’. These are generally ‘soft’ policies that endorse for instance, the recognition that social policies such as decent work that take into account gender and youth dimensions are conducive for development. Other provisions also engage countries in agreeing not to use social policies as protectionist trade measures. There are generally no enforcement mechanisms. Most clauses are of a best endeavor nature but nevertheless provide for an implementation mechanism through cooperation with partner countries.

Second, labor ‘rights’, which essentially call for legal commitments to respect core labor standards as ‘rights’. These are conditional clauses as countries have an obligation to effectively enforce national labor laws. They also relate to legally binding international

commitments such as those set out in the 1998 Declaration of the International Labor Organization (ILO) on the Four Core Labor Standards. But contrary to the GSP+, EU FTAs do not require the partner countries to ratify ILO Conventions. Besides an obligation to enforce labor laws, these provisions also require countries not to reduce their levels of protection, and encourage countries to even raise their levels of protection, subject to a proviso that this is not done for protectionist purposes.

Importantly, and contrary to established US practices which foresee the possibility of sanctions and submit the labor rights chapter to standard dispute settlement procedures (De Ville et al. 2016), the EU has so far adopted an approach that is confined to dialogue and capacity building.

With regard to the EPAs, it is worth noting that only the SADC-EPA contains an explicit reference to minimum international labor standards and their implementation, while the EAC- and ECOWAS-EPAs only contain indirect references to core labor standards via their reference to the relevant provisions of the Cotonou agreement. Negotiations on a proper sustainable development chapter including core labor rights are relegated to the future via the rendez-vous-clause of the two agreements.

(iii) Environmental sustainability

Substantive environmental provisions were introduced in most EU agreements at the same time as social standards and labor rights, under sustainable development clauses in 2006. The EU approach to environmental sustainability is therefore similar to that used to foster social standards and labor conditions. It is based on 'persuasion' rather than 'coercion', therefore relying on soft mechanisms of enforcement.

Environmental provisions fall into two broad categories:

- (a) Provisions that seek to protect or enhance the environment. Parties are required to enforce existing domestic environmental laws and regulations and are required not to weaken their environmental regimes to attract investment. They recognize countries' 'right to regulate', which means that the agreement does not 'impose' standards. Countries also recognize and agree to support and comply with multilateral Environmental Agreements (MEA) to which the parties are members;
- (b) Environmental cooperation, where parties agree to cooperate on a list of agreed areas but without taking binding commitments to regulate trade through environmental standards.

With respect to the treatment of environmental issues in the EPA, the approach taken is quite similar to that used to foster social standards and labor rights, although there are additional references to the environment in specific chapters such as agriculture and fisheries. These are framed in best-endeavor terms, meant to enhance cooperation. There are no particular mechanisms to trigger sanctions in case parties do not respect their commitments.

The SADC-EPA is more explicit as it refers to the international environmental governance and agreements, including the MEAs, as well as the Cotonou Agreement, in particular CPA Art. 49 (SADC EPA Art. 8). The EAC and ECOWAS-EPAs, respectively, with the exception of special provisions e.g. on sustainable fisheries, largely lack any substantial references to environmental sustainability.

(iv) Economic sustainability

EPAs are by their very nature meant to be first and foremost development agreements. As Bilal and Ramdoo (2016: 29) rightly observe, this means that all dimensions of an EPA are relevant for its impact on sustainability. This is a somewhat unique feature of the EPAs. It makes the assessment of its sustainability more complex than traditional FTAs, as it cannot be circumscribed to its trade and sustainable development chapter. Instead, a host of issues must be taken into account that ultimately determine the economic impact of the agreements. What we take up in this section are therefore only those provisions that explicitly address economic sustainability and discuss potential adjustment burdens.

Interestingly though, only the ECOWAS-EPA addresses the issue of economic sustainability concretely via its Article 3 on 'economic growth and sustainable development'. There, the EPA parties stress *"their commitment to draw up and implement programmes likely to strengthen the macro-economic framework, promote rapid and sustainable economic growth and create the infrastructures essential for the development of the intra-regional and international trade of the West African region"* (ECOWAS-EPA Article 3(3)).

In the other two EPAs, commitments to economic development are worded in even more general terms and typically are either contained in the chapter on trade and sustainable development, like in the SADC-EPA, or referred to in the articles on the objectives of the agreement, like in the EAC-EPA Article 2(1a), or in articles on sector objectives, e.g. on agriculture (EAC-EPA Article 59) or fisheries (EAC-EPA Article 51).

While it is obviously taken for granted in all three agreements that trade liberalization in combination with development cooperation will make a positive contribution to sustainable economic development, it is noteworthy that certain potential negative impacts are addressed. This relates in particular to fiscal adjustment costs. ECOWAS-EPA Article 60, EAC-EPA Article 100 as well as SADC-EPA Article 14 affirm the parties' commitment to support fiscal adjustment through support measures complementary to fiscal reforms for the mitigation of the net fiscal impact of the agreements. In EAC-EPA Article 100, the EU takes the explicit obligation *"to provide financial resources to cover transitionally the agreed losses of government revenue arising from elimination and or substantial reduction in customs tariffs"*. Similarly, in Article 60 of the ECOWAS-EPA, the EU *"undertakes to provide funding to cover the fiscal impact agreed by the Parties for the period of tariff dismantling"*. Article 14.2 (b) of the SADC EPA however is less binding on the EU in merely stipulating that the Parties will agree to cooperate on *"support measures complementary to fiscal reforms for the mitigation of the net fiscal impact of this Agreement to be determined in accordance with a jointly agreed mechanism."*

Apart from fiscal adjustment costs, however, other adjustment costs like for instance with respect to employment, are not explicitly addressed.

In sum, when scrutinizing the four standard elements of the sustainability chapter, one has to note that both in comparison to the CARIFORUM agreement and other recent DCFTA (e.g. EU-Korea, EU-Moldova, EU-Vietnam, CETA), the relevant provisions contained in the three EPA agreements do not dispose of the same level of ambition and comprehensiveness. While the SADC-EPA is comparable in most aspects to the CARIFORUM agreement, the EAC- and ECOWAS-EPAs lack meaningful provisions on labor and environmental standards in particular.

2.6. Development Cooperation

EPAs are not only trade but also development cooperation agreements between the EU and ACP countries. The EPAs will cause adjustment costs including public revenue and employment losses from unilateral tariff reductions by the African partners. The possibility to use the potential on the export side through improved and continuous market access to the EU requires ACP countries to increase their exports to the EU. Development cooperation will therefore have an important role to cushion adjustment costs and increase exports through supply side capacity building measures as productive capacities and capabilities are necessary to ensure export responses. But development cooperation also needs to play an important role to support the implementation of the EPAs in itself as EPA implementation requires high legal, administrative and operational capabilities in the government and private sector. According to expert interviews, around 70 legal and institutional adjustments must be carried out by the SADC-EPA member states for full implementation of the SADC-EPA.⁵⁹

In the EPAs, the priorities for development cooperation indeed target the implementation process of the EPAs as well as capacities to trade and supply-side policy measures to increase competitiveness. The relevant articles in the regional EPAs differ in detail and strength of commitments, but have similar objectives ranging from cooperation on RoO, safeguard measures, TBT and SPS standards to customs and administrative cooperation.⁶⁰

Within the EPAs, it is recognized that the implementation of the agreement requires financial arrangements and 'adequate resources' (SADC-EPA Article 12:5). Therefore all three EPAs list an EPA-development fund as a useful instrument⁶¹ but only the ECOWAS-EPA establishes a more concrete EPA Development Programme⁶² (PAPED). The EU has pledged EUR 6.5 billion for PAPED for the period between 2015 and 2019 (EC 2016b), financed by the European Development Fund (EDF), EU member states and the European Investment Bank (EIB).⁶³ Thus, funds by the EU institutions for PAPED are drawn from existing EU financial instruments. In the EAC-EPA, an EPA Development Matrix listing projects in need of additional finance (e.g. infrastructure such as ports) is attached to, but not part of, the agreement. The development cooperation programs are discussed in more detail in the respective regional EPA chapters 3, 4 and 5 of this study.

Without additional EPA-specific funds or substantial existing budgets earmarked for EPA implementation and trade capacity building, the key financial sources to support development cooperation projects in the context of the EPAs are the current regional and national indicative programmes financed by EDF, own resources of EIB and facilities of individual EU member states as well as Aid for Trade (AfT) facilities. For the EU-side this implies that, unless a regional EPA development financing mechanism is introduced, no additional financial resources to the existing EDF framework are provided for the EPA implementation until 2020. Thus, financing EPA-specific projects is limited to not yet-allocated budgets within the EDF and might generate "box shifting" due to diversion of aid within existing budgets (South Centre 2007). Also, budgets to target supply-side constraints are fixed for the upcoming years and can therefore not support additional productive capacity building measures.

⁵⁹ These include for instance adjustment in the transition to a rules-based trading system.

⁶⁰ ECOWAS-EPA: Part III, Article 52ff.; EAC-EPA: Part V, Article 75ff.; SADC-EPA: Chapter III, Article 12ff. Various other articles related to development cooperation can be found in the EPAs.

⁶¹ ECOWAS-EPA: Article 61; EAC-EPA: Article 102(1); SADC-EPA: Article 12(6)

⁶² ECOWAS-EPA: Article 55ff.

⁶³ The ECOWAS group of countries argued they are in need of 9.5 bn. Euro (UNECA/ECA-WA 2015).

EPA related projects are also expected to be generally initialized by the EPA countries. Prévost (2010: 52) highlights however that “[...] a precondition for needs-driven capacity building is the determination by ACP countries of their capacity needs”. Consequently, EPA member countries are required to identify their capacity deficits and they need the know-how to secure appropriate financial funds and technical support. In this regard, an important entry point for effective EPA implementation, particularly in LDCs, is the determination of national and/or regional needs for capacity building and their coordination among government agencies and the private sector. This is challenging as inter-ministerial and public-private sector coordination mechanisms and related institutions are often rudimentary and non-effective in many LDCs.

Overall, the lack of additional and/or earmarked financial support by the EU for the EPA implementation and EPA-related trade capacity building is problematic, particularly compared to the fixed and often short-term EPA implementation commitments such as tariff reductions. This might create asymmetries between fixed short- to medium-term costs for EPA members and uncertain support and benefits in the longer-run. In this vein, Horn et al. (2009) emphasize that development cooperation in EU FTAs is often formulated as unenforceable intentions and mainly depends on political will (see also Baltzer 2015).⁶⁴ In contrast, obligations are fixed and can be enforced via dispute settlement procedures.

2.7. Review Clause

All three EPAs include a general review clause that gives the members of the agreement certain flexibility to review the progress of the agreement⁶⁵ in addition to opportunities to review specific provisions for instance on RoO, export taxes or sustainable development. In the SADC region, the review concerns the “[...] *Agreement in its entirety* [...]” (SADC-EPA Article 116(1)). The other EPAs are less specific and speak of the agreement in general. In all cases it is the task of the joint EPA institutions to consider and adopt amendments.

The main difference among the agreements is the timing for the review process. While the SADC- and the EAC-EPA allow for a general review five years after the agreement entered into force, the ECOWAS-EPA includes a rolling mechanism for a review every five years. The review of the first five year period (2008-2013) of the CARIFORUM-EPA shows, that various shortfalls were found with regard to the implementation of legal obligations, institutions and processes in most CARIFORUM member states (Singh et al. 2014). Thus, a review process after five years might be too early for major amendments as the implementation of the agreement and therefore potential consequences have not taken place to a sufficient degree yet. Even if negative short-term effects happen within the first five year period and can be associated to certain EPA provisions, potential amendments still need to be negotiated and might not necessarily be altered. Importantly, any review process requires the capacity of the governmental institutions for renegotiations with the EU.

⁶⁴ Only in the ECOWAS-EPA, commitments for cooperation are formulated more strictly. For example: “[...] the EPA Development Programme must contribute to [...]” in ECOWAS-EPA Article 56

⁶⁵ SADC-EPA Article 116, EAC-EPA Article 142, Article 111.

2.8. Monitoring and Implementation

Like other EU FTAs, also the EPA agreements establish a certain institutional structure that is responsible for the monitoring of the implementation as well as the review of the agreement. Typically, a general institutional structure responsible for the oversight of the whole agreement must be differentiated from special institutional structure competent for dealing with e.g. sectoral issues or particular other relevant topics.

Typically, the Joint Council (JC) has the superior competence in overseeing and administering the implementation of an EPA. Specifically, the JC monitors the development of economic and trade relations between the Parties, and assesses the impact of the cooperation provisions of the agreement on sustainable development. In addition, the JC establish the rules of procedures of the Trade and Development Committee (TDC).⁶⁶ The TDC assists the JC in the monitoring of the agreement with respect to its trade and development cooperation dimension. While the JC is composed of political representatives of the parties, the TDC is staffed by senior officials and take on the major operational responsibilities.

Interestingly, the EAC and ECOWAS-EPAs provide for a new EPA Consultative Committee, which creates a dialogue platform and gives non-state stakeholders (i.e. civil society, trade unions, business and academics) a consultative role in the oversight and monitoring of the agreement. Recent EU FTAs (e.g. with Korea, Vietnam, Moldova, Central America, Peru and Columbia) also provide for similar consultation, called Domestic Advisory Groups (DAG), but their tasks are usually focused on specific issues, in particular relating to labor and environmental matters (Orbie et al. 2016). In line with the first of such committee established under the CARIFORUM EPA, the EPA Consultative Committee can address any issue regarding the agreement, including sustainable development issues (Schmieg 2015). It is worth noting that these are thus not limited to trade-related issues, but can also include broad commitments by the parties to respect and promote sustainability and human rights issues. In contrast, the SADC EPA does not contain a Consultative Committee, but in Article 4 only requires the parties to monitor the implementation of the agreement “*within their respective participative processes and institutions*”, without however providing any details on the precise nature of the latter.

Unfortunately, only in the ECOWAS-EPA agreement, a Joint Parliamentary Committee (JPC) has been set up that provides a framework for consultation and dialogue between Members of the European Parliament and Members of the Parliaments of ECOWAS and the UEMOA. The JPC is granted rights of information from the JC, shall monitor the implementation of the agreement and is entitled to make recommendations.

In sum, the institutional structure incorporated into the EPAs differs. All three EPAs dispose of a TDC that is responsible for an integrated monitoring and assessment of both the trade and development components of the agreement. While in the case of ECOWAS, the institutional structure is most comprehensive by including both parliaments and civil society, the institutional setup foreseen in the SADC-EPA is confined to governments only, with the EAC institutional structure taking an intermediate position by allowing for civil society participation.

⁶⁶ In the case of the EAC-EPA, a Committee of Senior Officials performs the functions of the TDC, in the ECOWAS agreement the committee is officially called the Joint Implementation Committee.

3. IMPLICATIONS OF THE SADC-EPA ON MOZAMBIQUE AND THE SOUTHERN AFRICAN REGION

The assessment of potential effects of the implementation of the SADC-EPA on the economies in the Southern African region comprises four parts: Firstly, a short overview of the current economic and particular trade structure of Mozambique is provided. Secondly, the results of simulations with the ÖFSE Global Trade Model with regard to macroeconomic as well as sectoral changes due to the tariff liberalizations agreed in the SADC-EPA are reported and interpreted. Thirdly, the implications of the SADC-EPA for Mozambique, specifically with regard to the institutional and capability requirements and potential constraints, are presented. Finally, a case study on cotton, textile and apparel value chains in selected SADC-countries draws conclusions on the potential effects of the SADC- and ESA-EPA in a specific sector context highlighting the importance of specific sector and value chain dynamics.

3.1. Economic overview of Mozambique

The economy of Mozambique has grown at a steady pace since the Millennium, with an average real GDP growth rate of 7.8% since 2001 (WDI 2016). Consequently, GDP per capita has been on the rise and accounted for USD 623 in 2014 (Table 13). Inflation has been kept under control in recent years, with a sharp drop in 2012. Megaprojects in the gas, oil and coal sectors have a significant impact on Mozambique's economy and explain a large part of its growth, but has not led to structural transformation nor important employment generation. Despite some progress, poverty levels remain high which is also reflected in the Human Development Index of 0.416 (rank 180 of 188 countries) in 2014 (UNDP 2016). Mozambique has a huge current account deficit particularly in recent years which can largely be explained by these import-intensive megaprojects and which has accelerated in the context of the decline in commodity prices, FDI and external aid (IMF 2016a). Official development assistance (ODA) and official aid plays a crucial role in Mozambique, contributing to around 12% of GDP, making Mozambique to one of the most aid-dependent countries in the world (WDI 2016).

However, the data presented in Table 13 does not accurately reflect the current situation of Mozambique's economy given the current crisis. GDP growth is declining and is expected to be 3.7% in 2016 (IMF 2016a, 2016b). Mozambique experienced a currency crash of the Metical (MZN) in 2015/16, which lost around more than half of its value against the USD in only two years. Increasing import prices pushed inflation to 21% on a year on year basis in August 2016. The economy also suffers from a decline in FDI and donor financing. Debt ratios and debt service burdens have not only been negatively affected by the exchange rate devaluation, but also by the discovery of undisclosed debt worth USD 1.4 billion (around 10% of GDP) in April 2016 (ibid.). The positive economic advances of the last 15 years are thus under serious threat, with structural transformation and social development having also throughout the last 15 years been key unaddressed concerns.

The EU is a key trading partner of Mozambique, with around 22% of total trade being conducted with the EU in 2014 (UN Comtrade 2017). The trade relationship with the EU is also heavily influenced by Mozambique's megaprojects and aluminum smelter. The key export goods of Mozambique to the EU include raw materials such as unwrought aluminum, unmanufactured tobacco, coal and sugar as well as other metals and stones (Table 14). Key imports from the EU are technology-intensive and more diverse and include medicaments, vessels, vehicles, machinery and electronics. Wheat is the most important

agricultural good imported from the EU. Mozambique has a trade-surplus vis-à-vis the EU amounting for around EUR 461 million in 2015 (Eurostat 2016).

Table 13: Key economic indicators of Mozambique

	2010	2011	2012	2013	2014	2015
Nominal GDP (current MZN, millions)	344,839	381,692	433,121	482,233	531,299	587,287
Nominal GDP (current USD, millions)	10,154	13,131	14,534	16,019	16,946	14,689
GDP per capita (current MZN)	14,178	15,257	16,831	18,220	19,521	20,991
GDP per capita (current USD)	417.5	524.9	564.8	605.2	622.6	525
Real GDP growth (annual %)	6.7	7.1	7.2	7.1	7.4	6.3
Inflation, consumer prices (annual %)	12.7	10.4	2.7	4.3	2.6	3.6
Current account (net, % of GDP)	-16.5	-25.4	-46.7	-39	-34.2	-41.9
Foreign direct investment, net inflows (% of GDP)	12.4	27.9	38.8	41.8	29.5	25.3
Exchange rate (MZN per USD, period average)	34	29.1	28.4	30.1	31.4	40

Source: WB-WDI 2016

Table 14: EU-Mozambique trade (million EUR)

	2000	2005	2010	2015
Total exports to the EU	174.6	1,017.3	1,393.4	1,429.8
Unwrought Aluminum	21.6	882.2	1,113.6	873.3
Unmanufactured tobacco	7.8	27.7	60.9	150.7
Coal (briguettes and similar solid forms)	5.3			134.6
Cane or beet sugar and sucrose (solid)		15.7	32.8	91.0
Granite, basalt, sandstone and others	9.8	5.5	16.9	28.3
Crustaceans	82.6	62.3	43.1	27.2
Total imports from the EU	202.5	225.8	536.6	969.1
Medicaments	5.1	4.7	19.7	70.4
Fishing vessels and factory ships for processing fishery products	1.1	6.5	0.0	38.7
Vessels			0.0	27.9
Human or animal blood (medicinal use)	0.1	3.0	0.3	22.1
Tubes and pipes (iron or steel, > 406 mm external diameter)	0.0		0.9	22.0
Boards, panels, consoles etc. for electronical apparatuses	4.3	0.6	4.9	21.9
Wheat and meslin		5.2	28.7	20.9

Source: Eurostat 2016

3.2. ÖFSE Global Trade Model: Simulation results for the SADC-EPA

3.2.1. Description of methodology and calibration

The assessments of the economic effects of the three Economic Partnership Agreements on the specific regions are based on the ÖFSE Global Trade Model, a structuralist Computable General Equilibrium (CGE) model. A detailed model description elucidating the differences to standard CGE models is provided in this section and serves as reference for the other regional results.

ÖFSE Global Trade Model: Methodology

The applied ÖFSE Global Trade Model is a structuralist Computable General Equilibrium (CGE) model. As in standard neoclassical CGE models, the analysis is comparative static. It considers the implementation period of a trade agreement by comparing the situation before with a situation after the implementation of the agreement. The difference of our model to standard CGE models is the macroeconomic causality applied. In the ÖFSE Global Trade Model, output and income are determined by aggregate demand, rather than through a neoclassical clearing labor market. In other words, the underlying macroeconomic model is that of an income-expenditure framework, rather than a full employment model.

Standard, neoclassical trade CGE models presume to be based on microeconomic theory. Their focus lies on reallocation of economic activity across sectors instead of aggregate activity levels. Economic gains then emanate from productivity increases through such reallocation effects, in combination with price decreases. Similarly, they assume a constant public deficit, and thus do not assume revenue effects from trade policy changes – the public household is just an extension of the optimal allocation of the aggregate household. In consequence, standard CGE models speak neither to employment nor to public balance effects of trade policy, even though these are arguably of central importance.

The ÖFSE Global Trade Model seeks to address these weaknesses by shifting the focus. A multi-sectoral income-expenditure framework determines equilibrium in the goods market, and employment levels follow therefrom, given labor productivity changes. Wages, in turn, are functions of labor market tightness, and prices are mark-ups on intermediate, import and labor costs. In this sense, macroeconomic causality conforms to an AS/AD structure: first, demand determines output, and output drives employment; second, wages and prices are the outcome of bargaining in a non-clearing labor market.

Thus, a neoclassical model assumes a full employment steady state and focuses on sectoral reallocation, but does not claim to describe the adjustment path towards such an equilibrium. The income-expenditure framework, in contrast, assumes under-employment and focuses on demand effects, but does not claim to describe a full employment equilibrium. One could thus consider the resulting equilibrium as a medium-run Keynesian under-equilibrium that, at best, suggests adjustment costs on the path towards the ultimate new full employment equilibrium.

The model causality assumes that the immediate effect of policy and resulting price changes is a change in expenditures. Only in the very long run, and only if there are strong tendencies towards full employment steady states, does the reallocation equilibrium, supported by the necessary price changes, come about. When that happens, and whether it does, is not clear at all. Even though countries including the EPA partners, are typically not in a liquidity trap, they are nowhere near a full employment steady state.

See also Raza et al. (2016) for further details on the model.

EPA-Scenarios

CGE simulation results depend on various factors including the production and trade structure, size and current tariff protection level of the economies and sectors involved in trade liberalization as well as the scenario design.

The EPAs represent a specific challenge for the modelling of FTA liberalization compared to other FTAs, in so far as the DFQF access to the EU is an exceptional preference for ACP countries that have no LDC status. This is the case for the upper middle income countries Botswana and Namibia in the SADC-EPA, which would face MFN-tariffs on their exports to the EU in the case that the EPAs were not implemented. Similar, Swaziland in the SADC-EPA, Kenya in the EAC-EPA as well as Ghana, Côte d'Ivoire and Nigeria in the ECOWAS-EPA would face GSP preferences for exports to the EU. Alternatively, preferential market access to the EU can be formalized in a bilateral FTA with the EU (e.g. the TDCA between the EU and South Africa).

In general, the effects of FTA liberalization are assessed in comparative static (and most dynamic) CGE models by comparing a baseline equilibrium - often projected to some future year - with a counterfactual one, obtained by shocking a set of parameters in the baseline equilibrium (for instance import tariffs). The baseline scenario commonly refers to the continuation of the current preference scheme. Given the specific characteristics of preferences for selected non-LDC countries within the ACP group of countries, it is argued (for instance in EC 2016a), that the baseline for these countries is not represented by continuation of the current DFQF market access to the EU, but rather by the tariff preferences, they would receive by the EU according to their income level.

In such a simulation set-up, the effects of the extraordinary preferences offered by the EU in the EPA would be captured. This objective is pursued in the economic impact assessments on the EPAs by the EC (e.g. EC 2016a on the SADC-EPA). The simulations in these reports show the effects of enhanced market access of ACP countries via EPAs compared to a "would-be" (EC 2016a:46) scenario with MFN or GSP tariffs on exports to the EU in combination with the tariff reductions by the ACP countries. As explained in EC (2016a: 46) "... a 5% decrease [in bilateral exports] does not necessarily mean that bilateral exports will decrease compared to today. It rather implies that bilateral exports in 2035 are lower by 5% compared to their would-be value in 2035 without the EPA." In these reports, considerable effects appear only for those countries that can avoid MFN or GSP tariffs by ratifying the EPAs, while LDC countries or countries with existing FTAs show little to no effects according to the applied standard CGE models (see also sections 3.2.4., 4.2.4. and 5.2.4. for more details).

Two drawbacks to this EPA simulation design can be identified: Firstly, the baseline scenario of a change in trade preference requires a separate simulation in the first place, as imposing MFN or GSP tariffs by the EU imply macroeconomic effects for the countries concerned. Reported EPA simulation outcomes are then changes relative to an already simulated 'would-be' baseline scenario. From a methodological point of view this renders the interpretation of these results problematic, if the primary aim of the simulation is to compare a status-quo with the effects of some policy measure, e.g. a trade agreement. Secondly, as in EPA countries such as Ghana and Côte d'Ivoire interim EPAs are already in force, the tariff liberalization schedules of the EPAs are already applied in the single ACP countries, while the DFQF access to the EU is continued. Thus, in our view simulations of EPA effects should start from the current status quo, since this will render them most relevant for policy makers and trade negotiators.

(continued next page)

The results reported in this study refer therefore to the difference between DFQF access for most EPA countries and the large majority of products as the baseline, and a scenario with tariff reductions in EPA countries according to commitments under regional and interim EPAs, respectively. In order to take into account the potential loss of trade preferences by non-LDC countries in the absence of regional EPAs, an additional 'MFN/GSP' scenario is applied, in which the EU grants preferences to the other EPA member states according to their current income level. The analysis is, however, particularly focused on the EPA scenario given that the case studies and other elements of the study refer to the comprehensive implications of the EPA for selected ACP countries.

A corollary of the assumed causality is that unilateral liberalization will tend to have negative effects as long as trade price elasticities are sufficiently high and one-sided price changes lead to an import surge that is not balanced by export or consumption increases. However, import price elasticities might be zero if imports (in a particular sector) are strictly complementary to domestic production. Under this assumption, the importing (African) country would not respond at all to relative price changes on the import side. Then the aggregate effect of unilateral liberalization will tend to be positive, since the public balance deteriorates – implying an injection. On the aggregate level, zero elasticities are however not a realistic assumption for developing countries. We scrutinize the importance of elasticities for determining simulation results by way of sensitivity analysis.

The database for the assessment are multi-country data for the year 2011 provided by GTAP (Global Trade Analysis Project, Version 9), which allows for explicit modelling of the effects on bilateral trade flows due to changes in trade policies.⁶⁷ For this analysis, the model is calibrated for eleven countries and regions that cover all global economies and trade flows.

The regions for the SADC-EPA include the EU, Mozambique (MO), South Africa (SA), Botswana (BO), Namibia (NA) and the Rest of SACU (Swaziland (SL) and Lesotho) as the SADC-EPA members. In addition, the ECOWAS (ECO) and ECA regions as African trading partners as well as the United States (US), South East Asia (including China, SEA) and the Rest of the World (ROW) are included. For all countries/regions, 20 sectors are covered focusing on agri-food and manufacturing sectors (see Table 15 and Table 1(II) in Annex II). Table 15 also shows the applied trade price elasticities that are also derived from the GTAP database.

Based on the tariff liberalization schedules of the SADC-EPA agreement, all tariff reductions for the individual countries have been estimated as trade-weighted changes to base year tariff levels.⁶⁸ As shown in Table 15 and Table 2(II) in Annex II, three different liberalization patterns have to be considered in the case of the SADC-EPA for South Africa, all other SACU countries and Mozambique, indicating the different degrees of liberalization according to the development status and current MAR. Most importantly, the EU reduces its tariffs only against South Africa, while all other SADC-EPA members have continued DFQF access to the EU. Two scenarios are considered to highlight trade liberalization effects following the liberalization patterns shown in Table 2(II) in Annex II (see also section 2.1 for more details). A third scenario shows the effects in the case that the regional EPA

⁶⁷ The base year data are not projected to a future year, as we focus on reporting percentage changes.

⁶⁸ Estimations are still necessary due to the lack of trade volume data on a national CN8 level and quota provisions. In the case of Mozambique, the tariff liberalization covers up to 66% of import value of goods from the EU, which is a reasonable approximation to the targeted benchmark of 74%.

is not implemented and ACP countries face EU trade preferences according to their income level. The changes in EU import tariffs for the countries concerned are reported in Table 3(II) in Annex II.

The model simulations are based on changes in tariffs only. Possible long-run effects on export sectors in SADC-EPA countries supported by development cooperation efforts or higher investment affected by the agreement are not part of the analysis. A further limitation of the simulations, as in most CGE models, is that effects of tariff reductions on products with low or no trade flows are underrepresented due to use of past trade data. The simulation results should therefore be carefully interpreted as effects of the asymmetric tariff liberalization.

Three scenarios are considered to highlight trade liberalization effects:

- 1) "SADC-EPA": all SADC-EPA-Members reduce tariffs as scheduled
- 2) "SADC-EPA w/o MOZ": EU and all SADC-EPA members except MO liberalize
- 3) "MFN/GSP": EU applies MFN tariffs for BO and NA and GSP tariffs for SL; MO (EBA) and SA (FTA) remain unchanged;

Table 15: Sectoral Overview and Calibration Mozambique

		Import share	Import Price Elasticity		Base year Tariffs		Tariff reduction		
		(imports by MOZ from EU)	By sector	Weight	Tariff	Weight	In %*	Weight	Share
1	Cereals	1.4	1.8	0.025	2.5	0.035	-5	-0.1	0
2	VegFruit	0.1	0.9	0.001	9.3	0.006	-5	0.0	0
3	OthAgri	0.0	2.2	0.001	4.3	0.002	-5	0.0	0
4	OthCrops	0.1	1.6	0.001	6.7	0.005	-10	0.0	0
5	Fishery	0.0	0.6	0.000	0.0	0.000	0	0.0	0
6	Commodities	0.1	2.6	0.003	5.3	0.005	0	0.0	0
7	Meat	0.4	2.1	0.008	16.6	0.064	-10	0.0	0
8	Sugar	0.1	1.4	0.002	7.4	0.010	-80	-0.1	0
9	Dairy	0.4	1.8	0.008	12.7	0.056	-10	0.0	0
10	Foods	2.3	1.2	0.028	16.5	0.376	-5	-0.1	0
11	BevTab	2.0	0.6	0.012	14.5	0.291	-50	-1.0	2
12	Textiles	0.5	1.9	0.010	15.7	0.080	-20	-0.1	0
13	Apparel	0.4	1.9	0.007	18.4	0.073	-2	0.0	0
14	Leather	0.3	2.0	0.007	18.0	0.059	-100	-0.3	1
15	Petroleum	1.3	1.1	0.014	6.1	0.080	-5	-0.1	0
16	Chemicals	11.4	1.7	0.188	4.0	0.457	-50	-5.7	13
17	Machinery	21.8	2.0	0.442	6.2	1.357	-100	-21.8	50
18	Metals	0.2	1.9	0.004	7.3	0.017	-100	-0.2	1
19	OthManu	24.1	1.8	0.425	8.4	2.032	-60	-14.4	33
20	Services	33.0	1.0	0.314	0.0	0.000	0	0.0	0
Sum		100		1.50		5.0		-66**	100
Average			1.6		9.0		-31		

Notes: Import share, import price elasticity and tariffs are derived from GTAP database. Tariff reductions based on own estimations. *Tariff reduction in percent compared to current tariff rate. **Trade-weighted by trade in goods

Source: GTAP database and own calculations.

Table 15 shows that the most important sectors for EU imports to Mozambique are other manufacturing, machinery and chemicals. As tariff liberalization is particularly strong in these sectors, effects are concentrated in these sectors (last column 'Share').

3.2.2. Analysis of the model results

In the following, macroeconomic as well as sectoral results are presented with a focus on the effects of tariff reductions in the context of the SADC-EPA for Mozambique. The results on sectoral changes are derived for the first scenario only, which is the central scenario.

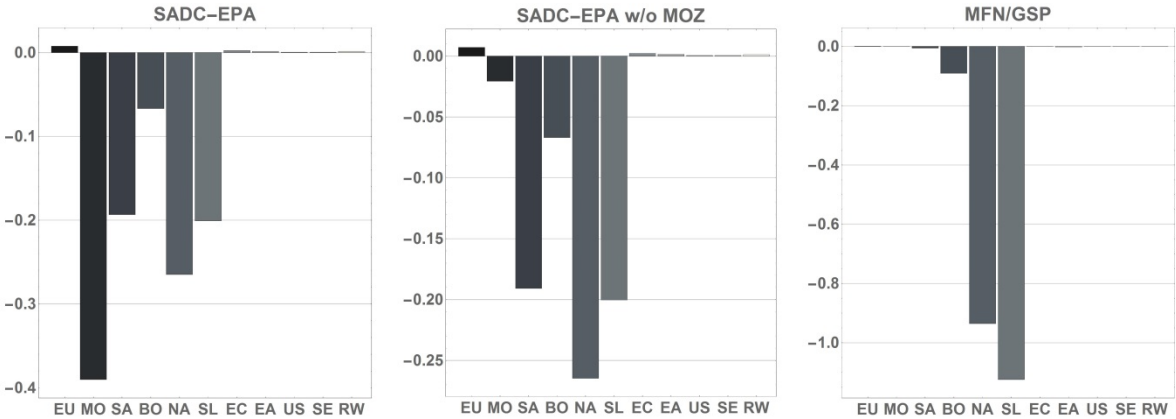
Macroeconomic results

The main macroeconomic results from the model simulations focus on the changes in real GDP and the contributions to these effects based on the income and the expenditure approach. Most importantly, the one-sided liberalization with selected tariff reductions in the SADC-EPA countries increases imports from the EU, which drives macroeconomic and sectoral effects.

Growth of country real GDP, three scenarios

Figure 1 shows model output in the aggregate on a country (or region) level for all three scenarios.⁶⁹ Each bar represents the real GDP growth rate of the country in response to the applied liberalization scenario. Thus, for example, in the left panel, the second bar for Mozambique has the height of -0.39, as the proportional change in Mozambique’s real GDP in scenario 1 is -0.39%. The first bar has a height of 0.01, representing growth of EU real GDP of 0.01%. For the rest of the SADC-member states, the output changes are negative but lower than in Mozambique and range from -0.07% to -0.26%. For the SADC-EPA region as a whole, GDP declines by 0.20%, dominated by the performance of South Africa as major economy in the bloc.

Figure 1: Growth of country real GDP (at factor costs) in three scenarios.



Notes: Scales on the y-axis differ for the single scenarios.
Source: CGE calculations

⁶⁹ The left panel summarizes scenario 1, which is here (and in all following figures) labeled “SADC-EPA,” the middle panel summarizes scenario 2, labeled “SADC-EPA w/o MOZ,” and the right panel summarizes scenario 3, labeled “MFN/GSP.” Along the bottom of the frame, each panel labels the countries and regions by their three-letter signifiers.

Mozambique's real GDP shrinks because liberalization substitutes imports from the EU for domestic economic activity: reduced prices of EU goods lead to an increase in imports. Lower tariffs decrease firm's (non-factor) costs, and thus lead to a ceteris paribus increase in real incomes of households. However, if factor demand decreases as well, household incomes fall. In these results, the latter effect clearly dominates the former, and consumption demand falls. These linkages are emphasized in Figures 2 and 3.

The liberalization effects are most negative for Mozambique, despite the fact that the required opening affects only 74% of import volume from the EU compared to 86.2 % in the other SACU countries and 98.7% in South Africa. However, the trade-weighted protection level of 5 % in Mozambique against EU imports is higher compared to the other SADC-EPA members (0.9% in South African and 2.6% in Namibia). Thus, despite the high degree of tariff lines exempted from liberalization, the effective tariff reduction is the highest in Mozambique causing more pronounced negative effects.

The second scenario ('SADC-EPA w/o MOZ') focuses on an EPA agreement that excludes Mozambique. While the remaining SACU countries show similar effects compared to the EPA scenario, GDP in Mozambique hardly changes as its tariffs against imports from the EU remain unchanged. However, the withdrawal of Mozambique from the EPA appears not as a realistic option, given that Mozambique is part of the SACU and highly dependent on EU development cooperation, the latter being arguably reduced in this case.

The third scenario ('MFN/GSP') shows effects of potential changes in EU tariff and quota preferences against the SADC-EPA members, if SADC-EPA were not implemented. In this case, Botswana and Namibia would face MFN tariffs for its exports to the EU and Swaziland (SL)⁷⁰ would fall under the GSP system. Contrary, import tariffs on goods from the EU would remain unchanged. Further, tariffs in EU trade with South Africa and Mozambique would also be unchanged, assuming that the EU and South Africa continue their bilateral FTA (TDCA) and Mozambique as a LDC country remains in the EBA status. In comparison with the DFQF access to the EU, exports from the countries with higher MFN and GSP tariff barriers to the EU would decline under this scenario (see also Figure 3), leading to negative macroeconomic effects.

The outcomes in the third scenario differ however among the selected countries due to their specific export structure. While Botswana and Namibia both fall into the MFN scheme, Botswana's GDP declines by a mere -0.09%, as the EU MFN tariff for diamonds, which are Botswana's major export commodity, is zero. Namibia's GDP shrinks however by -0.94%, as higher MFN tariffs negatively affect its exports in the vegetable and fruits (v_f) and the foods (fds) sectors. Further, Swaziland (SL) sees a decline in GDP by -1.12%. This is largely driven by potential EU MFN tariffs on its sugar exports.

It is important to note however that the underlying causes for the outcomes in the EPA scenarios and the MFN/GSP scenarios differ fundamentally. While negative EPA effects are largely caused by import effects, MFN/GSP outcomes are driven by changes on the export side, as also shown in section 4.2.2. for the case of Ghana. Taking into account the comprehensive effects of the regional EPAs, including enhanced development cooperation, the MFN/GSP scenario should not be interpreted as the polar opposite to the EPA case.

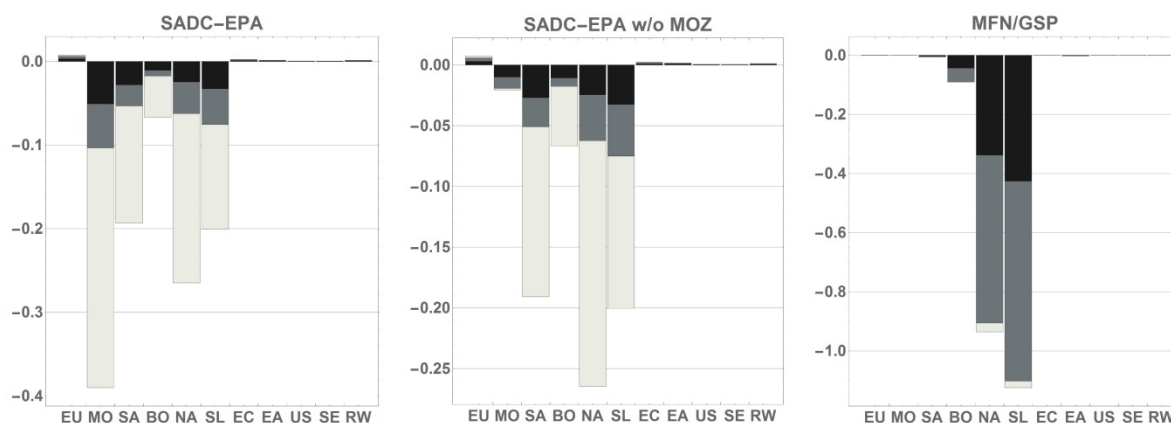
⁷⁰ In the GTAP database, Swaziland and Lesotho are combined in the region 'Rest of South African Customs Union' (xsc). Disaggregated effects are therefore not provided here (see also EC 2016a on this issue).

Growth contributions of incomes and expenditures

Figure 2 and Figure 3 contain the same (and more) information as Figure 1. First, the total bar heights in Figure 1, 2 and 3 are identical, i.e. -0.39 % for Mozambique in the first scenario. GDP can be decomposed either into incomes – private and public – or expenditures – consumption, public expenditures, investment, and net exports.

Thus, Figure 2 represents the income decomposition, where private incomes are the sum of total wages and profits, and public income are indirect taxes and tariffs. The black portion of the bar (-0.05%) represents the contribution of wages to total growth, which is defined as the product of the share of the wage bill in GDP and the growth of the wage bill. (Note that all components are deflated by the GDP deflator.) The dark gray portion of the bar (-0.05%) represents the growth contribution of profits. The light gray (-0.29 %) shows changes in production taxes and tariffs, mainly reflecting the effects of foregone income from tariff reductions. The three components sum to -0.39%. In the 'MFN/GSP' scenario, income effects in the affected countries are almost entirely driven by changes in wages and profits, as public income from taxes and tariffs hardly changes.

Figure 2: Growth of country real GDP in three scenarios (income side)

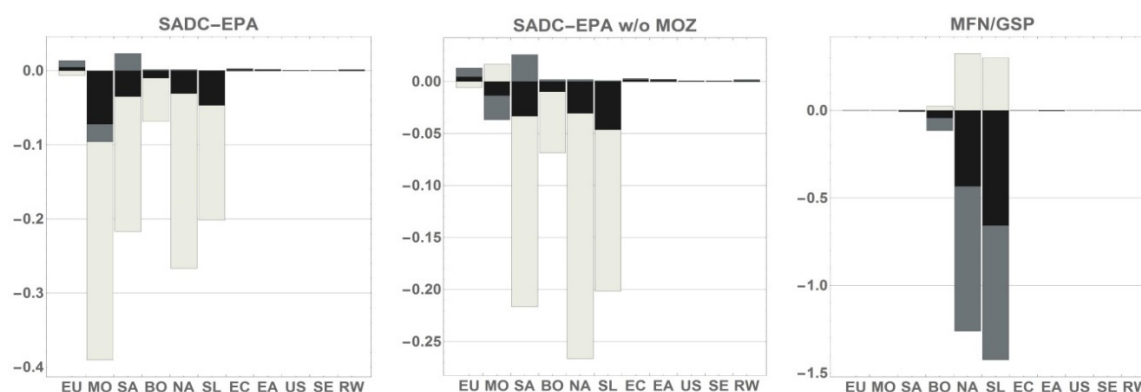


Notes: Decomposition of growth from the income side. Black represents growth contribution of total wages, dark gray profits, and light gray indirect taxes and tariffs.
Source: CGE calculations

Analogously, Figure 3 shows the growth contributions of the endogenous components of demand: black represents consumption (-0.07%), dark gray exports (-0.02%, which is hardly visible in the figure) and light gray imports (-0.29%). Again, the sum, given small rounding errors, is -0.39%.

In the EU, growth in real exports – due to the one-sided liberalization shock – and consumption contribute to a positive, but small, change in real GDP. South Africa is the only SADC country that sees noteworthy changes in exports to the EU due to the partial liberalization in tariffs and quotas by the EU. In the case of the MFN/GSP scenario, EU tariffs on exports from Botswana, Namibia and Swaziland would depress exports from these countries leading to a fall in aggregate income. Consumption and imports decline consequently.

Figure 3: Growth of country real GDP in three scenarios (expenditure side)



Notes: Decomposition from the expenditure side. Black represents growth contribution of real consumption, dark gray real exports, and light gray real imports.
Source: CGE calculations

These decompositions highlight the above mentioned causal linkage for the two EPA scenarios. Firm costs fall as tariffs are reduced, but the resulting surge in imports reduces factor demand as imports substitute for domestic value added. Further, the price reductions are in total too insignificant to affect export competitiveness. Thus, net exports fall, and the fall in value added is reflected in a contraction in household income and therefore consumption. The driving factor in Mozambique is tariff reduction on the income side, and the import surge on the expenditure side.

Effects on trade flows

As highlighted in Figure 3, changes in imports largely contribute to the changes in real GDP in the SADC-EPA countries, mainly driven by higher imports from the EU. As Table 16 shows, imports from the EU to Mozambique increase by more than 5.1%, while exports to the EU from Mozambique hardly change (0.01 %) as expected from one-sided liberalization. Most importantly, within the SADC-EPA intra-region trade declines due to trade diversion effects. Thus, Mozambique imports and exports less from and to other SADC-EPA countries and all other regions in the world. In total this results in a loss in aggregate exports (-0.05%), while aggregate imports increase by 0.51%.⁷¹

Table 16: Changes in inter-regional trade flows, SADC-EPA

	EU	Mozambique	Other SADC-EPA countries	All other regions	TOTAL
EU	0.01%	5.16%	2.10%	0.00%	0.02%
Mozambique	0.01%		-0.17%	0.01%	-0.05%
other SADC-EPA countries	0.28%	-0.48%	-0.23%	0.00%	0.07%
All other regions	0.01%	-0.57%	-0.17%	0.00%	0.00%
TOTAL	0.01%	0.51%	0.57%	0.25%	

Notes: Exporting countries/regions are in the first column and importing countries/regions in the following columns. Thus, exports from the EU to Mozambique increase by 5.16% or respectively imports by Mozambique from the EU increase by 5.16%.
Source: CGE calculations

⁷¹ Please note that Figure 3 reports contributions to growth in real GDP, while Table 16 shows changes in real trade flows.

Changes in macro balances

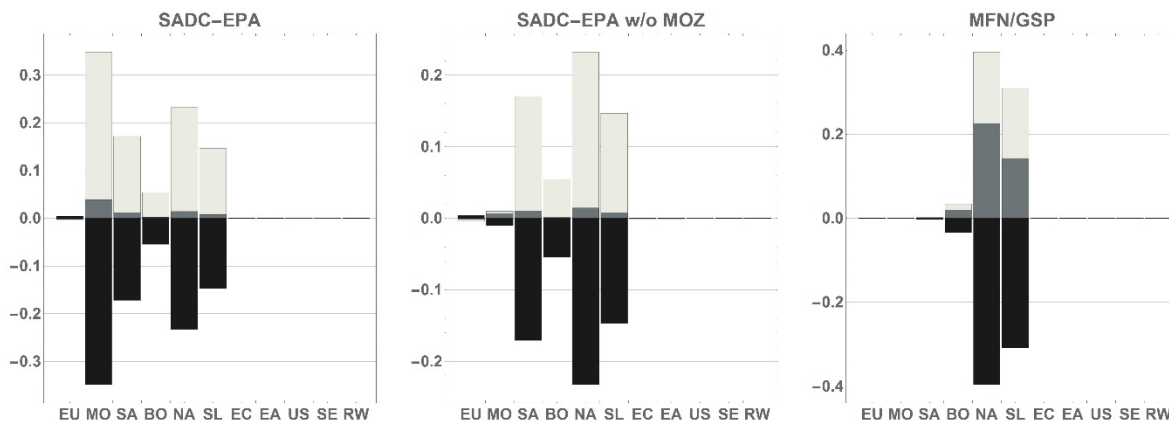
In contrast to standard CGE models, the ÖFSE Global Trade Model includes changes in important macroeconomic balances, namely the change in net exports (foreign balance), the change in the private balance and the change in the public balance, all relative to GDP.

Figure 4 details aggregate country results from a different perspective. Model equilibrium in the market for goods and services occurs when demand is equal to supply. An equivalent way of saying the same thing is that all demand injections equal leakages, or, more specifically, that the sum of the differences between injections and leakages of private, public and foreign 'institutional sector' is equal to zero.

In other words, both before and after the application of the liberalization scenario, the sum of net exports or the *foreign balance* (E-M, black), the *private balance* (I-S, dark gray) and the *public balance* (G-T, light gray) is zero. Note that the public balance is the negative of the public deficit. Following convention, the balances are defined as difference between injection and leakage, thus determining a *net borrowing flow* of the institutional sector.⁷²

Figure 4 shows the *changes* in these balances, normalized by pre- and post-liberalization GDP. Since the pre- and post-liberalization sum of the balances is zero, the sum of these changes will be zero as well. As an example, consider Mozambique's bars in the left panel, which summarizes model results for scenario 1. The change in net exports relative to GDP amounts -0.35%. The change in the private balance relative to GDP is 0.04% and the change in the public balance 0.31%. Thus, net exports relative to GDP fall by roughly a third of a percentage point of GDP. The implied increased borrowing of Mozambique from the rest of the world 'finances' primarily an increased public deficit, as first tariff revenue falls away and then economic activity and therewith the tax base is eroded. As household incomes fall, private savings decline as well (see also section 6.3. for more details on loss in tariff revenues).

Figure 4: Change in sectoral balances relative to GDP, three scenarios



Notes: Black represents the change in net exports relative to GDP, dark gray the change in private balance relative to GDP, and light gray the public balance relative to GDP. Each balance is defined as a net borrowing flow, i.e. the difference between injections and leakages.

Source: CGE calculations

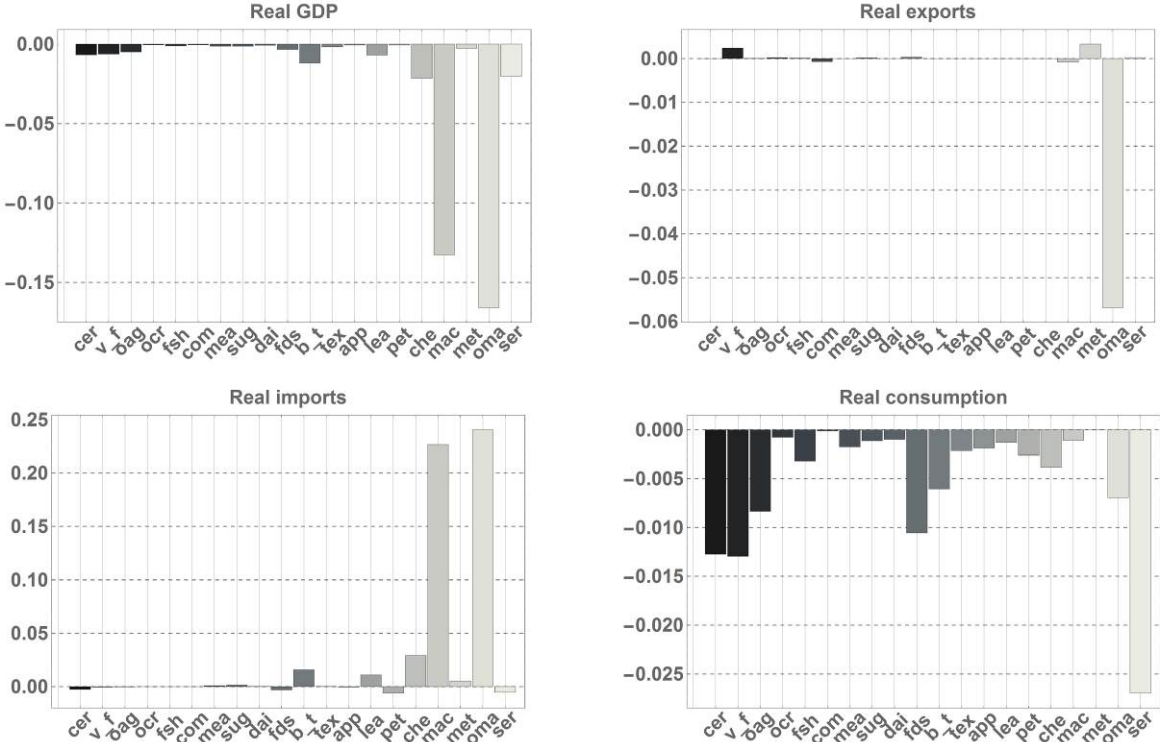
⁷² In the case of a trade deficit, the foreign sector has negative net borrowing, which is equivalent to net lending from the rest of the world to the country under consideration. Note further that in the foreign balance both expenditure components are endogenous, but that in private and public balance only leakages are endogenous – public expenditure G and firm investment I are held constant.

In summary, across Figures 1 to 4, the results clearly suggest that unilateral effective liberalization in SADC-EPA countries vis-à-vis the EU leads to import surges. The increased imports are not balanced by increased demand either from consumption or exports, so that aggregate value added falls. Further, unilateral liberalization leads to a worsening of the public balance, threatening fiscal capacities.

3.2.3. Sectoral results

Figure 5 and 6 report sectoral details for Mozambique in response to scenario 1. Let us consider Figure 5 and there the top left panel first. The bars represent sectoral contributions to growth of aggregate real GDP. GDP is the sum of wages, profits and indirect taxes. Then, each bar is the product of the sector’s share of the sum of wages, profits and indirect taxes in total GDP and the growth rate (in percentage points) of that sum.⁷³ It follows that the sum across the bars is the growth rate of GDP, namely -0.39% known from Figure 1 to 3.

Figure 5: Sectoral contributions to growth in Mozambique in scenario 1



Notes: Top left: Each bar represents the sectoral contribution to growth of real GDP. The sum across sectors amounts to -0.39%, see the bar for Mozambique in Figure 1. Top right: Each bar represents the sectoral contribution to growth of real exports. The sum across sectors is the aggregate growth rate of real exports (-0.05%). Bottom left: Sectoral contributions to growth of real imports; aggregate 0.51%. Bottom right: Sectoral contributions to growth of real consumption (-0.11%). Source: CGE calculations

The remaining panels show related statistics on the sectoral expenditure side. The top right, for example, records the sectoral contributions to the growth of aggregate real exports. In other words, each bar represents the product of the share of sectoral real exports in total real exports and the growth rate of those sectoral real exports. Only some already

⁷³ Considering the sector’s growth rate of wages, profits and taxes individually can be misleading. For example, leather, sector (lea), experiences a sharp contraction of value added, since it’s still relatively high tariffs are completely abolished. However, the share of the sector in total value added is so small that it does not factor strongly in this growth decomposition.

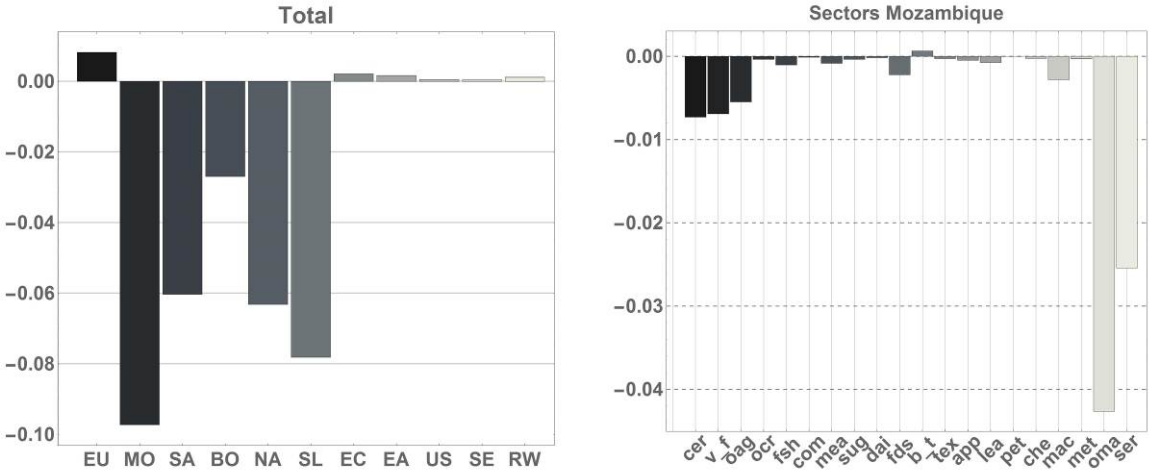
important export sectors Mozambique, e.g. vegetables/fruit and metals, might see very small increases in exports to the EU. The real GDP changes in these sectors are nevertheless negative. These aggregate growth rates are -0.05% for real exports, 0.51% for real imports (compare also to Table 16) and -0.11% for real consumption.

The right panel of Figure 6, in turn, documents in analogous fashion the sectoral contributions to real growth of employment in Mozambique, the aggregate of which is -0.10%.

The results can be read as follows. Sector machinery (mac) and other manufacturing (oma) dominate real GDP, exports and imports. This is due simply to the fact that imports in these sectors from the EU make up a large share of total imports. In the model database, the sum of the shares of these two sectoral outputs from the EU amounts to 46%. Further, tariffs, while not the highest, are high enough and their removal in the EPA scenario sufficiently steep that the import-share weighted tariff reductions in these two sectors sum to 83% of the total tariff reduction in Mozambique. As a consequence, real imports in machinery and other manufacturing rise, suppress domestic activity, and reduce employment and household income. Even though the magnitude of percentage changes is small, any losses in manufacturing employment have a crucial impact on the potential development path.

Though the aggregate employment losses are comparatively small, the percentage change in the SADC-EPA region as a whole of -0.07% would be equivalent to 18,000 jobs of which 7,000 jobs are affected in Mozambique (own estimates based on ILO Statistics).⁷⁴ Employment losses in Mozambique occur mainly in the agricultural sector given the high share of labor employed in this sector, but also up to 1,000 jobs in the industry sector would be affected. Counter wise, job losses of up to 9,000 jobs occur in the manufacturing sector of the whole SADC-EPA region, mostly in South Africa.

Figure 6: Employment growth



Notes: Left panel shows aggregate employment growth in all regions in scenario 1. Right panel shows sectoral contributions to aggregate employment growth in Mozambique in scenario 1. The sum across sectors at right is equal to Mozambique's bar in the left panel.

Source: CGE calculations

⁷⁴ Estimates based on annual average employment data by economic activity between 2011 and 2015 and own sectoral simulation results. Since employment statistics in Africa are notoriously lacking in quality, and typically cover formal employment in urban areas only, these numbers must be interpreted carefully.

3.2.4. Sensitivity analysis

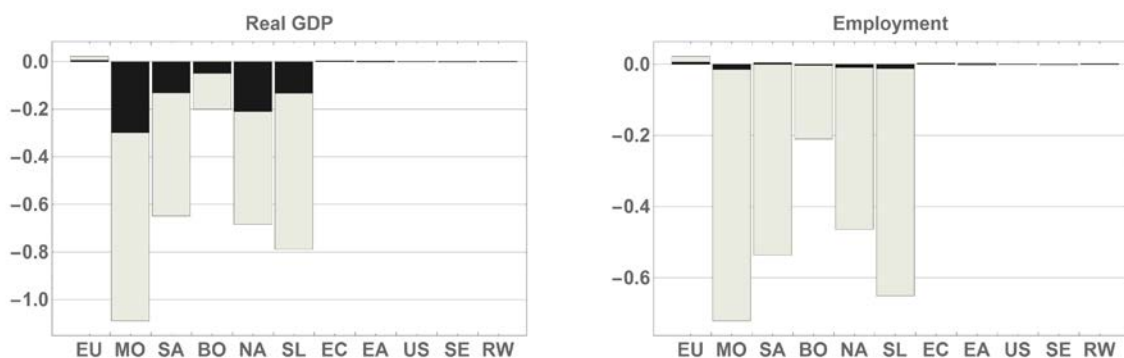
Figure 7 presents sensitivity analysis. The purpose of sensitivity analysis is to assess to what degree model results depend on parameter values, which, often, are surrounded by significant uncertainty. Here, we focus on import price elasticities: the elasticity that describes the percentage change in real imports in response to a percentage change in relative prices. Traditionally, but also in our model, these elasticities are exogenous inputs into the model and have a significant effect on the magnitude of the estimated effects. The elasticities applied in our model (as discussed above) are from the GTAP database, and are, following standard practice, uniform across countries but vary across sectors.

These so-called “Armington elasticities” are often viewed critically on the grounds that they are unreasonably large. The unweighted average of the GTAP elasticities in our aggregation is 3.2, with elasticities around 4 in sectors such as *leather* and *machinery*. For our baseline calibration, which is used to produce model results in the three scenarios previously discussed, we therefore feed only half the GTAP value into the model, for an unweighted elasticity average of 1.6. In the case of Mozambique, the average elasticity vis-à-vis the EU, weighted by import shares, then amounts to 1.5.

Now, to conduct sensitivity analysis, we, first, further reduce the average elasticity values, and, second, increase them. Figure 7 presents these results for scenario 1. The low elasticities correspond to 1/3 of GTAP values, the high elasticities to 5/3 of GTAP values. The black bar shows the growth rate of real GDP with low elasticities, and the gray bar shows the *additional change* with high elasticities. Thus, for Mozambique, the left panel records a real GDP contraction of -0.3% with low elasticities, and -1.09% with high elasticities. The right panel illustrates the concomitant growth rate of real employment.

The ranges represented in Figure 7 are indicative of the uncertainty surrounding estimates of the effect of liberalization. As shown for the case of Mozambique, the EPA outcomes depend crucially on trade effects in specific sectors, particularly in the sectors machinery (mac) and other manufacturing (oma). Thus, elasticities are important factors to determine trade responses following changes in tariffs and subsequently overall effects.

Figure 7: Sensitivity analysis



Notes: The left chart shows model results in scenario 1 for different trade price elasticities. The black (gray) bar corresponds to 1/3 (5/3) of GTAP trade price elasticities. The unweighted average of trade price elasticities across sectors is 1.05 (5.32); for our baseline scenario with half the value of GTAP elasticities the unweighted average is 1.60. The size of the gray bar is inclusive of the black. For example, Mozambican real GDP contracts by -0.3% with 1/3 of elasticities, but contracts by -1.09% with 5/3 of elasticities. The right panel shows the corresponding results for aggregate employment.

Source: CGE calculations

3.2.5. Comparison and Conclusions

Our simulations have shown that unilateral liberalization in the countries of Southern Africa and in Mozambique in particular, will have negative, though rather small effects on GDP and employment, both at an aggregate and sector level. This is largely in contrast to results of standard models applied to EPA trade liberalization scenarios. Generally, model results differ due to type of models (CGE, Partial Equilibrium), model causalities, datasets, time frames and liberalization scenarios and should therefore be compared with caution.

For instance, the assessment on the economic effects of the SADC-EPA by the EC (2016a) assumes that GSP and MFN tariffs would apply for exports of non-LDC if there were no EPA. Based on this assumption, the SADC-EPA would trigger bilateral trade liberalization on both sides, including an improved market access to the EU. The overall GDP and trade effects in this assessment are positive but small and range from changes in GDP of 0.01% in South Africa and Mozambique to 1.18% in the rest of SACU (Swaziland and Lesotho), given that in particular Swaziland would avoid tariffs on its sugar exports to the EU. Importantly, the LDC country Mozambique would benefit only marginally from the agreement and production in industrial sectors (chemicals, motor vehicle or capital goods) would decline according to the economic impact assessment (EC 2016a: 51).

Based on our approach, the asymmetric liberalization as scheduled in the SADC-EPA has negative macroeconomic and sectoral effects on all SADC-EPA countries compared to the status-quo. Negative effects on the existing industrial structure of the country are particularly noteworthy. In addition, the current account and the budget deficit will deteriorate. While these results primarily indicate the effects of the SADC-EPA during the implementation phase of the agreement, it is clear that in order to reap any benefits from the agreement these economies will need to promote the competitiveness of their export sectors and engage in a long-term strategy of upgrading their economic and particularly industrial structure that will have to extent over and above EPA implementation. The management of the implementation process of the SADC-EPA will thus be pivotal in maximizing the positive effects.

3.3. Implementation of the SADC-EPA in Mozambique: Opportunities and Constraints

With the ratification of the SADC-EPA by the parliament of Mozambique in April 2017 and the submission of the ratification instrument to the EU council, the SADC-EPA replaces the current market access regime with the EU. With the SADC-EPA, Mozambique enters into a comprehensive trade agreement with the EU that requires substantial efforts within Mozambique to implement the agreement, to address potential negative effects, to use its export potentials and hence make the agreement beneficial for the country particularly in the longer run. In this regard, the current status of Mozambique's economic and institutional structure is a decisive constraint in using the potential of the agreement. In the end, it will co-determine whether the far-reaching expectations associated with the agreement will be met or not.

This section builds on section 2 of the report which analyzed the relevant provisions of the SADC-EPA and potential challenges for SADC-EPA member states. Thus, in this section, firstly the expectations associated with the EPA in Mozambique are discussed followed by secondly an analysis of important constraints in terms of capacities and funding in order to use the potential of the EPA. It is concluded that the implementation and the efforts to take advantage of the market access to the EU demands a lot from a country such as Mozambique, and hence calls the positive expectations of the EPA into question.

3.3.1. General perception of the SADC-EPA in Mozambique

Our interviews, conducted with representatives of government agencies, business associations and other relevant local and international actors in Mozambique, clearly suggest that the SADC-EPA is mostly perceived as an opportunity for long-run economic development and regional integration. In particular, the commitment to wide-ranging development cooperation in the context of the EPA is seen as a major advantage for Mozambique. This commitment is of particular importance given that technical assistance and capacity building are considered necessary preconditions for the country to be able to implement and benefit from the agreement. In this respect, increased capacities and capabilities with regard to trade-related issues in EPA-member states in the course of implementing the different EPAs would also strengthen regional integration in the long-run.

On the export side, the possibilities for Mozambican agricultural products in the EU market are highlighted. This requires however that constraints related to SPS compliance will be remedied, which is expected to happen through increased development cooperation. On the import side, a number of stakeholders expect the elimination of import tariffs to lead to decreasing EU import prices and more intense price competition with positive results for domestic consumption. In addition, the potential effect of the SADC-EPA to attract more foreign investment into Mozambique is mentioned. Various actors also highlight the potential problems related to increased imports in replacing domestic production and employment but business associations do not see this as a major concern. Furthermore, the consequences from tariff liberalization on the public budget are not a major concern. The important exceptions from liberalization negotiated on the import side, including most agricultural products and some industrial goods such as vehicles, textile and apparel, cement, furniture and ceramics are widely perceived as important and positive.

However, the lack of capacities and capabilities with regard to trade-related issues is widely identified as the key deficit of Mozambican actors and institutions at the government and private sector level. If not addressed, this deficit will constrain the implementation and limit the benefits of the SADC-EPA. Already in the negotiation process, the shortfall in capacities in most ACP countries, particularly compared to the EU, was regarded as a major drawback, particularly for LDCs (see also Makhan 2009). Mozambican interview partners highlighted that the country is currently only to a limited extent capable of taking advantage of the trade preferences and provisions. Hence, capacity building projects in the area of legal, administrative and institutional capacities as well as productive capacities to ensure an export response are seen as crucial by most participants to be able to use the potential of the EPA.

During the time of the fieldwork (November 2016), the SADC-EPA was in the process of ratification, which was completed in April 2017. Therefore, the impacts of the agreement, for instance on the public budget or import competition and hence employment effects in certain sectors, were not yet appreciated and analyzed by local actors. In addition, projects on the implementation of the EPA were still in the planning phase, if they existed at all. It was further asserted that only very few actors, i.e. the few persons in government agencies and other actors directly involved in the negotiations or in the current implementation tasks, had specific knowledge on the EPA and its specific provisions and commitments. The most mentioned aspect was the development cooperation part followed by market access commitments and TBT as well as SPS issues with very limited knowledge on issues such as RoO and the potential loss of policy space in terms of standstill, MFN, national treatment, export duties and safeguard clauses. Thus, comprehensive information on the agreement in the government, the private sector as well as in the more general public is deficient.

3.3.2. Potential constraints in the EPA-implementation process in Mozambique

In the following, the indicated lack of capacities in Mozambique with regard to implementing the SADC-EPA is analyzed with respect to various relevant dimensions.

Institutional capacity for negotiations and implementation

Given the extent and comprehensiveness of the EPAs, negotiating as well as implementing the agreements puts significant demands on institutional capacities. Chasek and Rajamani (2003) recognize that capacity imbalances in multilateral trade negotiations are often to the disadvantage of developing countries. They hence recommend capacity-building measures already during the negotiation process. This was done during the EPA negotiations with efforts by the EU to strengthen negotiation capacity of partner countries (see Makhan 2009). These efforts were however criticized as being too limited. Besides, important conflicts of interest problems emerge if the negotiating partner funds capacity building activities.⁷⁵ But even with capacity building, Mozambique had no full-time body exclusively devoted to the EPA negotiations as most trade experts in the government deal with multiple agreements, negotiations and topics.

Beyond the negotiations, the application of the SADC-EPA requires permanent resources by the member states to facilitate dialog and cooperation, monitor and control compliance, monitor and record potential negative economic effects to implement potential safeguard measures, or engage in the settlement of disputes. Besides the Joint Committee as the main body to oversee and administer the implementation of the agreement, the SADC-EPA establishes an assisting Trade and Development Committee and a Special Committee on Customs and Trade Facilitation.⁷⁶ In addition, a substantial role is designated for the Trade and Development Committee on TBT and SPS matters.⁷⁷ Beyond these bodies, also a local EPA unit to coordinate local implementation measures among and within the different ministries and government agencies as well as the private sector and civil society organizations might be useful. For Mozambique, this entails a strong commitment to financial and human resources to increase capabilities and to engage in the complex tasks assigned to these institutional bodies.

Such a strong focus on EPA-related capacity building might also create capacity bottlenecks in other areas. To benefit from the EPA it will not only be important to build capacities for implementation, but also to focus on capacity development for strengthening the export sector. For this, the development of sector strategies and specific industrial policy measures in addition to improvements in infrastructure and the business environment will be required in order to support firms to enter and improve their positions in value chains and increase exports to the EU market. This requires important capacity building not only in the private sector but also in the government so as to be able to develop, implement, monitor and adapt such policies. Such productive sector capacity-building should also be in the focus when implementing the agreement; otherwise the export-related benefits will not be materialized.

⁷⁵ In the current RIP, budget for the support of SADC-EPA negotiations on services is accounted for. However, negotiations are currently ongoing while measures to support capacity-building on this issue still need to be set-up.

⁷⁶ SADC-EPA Article 50

⁷⁷ SADC-EPA Articles 57 and 65

Safeguard Measures

As discussed in section 2.2., safeguard measures offer important possibilities for ACP-EPA states to protect themselves from potential negative effects on the import side due to tariff liberalization. Also exemptions in the national treatment clause and in export duties ensure some policy space in terms of these important industrial policy measures. However, as highlighted above, the prerequisites to apply these measures might be too high, in particular for LDCs.

With regard to the safeguard measures, to be able to apply them, firstly, the conditions that cause or threaten to cause specified disturbances have to be linked to (potential) effects of EU imports. Thus, administrative capacities to monitor and evaluate import flows are required.⁷⁸

Furthermore, the conditional safeguard measures require coordination with and convincing of the EU ahead of full application. Therefore, political will from the EU, and constructive aid relations as well as progress in the implementation of other EPA obligations might have an influence.

Rules of Origin

As discussed in section 2.3., the EPAs establish more liberal RoO in the trade relations between the EU and the ACP countries which generally offer more opportunities and flexibility for producers to enter certain value chains. For some products, in particular textiles and apparel, RoO were simplified to single transformation provisions in the SADC-EPA (see sector case study in section 3.4.). For most other products, better cumulation provisions, including full cumulation are available. At the same time, such cumulation provisions increase the complexity in value chains and customs procedures. Hence, in order to enjoy the benefits of DFQF market access to the EU, elaborated capacities in administrative bodies (mainly the Customs Authorities) as well as in the private sector to administer and monitor these RoO regulations are required.

On the administrative side, the establishment of a legal framework for full cumulation among the SADC-EPA states, other EPA states and the OCTs is a legal prerequisite before firms are allowed to use the full cumulation provision. This requires administrative cooperation among all countries involved⁷⁹, complete recording of trade flows and the establishment of investigative powers of Customs Authorities on a national level to effectively certify and verify the proof of origin. In particular, the proof of origin is generally seen as a challenging task for the customs authorities as verification requests from importing countries have increased in the context of more global trade flows (Tanaka 2011). Hence, allowing for increasing cross-border trade in intermediaries makes the procedures for origin-certifying institutions more complex, in particular when regulations vary among different FTAs (for instance, the SADC Protocol of Trade and the EPAs apply different RoO regulations). For Mozambique, this implies that the Customs Authority as part of the Mozambican Revenue Authority needs the legal and practical capabilities to fulfill its tasks. Even though procedures on RoO are already applied in the SADC protocol of trade and the EBA agreement, interviewees identified the need for capacity-building for the effective administration of RoO as a crucial step in the EPA implementation.

In the private sector, firms have to incorporate RoO to utilize EPA preferential market access. Most importantly, this requires knowledge on the firm level on the effect of potential

⁷⁸ Cooperation on trade data is also an issues for cooperation in the SADC-EPA

⁷⁹ In the SADC-EPA, this cooperative arrangement, including the ACP Joint Undertaking on Administrative Cooperation, should be implemented within five years.

RoO regulations on their sourcing policies and value chains dynamics. For the EU-South Korea FTA, Cheong (2014) shows that initially only 20% of the preferential access was used by Korean firms, mainly due to the complex RoO. Only the introduction of suitable policies focusing on capacity building in firms allowed this high income country to increase the utilization rate up to 80%. Hence, capacity building measures also have to target the private sector and links between the Customs Authority and firms have to be strengthened to enable firms to use RoO effectively.

Sanitary and phytosanitary (SPS) regulations

As underlined in section 2.4., SPS regulations in export destinations impede trade opportunities for many LDCs given their limited capacities, for instance, in fulfilling testing and inspection requirements, despite the importance of the agri-food sector in countries such as Mozambique where the sector accounts for 25% of GDP (WDI 2016). In the SADC-EPA, the parties to the agreement generally aim at regional harmonization towards international standards and set priority products for this regional cooperation.⁸⁰ This is however a long way and hence compliance with EU SPS measures that are even more stringent than international standards does require substantial efforts by exporters and administrative bodies. The SADC-EPA thus emphasizes cooperation with regard to national and regional activities. Specifically, the Trade and Development Committee is installed to monitor the implementation and enhance cooperation in the area of SPS regulations.

Development cooperation to support compliance with SPS regulations, as in other areas, is based on needs-driven capacity building (Prévost 2010). SPS measures cover various issues, ranging from disease prevention to testing, inspection, certification and approval procedures. Consequently, several national actors in Mozambique are involved, for instance the Ministry of Health, the Ministry of Agriculture and Food Security with its specific protection departments, the Ministry of Fishery, the Instituto Nacional de Normalização e Qualidade (INNOQ) as well as the Customs Authority. Therefore, effective inter-agency coordination and the inclusion of the private sector in order to identify deficits, effective entry points and priorities for development cooperation projects with the EU are necessary. Projects have to incorporate the local context and priorities in the development of the agri-food sector for which large investments to fulfill specific EU SPS requirements might not be fully appropriate. The currently limited level of capacities thus has to be taken into account to coordinate effective cooperation measures.⁸¹ Further, coordination with regional EPA states in particular with regard to collaboration on priority goods, including also cotton seed, is important. Finally, potential donors have to be addressed and the appropriate financial resources have to be secured for national and regional projects.⁸²

Funding of EPA-related implementation projects

The shortfall of capacities, as identified for the above areas, brings development cooperation to the center of attention. However, the loose link between the EPA obligations and intended development cooperation and financial resources by the EU, as emphasized in section 2.6., increases the need for appropriate management of needs-driven capacity building. This presumes on the one hand the capacity and institutional arrangements (i.e. inter-agency coordination and private sector inclusion mechanisms; see SPS example above) to identify the specific deficits in capacities in trade-related issues and on the other hand to access suitable financial and technical support mechanisms. Additional funds or

⁸⁰ SADC-EPA ANNEX VI

⁸¹ For instance, no certified laboratory for tasks such as pesticide residual testing is currently active in Mozambique, according to various interview partners.

⁸² This might also include Aid for Trade funds on SPS issues.

targeted budgets to finance EPA implementation and related capacity building projects are very limited and part of the existing development finance instruments.

For Mozambique, the major source for development aid by the EU is the national indicative programme (NIP) with a volume of EUR 734 million for the years 2014 to 2020.⁸³ In this program no funds are designated for trade-related measures in Mozambique directly as the key areas of the NIP are (i) good governance and development and (ii) rural development. The implementation of the SADC-EPA is only mentioned with reference to coherence and synergies with the RIP (p.8): A large part of the NIP is fixed as budget support (EUR 207 million). Via the project approach, aid for EPA-related measures might be available, but hinges on the capacity of public or private institutions to identify needs and design suitable projects. But there is the problem of diversion of funds from other development priorities. In addition to the NIP, there are programs supporting EPA implementation at the EU member state level.

The only available sources for financial contributions by the EU partially targeted to the SADC-EPA are the regional indicative programmes (RIP) for Eastern Africa, Southern Africa and the Indian Ocean with its general focus on regional economic integration. Out of the total volume of EUR 1.3 billion of the 11th RIP until 2020, around EUR 33 million are designated to all 15 SADC member states for the objectives of negotiating trade agreements, including support to the SADC-EPA negotiations in services, implementing the SADC-EPA and supporting industrialization strategies that might enable member states to benefit from EPA-related trade opportunities. Given the multitude of operations in this sub-budget until 2020, the available budget share for Mozambique is however relatively limited.

Funded by previous RIPs, the SADC Trade Related Facility (TRF) is currently the only source of financial support ear-marked for EPA-projects. The facility was established in 2014 and eligible countries could apply for project funding related to the SADC-EPA and EPA implementation from mid-2015 onwards for a volume of EUR 1.4 million. In November 2016, Mozambican authorities were preparing an application for funding various projects including the improvement of capacity for effective administration of RoO (Mozambique Revenue Authority), TBT and SPS issues (INNOQ, Ministry of Agriculture and Food Security, Ministry of Fisheries), trade remedies/safeguards, a Project Management Unit (Ministry of Industry and Trade), as well as a value chain development strategy for the cotton sector (Ministry of Industry and Trade) and a value chain development strategy for the forestry sector (Ministry of Industry and Trade). The outcome and evaluation of this first application process will provide important insights on the potential challenges in accessing development cooperation funds for these priority EPA implementation issues and hence to what extent the SADC-EPA fulfills its promise of being not only a trade agreement but also supporting related development outcomes in the SADC-EPA region.

⁸³ Importantly, the volume of the 11th NIP for Mozambique with EUR 734 million is substantially higher than the volumes for NIPs in other SADC-EPA countries such as Lesotho (EUR 142 million), Swaziland (EUR 62 million), Namibia (EUR 58 million) and Botswana (EUR 33 million).

3.4. CASE STUDY I: Effects of the EPAs on the textile and apparel sector in selected SADC countries

The sectorial case study of the textile and apparel (T&A) as well as cotton sector in selected SADC countries shows the importance of specific sector and value chain dynamics as well as local conditions in being able (or not) to use market access potentials on the export side. To understand the development implications of the EPAs for ACP T&A exporting countries, it is first crucial to analyze the regulatory changes the EPAs have brought. For LDCs, the EPAs imply no direct changes on the export side as they had DFQF market access and single transformation in T&A already under EBA. For non-LDCs the EPAs provide an important change, regarding tariffs and RoO (single transformation rule). But the analysis of regulatory changes has, secondly, to be done in combination with assessing competitive business dynamics within the T&A GVC and particularly the sourcing and investment strategies of lead firms/buyers and foreign investors in these countries to understand potentials and limitations for export responses. Thirdly, local conditions clearly have a large impact on the possibilities to use the export potential of the EPAs. Specifically, in SSA LDCs local industrial and institutional capacities and capabilities on the firm side as well as the government side are often very restricted which limits entrepreneurial and policy response to the EPAs. This once more highlights the importance of development cooperation in the area of productive capability building to support sector-specific policies and projects at the national and regional level.

This section starts with an overview of the global textile and apparel sector, highlighting key organizational and regulatory dynamics. In the following the regulatory changes of the EPAs specific for the T&A sector are discussed followed by an overview of potential impacts on Mozambique as well as the main apparel exporting countries in the SADC region, i.e. Mauritius, Madagascar, Lesotho and Swaziland. A special focus is put on the potential for regional value chains, including cotton, textile and apparel production in the SADC region. Such a regional perspective is crucial given the size, capacities and capabilities of many LDCs and particularly SSA LDCs T&A sectors. Regional integration could play a central role in making the SSA T&A sector competitive and sustainable, reducing lead times and costs, capturing more value added and linkages in the region, and diversifying end markets abroad and within the region. In this context, different complementary advantages in the region could be leveraged and economies of scale, vertical integration and horizontal specialization could be promoted (Staritz 2011).

3.4.1. The global textile and apparel sector

The textile and apparel (T&A) sector has traditionally been a gateway to export diversification for particularly LDCs and is generally regarded as a first step for developing countries embarking on an export-oriented industrialization process. Given its low entry barriers (low fixed costs and relatively simple technology) and its labor intensive nature, particularly the apparel sector provided employment opportunities particularly for previously marginalized groups of workers, such as women and unskilled workers, who often did not have access to wage employment beforehand as well as upgrading opportunities into higher value-added activities within and across sectors (Staritz 2012). However, the defining characteristics of the apparel industry also mean that it is very competitive. It is easy to enter and relatively footloose as production and trade patterns can be adjusted quickly to changing market conditions. This can be also seen in the existence of often very problematic working conditions as has been most dramatically shown in recent fires and building collapses in major South Asian apparel supplier countries. Besides occupational health and safety (OHS) issues, most pressing issues in the global apparel sector are low wages,

excessive overtime, high work intensity and flexible working arrangements that are related to cost pressures and the often short lead times and flexible orders of global buyers. Further, the rights to organize and to collective bargaining are often scrutinized (see Plank et al. 2014).

The T&A sector is a prime example of a sector being organized in organizationally and geographically fragmented global value chains (GVCs) where production of components and assembly into final products is carried out via inter-firm networks on a global scale. The apparel sector can be roughly divided into four stages that are intertwined with the textile sector: (i) raw material supply, including natural (e.g. cotton and wool) and synthetic or man-made fibers (e.g. polyester, nylon and acrylic); (ii) yarn and fabric production and finishing (textile sector); (iii) apparel production; and (iv) distribution and sales channels at the wholesale and retail levels. Natural and synthetic fibers are produced from raw materials such as cotton, wool, silk, flax and chemicals. These fibers are spun into yarn which is used to produce woven or knitted greige fabric. The fabrics are then finished, dyed or printed and cut into pieces to produce apparel, home furnishings and industrial and technical textile products for a variety of end-use markets. In contrast to the very labor-intensive apparel sector, textile (yarn and fabric) production is more capital and scale intensive which explains why textile production has partly remained in developed countries or shifted towards middle-income countries whereas apparel production has been also relocated to LDCs (Staritz 2012).

T&A represents a classic example of a buyer-driven value chain which are characterized by decentralized, globally dispersed production networks, coordinated by lead firms who control activities that add “value” to products (e.g., design, branding), but often outsource all or most of the manufacturing process to a global network of suppliers (Gereffi 1999). Although buyers are not directly involved in production, they yield significant control over manufacturers and stipulate often detailed product and production specifications. The strategies of lead firms/buyers, in particular their global sourcing policies in terms of costs, quality, lead times and flexibility, as well as compliance, importantly shape production and trade patterns and upgrading opportunities in the T&A sector.

In countries where the T&A sector is dominated by FDI which is common in LDCs, particularly in SSA, additionally the investment strategies of foreign investors are important. These have important implications on the role of foreign-owned plants in GVCs and potentials for upgrading. Most importantly, transnational investors which are part of global production arrangements with headquarters mostly in Asia have minimal decision making power and linkages in host countries as they have a clear global division of labor with production locations in LDCs often being only involved in low value added activities. This is in contrast to more embedded investors that have more interest to expand activities and linkages in host countries such as for example regional investors from Mauritius in Madagascar and from South Africa in Lesotho and Swaziland or some type of European investors in Madagascar (Morris et al. 2016).

Besides the crucial importance of organizational dynamics, in particular strategies of lead firms/buyers and foreign investors, regulatory factors decisively influence global production and trade patterns in T&A GVCs. The T&A industry has been one of the most trade-regulated manufacturing activities in the global economy having been governed by a system of quotas until 2004 (the Multi-Fibre Arrangement (MFA) and later the Agreement on Textile and Clothing (ATC)) and remaining high tariff rates. Average Most Favored Nation (MFN) tariffs on apparel imports are around 10.5% for the EU and the US with considerable variations for product categories, in particular in the US where tariffs vary between 0 and 32% (WTO 2016). In this context preferential market access has a substantial impact on

global T&A trade patterns, including bilateral and regional trade agreements as well as the Generalized System of Preferences (GSP) within which the EU has offered more favorable preferential access for LDCs, such as with the Everything but Arms (EBA) and the GSP+ initiatives (Frederick/Staritz 2012). Here the EPAs play a crucial role as they change preferential market access conditions for ACP countries.

3.4.2. Regulatory changes through the EPAs

Market access for SSA T&A products to the EU is governed by several regimes – MFN, MAR, GSP or EBA and now also the EPAs. Table 17 shows the different tariffs for apparel – the main end product in the T&A GVC – that apply to these regimes. For LDCs that benefit from EBA there is no change on the tariff side which is in contrast to non-LDCs that would lose zero tariff access without the EPAs.

Table 17: EU-tariffs on apparel (2016, %)

		MFN*	GSP**	EBA	EPA
HS 61	Knitted or crocheted	11.7	9.4	0	0
HS 62	Not knitted or crocheted	11.3	9.0	0	0
HS 63	Other made up textile articles	10.1	8.1	0	0

Notes: *Average of the HS codes. **GSP offers 20% reduction from MFN tariffs for HS codes 50-63 (Regulation (EU) No 978/2012), presented GSP tariffs are calculated from average MFN tariffs. Competitive sectors might 'graduate' and lose the preferential access provided by GSP.

Source: WTO database, own calculations.

RoO regulations are crucial as they determine if T&A products can make no, partial or full use of preferential market access and there have been important changes with the EPAs. For apparel, RoO are commonly differentiated in single transformation where only the sewing stage has to take place in the beneficiary country (fabric to apparel), double transformation where also one input production step has to be conducted such as knitting or weaving of fabric (yarn to fabric), and triple transformation where in addition to knitting/weaving also the spinning of yarn has to take place in the beneficiary country (fiber to yarn). The specification of these manufacturing processes has a huge impact on possible sourcing practices and competitiveness, since they define whether or not firms can source intermediate inputs from abroad and continue to qualify for preferential access to the EU market.

Since textile production is more capital and scale intensive than apparel production, double and triple transformation acts as a significant market barrier for countries or regions without a competitive textile sector. Furthermore, even in the case of a developed textile sector, exporting firms might still need to source additional fabric and yarn from abroad. This is often a requirement to be part of certain GVCs as lead firms/buyers stipulate textile mills on a global basis that have to be used by their apparel suppliers. Hence, even though the motivation behind more restrictive RoO might be to support backward integration, double and triple transformation RoO may hinder market access in GVCs and particular for LDCs given the capital and scale intensive nature of textile production that makes establishing competitive textile sectors challenging. However, importing textile from abroad has also disadvantages in terms of lead times, flexibility and costs. Hence, developing competitive regional textiles sectors that can be used for the production of apparel exports will be crucial in SSA where textile is the missing link in the GVC – for competitiveness and value added reasons – but imports will still be required as not all types of textile products can be produced locally or regionally.

The Cotonou-RoO until 2007, the GSP-RoO until 2010, as well as the GSP-RoO for non-LDCs since 2010 require ‘substantial transformation’ for apparel products in order to qualify for the ‘substantial transformation’ requirements.⁸⁴ With the introduction of the MAR (2008), the GSP-RoO for LDCs (2010) and the EPAs, the EU introduced ‘single transformation’ RoO for many ACP countries (Table 18). The single transformation rule requires only the sewing stage to be conducted in the beneficiary country, which increases the room of manoeuvre of apparel firms since they now can source fabric and yarn inputs from around the world. This also has beneficial effects on investment decisions, since it significantly lowers the size of investment needed to qualify for preferential market access in a country without a developed textile sector. However, on the other side, the single transformation rule might also limit the creation of linkages by reducing incentives for the establishment of vertically integrated value chains as well as local and regional sourcing. The key beneficiaries of the new T&A-RoO in the EPAs are non-LDCs, since LDCs do qualify for single transformation anyways within the GSP-RoO for LDCs.

Table 18: EU-Rules of Origin for apparel of ACP-countries

	LDC		Non-LDC	
	Single Transformation	Cumulation	Single Transformation	Cumulation
Cotonou (until 2007)	-	+	-	+
GSP before 2010	-	-*	-	-*
GSP after 2010	+	-*	-	-*
MAR (since 2008)	+	+	+	+
EPAs	+	+	+	+

Notes: * Regional cumulation for predefined groups (no ACP countries included). Exceptions are possible via ‘extended cumulation’.

Source: Own Elaboration

The EPA-RoO also expand the possibility of ACP T&A sectors to cumulate materials originating in the region, all other ACP EPA-countries, the EU and OCTs. These more flexible cumulation rules are however of little importance in the light of the single transformation rule.

A further potential impact of the EPAs particularly on the apparel sector comes through the Sustainability Chapters. They particularly focus on labor rights and working conditions and broader human rights obligations. Such issues are highly relevant in the global apparel sector and also in the main African apparel exporter countries. Even though global buyers have taken compliance with labor standards as central in their sourcing decisions and many global buyers have developed codes of conducts (CoC) that include labor standards and conduct regular audits, such corporate social responsibility (CSR) measures tend to be selective and may be in contradiction to the core sourcing requirements of buyers (see Plank et al. 2014). Hence, the creation of institutional structures including the private sector, government and civil society actors as envisaged in the Sustainability Chapters of the EPAs could provide important improvements to traditional supplier country national laws and regulations that often suffer from lack of enforcement as well as private sector driven CSR initiatives. As these mechanisms should involve EU and partner country actors they could become particularly effective in comprehensively dealing with labor issues and related competitive dynamics along and sourcing requirements in apparel GVCs. However

⁸⁴ However, there are various exceptions within the relevant HS groups in all RoO discussed in this chapter (Cotonou, MAR, GSP/EBA, EPA). The overall classification in single and double transformation rules is nonetheless important.

to ensure the effectiveness of these mechanisms and the implementation of labor clauses and of remedies for labor violations, a high level of involvement of civil society actors at the EU and partner country level is required. Our interviews in the African country cases have shown that there is very limited awareness about and knowledge of these mechanisms which highly challenges their potential impact and demands support of civil society actors particularly in partner countries to be able to use these mechanisms.

3.4.3. Country case studies

Mozambique

There is no substantial T&A sector in Mozambique and the few firms that exist are largely not exporting (for the few exceptions, see below). Hence, a more direct beneficiary of the EPAs and regional T&A GVCs could be the cotton sector. The cotton sector is a focal sector in Mozambique due to its role in job and foreign exchange generation as well as its potential role in the establishment of a national textile and apparel industry. The sector has created important linkages with the regional T&A value chain. Until recently, the large majority of raw cotton was exported to Asian countries through international commodity traders originating from Europe and Asia. However, regional raw cotton exports to Mauritius have increased importantly since 2010 outgrowing other export destinations (Table 19). According to the Mozambique Cotton Institute (IAM), Mozambique exported 54% of its raw cotton to Mauritius in 2014/15. Table 3 also shows that there are significant variations in raw cotton exports by value and by volume from a peak of 69.9 thousand tons in 2011/12 to 14.2 thousand tons in 2014/15. Besides weather-related issues, a main reason for the recent drop in production is the substitution of raw cotton for other crops (mainly sesame and beans) by farmers due to unattractive world cotton prices as well as lower yields.

Table 19: Mozambique’s raw cotton exports (million USD)

	2010/2011	2011/12	2012/13	2013/14	2014/15
Total ('000 tons)	26.8	69.9	22.4	22.8	14.2
Total (USD)	71.4	109	39.7	38.6	19.1
Mauritius	21%	24%	8%	25%	54%
Bangladesh	15%	24%	4%	15%	-
Indonesia	15%	24%	38%	13%	24%
Singapore	1%	-	6%	12%	10%
China	37%	-	14%	12%	-

Source: IAM 2016

Seed cotton from farmers has to be ginned whereby cotton lint is separated from cotton seed. Hence, ginneries play an important role in the cotton sector. The cotton sector in Mozambique is regulated by a concession system, in which private ginning companies distribute inputs (cotton seeds, pesticides) to farmers within a specified area and in return obtain the exclusive right to buy back the seed cotton at harvest time. In 2015/16, there were 10 ginneries – 7 nationally and 3 internationally owned – active in Mozambique, supplied by over 150,000 smallholder cotton farmers, representing roughly 900,000 household members (IAM 2016). The government is involved in the regulatory set-up via IAM. This also involves the setting of minimum prices for seed cotton prior to the harvest period in cooperation with the farmers’ association (FONPA) and the ginners’ association (AAM). The local minimum prices are however closely linked to global market prices as the ICE futures price is used as a basis for their calculation which means that global (futures) price fluctuations largely influence production volumes (for more details see Staritz/Tröster

2015). The ginneries have different selling and development strategies. Some international commodity traders (e.g. Olam International) have no regional strategy with their international headquarter determining the distribution of the raw cotton. Currently all is exported to Asia. On the other hand, Plexus – an international cotton trader and the largest ginner in Mozambique (market share of 39% in 2014/15) – has established a direct collaboration with a T&A firm in Mauritius.

The T&A industry in Mozambique was destroyed during the civil war. There have been various government strategies to rebuild the T&A sector with an export focus with very limited success so far. Currently, there exist only up to eleven firms in the sector (some may however be inactive), the largest being Moztex and Mozambique Cotton Manufacturers (MCM). Moztex (owned by the Aga Khan Foundation) is the largest apparel firm and produces for the local market and for exports to South Africa. In 2013, three Portuguese firms invested in the textile company MCM. MCM currently produces mainly cotton yarn for the export to Portugal which can be also seen in Table 20. An increasing share of raw cotton used by MCM is sourced locally despite quality and transport issues related to the cotton producing areas being in the North and MCM located in the South close to Maputo. The remaining firms are Batista Salomão, Cicomo, Faumil-Fab-Uniformes, Fit for the Job, Gani Commercial, Maputo Clothing, Ninita, Nova Texmoque and Topa Mozambique. The currently planned T&A value-chain by Plexus in collaboration with the ‘Cotton Made in Africa’ initiative and specifically the Otto Group is an important new development, particularly given its focus on the whole value chain (from cotton through textile to apparel) and its link to an EU buyer; its actual outcomes however remain to be seen.

Table 20: Mozambique’s export of yarn and cotton yarn (million USD) ⁸⁵

	2011	2012	2013	2014	2015
Total Yarn	2.2	4.6	3.0	3.2	6.0
EU	2.0	1.7	2.2	2.3	4.7
Zimbabwe	0.0	0.0	0.0	0.0	0.7
South Africa	0.0	0.1	0.1	0.1	0.3
China	-	-	0.1	0.8	0.2
Mauritius	-	2.4	-	-	-
of which Cotton Yarn	0.0	2.5	0.2	0.8	3.2
EU	-	-	0.1	0.0	2.1
Zimbabwe	-	-	-	-	0.6
China	-	-	0.1	0.8	0.2
South Africa	-	-	-	-	0.2
Mauritius	-	2.4	-	-	-

Source: Comtrade 2016 (WITS)

In the short run, the EPAs affect the cotton sector in Mozambique only indirectly as the importance of the EPAs for the Mauritian T&A sector indirectly supports demand for raw cotton from Mozambique given the increased regional linkages. Ginneries with direct connections to the Mauritian market (e.g. Plexus) profit from market diversification to an important regional T&A exporter and hence more security, from higher margins by by-passing international commodity traders as they have direct links to T&A firms in Mauritius, and from some collaboration with Mauritian firms to improve the quality and quantity of cotton produced in Mozambique. However, initiating direct selling of cotton highly depends on the capabilities of the ginneries to market their cotton and deliver cotton reliably. This currently

⁸⁵ All export data reported in Section 3.4 are represented by imports of partner countries.

excludes locally owned ginners. Thus, support in developing particularly local marketing capabilities is crucial in addition to appropriate national policies with regard to cotton prices and extension services to stabilize volumes and the quality of cotton production. A well-designed cotton price stabilization mechanism as currently discussed by the government and local actors might be a useful tool to attract more farmers to cotton production and stabilize and increase the production of existing farmers as well as to secure incomes. Extension services are key to improve the quality of cotton production where potential cooperation in SPS issues on cotton seed as a priority product in the SADC-EPA (Annex VI) should be pro-actively utilized.

Currently, the SADC-EPA is of little importance for the T&A industry in Mozambique due to the lack of apparel exports and the very small textile exports to the EU. Furthermore, Mozambique already has DFQF access and the single transformation rule through EBA. The EPA nonetheless secures the DFQF market access to the EU and the single transformation rule for the future as EBA regulations can be changed unilaterally by the EU and eventually as Mozambique might graduate from its LDC status. The EPA thus preserves room for manoeuvre in the T&A sector in the medium to long term by securing zero tariff access and by allowing the use of imported textiles for the development of a labor intensive apparel export industry in addition to supporting linkages to a national textile sector. This however requires strong industrial policies by the government as market forces alone will not trigger such a development. The focus should be put on domestic investors but also on attracting regional apparel investors to invest in Mozambique, with a focus on Mauritian and South African investors that have invested in Madagascar as well as Lesotho and Swaziland respectively.

Mauritius

Mauritius has the most developed T&A sector and is the biggest exporter of apparel to the world and the EU in the SADC-region. The T&A sector has its roots in FDI from Asia, in particular Hong Kong and Taiwan, during the 1970s and 80s in the context of the creation of an Export Processing Zone (EPZ) and quotas in developed Asian apparel exporter countries in the context of the MFA, and preferential market access to the EU and the US – the latter through the African Growth and Opportunity Act (AGOA). Today, the majority of firms are locally owned. The T&A sector plays a crucial role in the economy, accounting roughly for 10% of total employment, 5% of value added at basic prices (MCCI 2016) and 32% of total exports in 2015 (UN Comtrade 2017). In 2015, Mauritius exported USD 391 million, half of its total exports of apparel and other made-up textiles to the EU (Table 21). The most important markets in the EU include the UK, France, Belgium, Italy and Germany. Exports to the EU nonetheless decreased in recent years due to (i) the phase out of the MFA (Multifibre Arrangement) and ATC in 2005 that ended quotas in the sector and hence increased the competitiveness of earlier quota-restricted Asian countries, (ii) a shift of labor-intensive apparel production to Madagascar due to lower labor costs and hence the establishment of regional value chains, (iii) decreasing demand in the EU in the context of the economic crisis, and (iv) a diversification of export markets to the US and most importantly to the regional market South Africa.⁸⁶

⁸⁶ The growth of South Africa as an export market in the 2000s has been triggered by (i) the SADC elimination of tariffs; (ii) the capability of Mauritian firms to meet SADC RoO requirements (double transformation) given its vertically integrated T&A sector; (iii) the lead time advantage as it is only six days away from South Africa by sea; (iv) the similarity between European and US buyers (e.g. volume, design, etc.); and (v) proactive marketing strategies (Staritz 2010).

Table 21: Mauritius' exports of apparel and other made-up textiles (million USD)

	2011	2012	2013	2014	2015
Total	888.5	832.7	859.7	875.5	803.2
EU	550.6	441.7	432.5	423.7	390.7
USA	163.2	163.1	191.3	230.4	221.7
South Africa	103.3	147.8	146.3	130.4	113.0
China	3.6	5.2	5.3	6.0	3.9
Seychelles	2.6	1.2	1.2	1.4	1.8

Source: UN Comtrade 2017 (WITS)

The Mauritian T&A value chain is globally integrated, but has also important regional links. Textile inputs (yarns and fabrics) are mostly sourced from Asia (India, China and Pakistan) and the EU (Table 22). An important share of firms is vertically integrated, producing also yarn and fabric in addition to apparel, including the two largest ones – CIEL and Compagnie Mauricienne de Textile (CMT). The cotton for vertically integrated T&A firms is also imported from the SADC region. In 2015, Mauritius imported USD 47 million of raw cotton (around 30 thousand tons), of which 35% are imported from Mozambique and 22% from Madagascar. The Mauritian T&A sector also has strong apparel linkages with Madagascar. Mauritian firms shifted parts of their apparel production to Madagascar to benefit from lower labor costs and geographical proximity. Hence, the export of fabric and other inputs such as accessories from Mauritius to Madagascar is important (see below).

Table 22: Mauritius' imports of cotton, yarn and fabric (million USD)

	2011	2012	2013	2014	2015
Total raw cotton	80.9	45.9	44.8	44.2	47.2
Mozambique	7.0	14.5	17.6	11.8	16.7
Madagascar	0.4	0.5	4.7	9.4	10.4
Tanzania	2.2	5.6	5.5	5.6	4.4
Zimbabwe	9.6	7.5	7.6	-	1.9
Zambia	28.7	8.1	4.5	3.3	-
Total yarn	122.0	99.2	97.3	94.6	76.1
India	50.8	36.2	41.1	37.2	33.1
China	16.3	19.1	19.7	19.1	14.4
Pakistan	11.6	7.5	5.8	10.0	6.1
EU	12.8	9.9	9.4	9.3	5.8
Thailand	8.7	5.6	3.4	1.5	1.4
Total fabric	160.6	173.8	171.5	167.6	152.4
China	98.2	105.5	111.4	108.1	101.8
EU	27.5	29.2	23.0	24.0	18.0
India	15.3	17.8	19.3	17.2	14.5
South Africa	2.0	2.7	2.0	1.8	1.7
Pakistan	3.4	2.7	2.2	2.8	1.5

Source: UN Comtrade 2017 (WITS)

The current market access provided by the ESA-EPA contributes importantly to the competitiveness of the Mauritian apparel sector in the EU since Mauritius does not have LDC-status. Firstly, the EU-oriented apparel sector in Mauritius profits from the EPA due to DFQF access to the EU market. MFN tariffs on exports to the EU would deteriorate the competitiveness of the apparel sector. Secondly, the EPA has benefitted the Mauritian apparel sector due to relaxed RoO, in particular the 'single transformation' rule. Single

transformation is of importance for apparel exporters that source textiles from Asia. The ‘full cumulation’ rules of the EPA are irrelevant in the context of single transformation; they would ensure flexibility in terms of regional sourcing even without the single transformation rule and hence particularly benefit firms that have shifted parts of their apparel production to Madagascar.

The ESA-EPA has thus directly contributed to the competitiveness of the Mauritian T&A sector and also indirectly to the creation of regional linkages (e.g. raw cotton imports from Mozambique and Madagascar, apparel production-nexus with Madagascar). The Mauritian T&A sector could play an even more prominent role in establishing regional value chains. Given the important role of locally owned and embedded firms in the country with high capabilities not only in T&A production but also marketing and close links particularly to buyers in the EU market but also the US and South African market, Mauritian firms secure access to GVCs and could develop further regionally focused production arrangements that are based on the competitive advantages of different countries in the region. Through geographical proximity, they could use technical and managerial skills available in Mauritius also in regional supplier locations as is currently done in Madagascar but could be extended for example to Mozambique. Locally owned firms could get access to GVCs through and learn from such regionally owned suppliers, which has been the case particularly through sub-contracting in Madagascar (Morris/Staritz 2014). Hence, any development strategy of a regional T&A sector should not only focus on LDCs but should see the strategic role of more developed regional suppliers such as Mauritius and also South Africa and focus on how they could be incentivized to become more locally and regionally embedded.

Madagascar

Madagascar is the second-largest apparel exporter to the EU in the SADC region and in SSA after Mauritius. The growth of the Madagascan apparel sector was mainly driven by FDI, in particular by European, Asian and later Mauritian investors, in the context of the EPZ regulation, MFA quotas and preferential market access to the EU and the US. Local investment is limited with the existing locally-owned firms largely exporting through sub-contracting for European owned firms. The foreign-owned firms are part of different value chains with distinct business strategies and end markets. While Asian owned firms overwhelmingly export to the US and many left when AGOA was withdrawn in 2009, European and Mauritian firms export to the EU and more recently also to South Africa. The sector plays an important role in the economy. In 2015, total apparel and other made-up textile exports amounted to USD 591.7 million which accounted for 25% of total exports. Nearly two-thirds of the apparel and other made-up textile exports were exported to the EU followed by South Africa and the US (Table 23). The recent re-emergence of exports to the US is connected to the reinstatement of AGOA eligibility after its suspension in the context of the political crisis in 2009 (USTR 2014).

Table 23: Madagascar’s exports of apparel and other made-up textiles (million USD)

	2011	2012	2013	2014	2015
Total	474.3	500.3	583.7	586.6	591.7
EU	362.1	353.7	423.8	412.5	383.0
South Africa	40.2	62.2	84.1	84.9	93.9
USA	41.7	42.8	21.6	20.9	53.4
China	2.7	3.9	4.6	6.0	7.8
Mauritius	0.9	1.4	3.4	5.8	4.7

Source: UN Comtrade 2017 (WITS)

Like Mauritius, Madagascar mainly sources yarn and fabric inputs from China, India, Pakistan and the EU. Mauritius is also an important provider of yarn (16% of total imports) and fabrics (18%), underpinned by the investments of Mauritian firms in Madagascar and their existing production linkages with Mauritius (Table 24). There are no other noteworthy linkages with the SADC region in the apparel sector due to the lack of vertically integrated firms with the exception of one firm (SOCOTA) that largely uses local cotton.

Table 24: Madagascar's imports of yarns and fabrics (million USD)

	2011	2012	2013	2014	2015
Total yarn	115.1	87.1	77.7	74.9	68.5
China	58.8	47.2	34.4	27.4	28.1
EU	13.4	13.6	11.7	12.0	11.6
Mauritius	20.1	11.9	15.8	13.9	11.2
India	6.2	7.2	8.2	11.2	8.6
USA	3.0	1.9	1.6	4.2	2.7
Total fabric	168.8	155.5	198.6	257.9	237.7
China	23.5	29.0	28.8	45.3	49.8
Mauritius	27.4	21.8	32.9	46.6	42.0
EU	61.8	17.9	27.8	24.4	27.0
Pakistan	11.5	6.7	10.8	13.7	13.1
India	3.7	7.2	8.6	11.5	8.4

Source: UN Comtrade 2017 (WITS)

The Madagascan apparel sector currently does not directly benefit from the DFQF access or the 'single transformation' rule of the ESA-EPA due to its LDC-status; similar rules would apply without an EPA as well as through EBA.⁸⁷ The key improvements compared to the situation without an EPA are the more flexible cumulation rules which are however irrelevant given the single transformation rule. The EPA also safeguards these preferential market access conditions in the long-term as this cannot be unilaterally changed by the EU and in case of a potential loss of the LDC-status in the future. However, as Mozambique, Madagascar benefits indirectly from the ESA-EPA as the importance of the EPA for the Mauritian T&A sector indirectly supports demand for raw cotton from Madagascar. The effects on apparel exports are ambivalent. On the one side a more competitive position of the Mauritian T&A sector might increase overall investments of its T&A firms, including in Madagascar, but on the other side if Mauritius had no DFQF access to the EU market Mauritian T&A firms might importantly upgrade their Madagascan production locations and shift most of their production for the EU market to Madagascar. But in the latter case, the overall competitiveness position of the Mauritian T&A sector might also be severely affected with overall negative effects on Madagascar's apparel sector.

Lesotho

Lesotho's apparel sector slowly started to develop in the early 1980s but only really took off with the coming into being of AGOA in the early 2000s. From 2000 onwards AGOA has provided DFQF access to the US market coupled with non-restrictive RoO as the Third Country Fabric (TCF) derogation allowed for single transformation for lesser developed countries. This combined with quota provision through the MFA started a growth path of apparel exports to the US in Lesotho. Several firms left in the context of the MFA phase-out and the global economic crisis. However, more recently, the South African market increased in importance accounting today for 23% of total apparel exports with the rest going

⁸⁷ During the conclusion of the interim-EPAs in 2007/08, GSP-RoO did not yet include single transformation for LDCs.

to the US (Table 25). There are no locally owned firms in the sector; exports come from either Taiwanese or other Asian firms that export largely to the US and South African firms that export to the South African market. The apparel sector is of crucial importance accounting for 42% of total exports (UN Comtrade 2017).

Table 25: Lesotho's exports of apparel and other made-up textiles (million USD)

	2011	2012	2013	2014	2015
Total apparel	405.8	382.2	409.5	405.9	412.4
USA	325.6	300.9	321.3	299.3	310.4
South Africa	60.4	63.5	73.6	94.5	92.7
Tanzania	0.2	0.0	0.4	0.4	0.4
Zimbabwe	0.9	0.5	0.9	1.2	0.3
EU	1.6	2.1	0.7	0.2	0.3

Source: UN Comtrade 2017 (WITS)

In the EU market, after the introduction of the revised GSP-RoO in 2010, DFQF and single transformation has also been available for the apparel sector in Lesotho due to its LDC-status. However, exports to the EU remain marginal and hence up to now the EPA has no impacts on the apparel sector in Lesotho. This is related to the ownership structure of the Lesotho apparel sector and the strategic orientation of the foreign apparel firms and their long relationships with US- or South African-buyers. Hence, the case of Lesotho highlights the importance of ownership structures and specific end market requirements and GVC dynamics to understand end market concentration and limited local linkages in T&A sectors. There are three different types of foreign investors in Lesotho: transnational producers, more embedded global investors and South African regional investors (Morris/Staritz 2016).

The transnational producers in Lesotho are Taiwanese-owned firms. They are part of tightly organized production networks where the head offices in Taiwan provide all higher value added functions and their apparel manufacturers around the globe pursue labor-intensive cut-make-trim (CMT) activities with limited decision-making power. The firms have a global strategy that is exporting long-run basic products to the US. These investors would have the capabilities to diversify export markets to the EU but this is not part of their global strategy, particularly as volumes are seen as too small in EU markets compared to the large US single market. Asian LDCs have also duty free access to the EU (and not for the US), which is why these investors prefer supplying the EU market through their more competitive production location in these countries.

Another much smaller group of Asian firms is not owned by transnational producers but are single operations with more local decision-making power. These firms overwhelmingly export to the US market but most have tried to diversify export markets to South Africa with limited success given difficulties in establishing links to South African retailers and their limited capabilities. These firms might be interested in the EU markets but would require support to particularly enter value chains of EU buyers.

South African regional investors have invested in Lesotho since 2005/06 in order to benefit from low-cost labor in proximity to their end market South Africa which they supply almost exclusively. Most inputs are sourced from Asia, but some firms also use regional fabrics, in particular from South Africa. Through these investments important regional links have developed which make the Lesotho apparel sector more sustainable than the AGOA-dependent US-focused value chain. Due to their strong linkage with the South African market, these firms do not seem likely to diversify their export markets to the EU.

The example of Lesotho reveals the importance of the strategic orientation of foreign investors and their buyer-relations in GVCs. Despite existing preferential market access to the EU since almost a decade (MAR/EBA/EPA) firms so far have not shifted exports to the EU market. It remains to be seen in how far the ratification of the EPA and the long-term safeguarding of preferential market access to the EU (as Lesotho might lose LDC status in the near future) will awaken the interest of firms in the future. A limiting factor is the lack of local firms whose decisions are not subsumed under the global or regional business strategies of foreign headquarters – be it transnational global US-focused strategies or regionally confined strategies. For Lesotho as a sustainable apparel sourcing country, market diversification is of crucial importance but not in the strategies of the foreign firms being located in Lesotho.

Swaziland

Also the Swazi apparel sector only took off in 2001 with AGOA. The vast majority of investors came from Taiwan and exports were almost exclusively geared to the US market. Several Taiwanese firms have left in the context of the MFA phase-out and the global economic crisis. However, like in Lesotho, South African investments have been increased in order to take advantage of lower operating costs, the more flexible labor market compared to South Africa and the DFQF market access within SACU in order to supply South African retailers (Morris et al. 2011). As a consequence, exports to South Africa increased significantly since 2006/07. Since then, South Africa has grown to the most important export market for apparel products, with a share of 72% in 2014 (Table 26). The recent drop of apparel exports to the US from USD 57.4 million in 2014 to USD 2.7 million in 2015 has been caused by the withdrawal of Swaziland’s AGOA eligibility in January 2015 due to workers’ rights violations (USTR 2014). Accounting for 9% of total exports, the apparel sector is important for the overall economy but less so than in Lesotho (UN Comtrade 2017). As in Lesotho, locally-owned firms have no important role but there is at least one local exporting firm in Swaziland.

Table 26: Swaziland’s exports of apparel and other made-up textiles (million USD)

	2011	2012	2013	2014	2015
Total apparel	176.5	181.4	179.7	212.1	151.9
South Africa	94.3	118.1	128.3	153.3	146.3
USA	80.2	59.9	50.0	57.4	2.7
Zambia	-	0.0	0.1	0.1	1.3
EU	0.2	0.0	0.1	0.0	0.9

Source: UN Comtrade 2017 (WITS)

In the EU market, DFQF market access and single transformation RoO have existed since the signature of the iEPA at the end of 2007, with a brief interruption in 2013/14 where MAR was suspended to put pressure on ACP countries to negotiate an EPA. Hence, these market access conditions are directly related to the EPA as Swaziland has no LDC status and hence cannot access these preferences through EBA. However, exports to the EU remain insignificant.

Like in Lesotho, ownership structures and specific end market requirements and GVC dynamics are important to understand the end market concentration towards the US and South Africa as well as weak local linkages. Transnational Taiwanese producers are integrated in the global sourcing and merchandising networks and have tried to extract rents from preferential market access to the US via AGOA. Some more embedded Asian firms have diversified from the US to the South African market with much more success than in

Lesotho. South African-owned firms, on the other hand, are exclusively focused on supplying South African retailers.

However, there is a much stronger push to diversify end markets in Swaziland than Lesotho given the recent loss of AGOA. Some transnational producers are talking about closing their plants, but some more embedded Asian investors are interested in the EU market, though with no tangible results so far. It remains to be seen in how far (i) existing firms, particularly the more embedded foreign firms and the one locally-owned firm, develop a strategy to increase exports to the EU and/or (ii) the EPA attracts new investments in the sector. On the government side, the importance of diversifying end markets is clearly seen. It is stressed that not only the reinstatement of AGOA should be in the focus but also the negotiation and 'use' of other trade agreements such as the EPAs (ITD 2015).

3.4.4. Conclusion

The impact of the SADC- and ESA-EPA on the regional T&A sector is significant in case of non-LDCs and only indirect in the case of LDCs due to their preferential market access conditions in the context of EBA. But also for these latter countries, the EPAs secure preferential market access to the EU in the long term and in the case of losing the LDC status.

The key beneficiary of the EPAs in the region is Mauritius. Mauritius is a non-LDC and has a well-established T&A sector with nearly half of its exports going to the EU. But given the important regional linkages of the sector, in particular with the cotton sector in Mozambique and the apparel sector in Madagascar, this has important indirect effects on other countries. Mozambique is an LDC and the T&A sector is very small in scale. However, the cotton sector benefits from cooperation with and direct selling to vertically integrated Mauritian T&A firms. Madagascar has a large-scale apparel sector with roughly two thirds of its exports going to the EU. The benefits for Madagascar's apparel sector are however indirect due to its LDC status and accrue due to the production linkages with Mauritius.

The effects of the SADC-EPA on Swaziland (non-LDC) and Lesotho (LDC) are negligible, since both countries mainly export to the US and South Africa. The lack of exports to the EU can be explained by the strategies of foreign-owned apparel firms, Taiwanese and South African, and their specific integration in value chains geared to the US and South African market respectively. It remains to be seen in how far the loss of Swaziland's AGOA eligibility will change the strategic orientation of more embedded apparel firms towards the EU.

The EPAs, while offering potential, will not alone trigger the development of more locally embedded T&A sectors. This will require strategic and strong industrial policies at the national and regional level with a focus on supporting regional T&A as well as cotton sectors. Development cooperation in the context of the EPAs could play a crucial role in this regard. The policy focus should be put on local firms but also on attracting regional apparel investors as well as more embedded foreign investors. More established regional players, especially firms in Mauritius and South Africa, could play an important role in further developing regional value chains. Hence, any development strategy of a regional T&A sector should not only focus on LDCs but also should see the strategic role of more developed regional suppliers and focus on how they could be incentivized to become more locally and regionally embedded. To ensure a sustainable development of the apparel sector that also leads to positive outcomes for workers, the Sustainability Chapters of the EPAs should be used proactively to improve working conditions and labor standards. This will require support from development cooperation as well as EU-based NGOs for their African partner country counterparts.

4. IMPLICATIONS OF THE ECOWAS-EPA ON GHANA AND THE WESTERN AFRICAN REGION

The assessment of potential effects of the implementation of the ECOWAS-EPA on the economies in the Western African region comprises four parts: Firstly, a short overview of the current economic and particular trade structure of Ghana is provided. Secondly, the results of simulations with the ÖFSE Global Trade Model with regard to macroeconomic as well as sectoral changes due to the tariff liberalizations agreed in the ECOWAS-EPA are reported and interpreted. Thirdly, the general perceptions on the opportunities and constraints related to the implementation of the ECOWAS-EPA for Ghana are presented. Finally, two case studies on the cocoa as well as the mango value chains draw conclusions on the potential effects of the ECOWAS-EPA in a specific sector context highlighting the importance of specific sector and value chain dynamics.

4.1. Economic overview of Ghana

The economy of Ghana has experienced steady growth rates in the last two decades, with an average real GDP growth rate of 6% since 1997 (WDI 2016). Consequently, GDP per capita has been on the rise and accounted for USD 1827 in 2013. Ghana lost its LDC status in 2010 after technical statistical adjustments revealed that GDP per capita was higher than previously calculated (Moss/Majerowicz 2012). Growth accelerated between 2009 and 2013 supported by increasing hydrocarbon production and exports. Cocoa, oil and gold are the key export sectors accounting for more than 80% of total exports in recent years (UN Comtrade 2017). Fiscal and current account deficits, a continuing depreciation of the New Ghanaian Cedi (GHS), high inflation rates, declining reserves as well as a weak electricity infrastructure continued to be the key concerns of the Ghanaian economy (IMF 2015a).

Growth decelerated in 2014 to 4% due to contractions in industrial and service sectors due to declining domestic demand, increasing power outages and – most importantly – the currency crash of the Cedi leading to increasing input prices (IMF 2015a). The depreciation of the Cedi increased inflation rates to 17% in 2015. External debt stocks in percent of gross national income increased from 36% in 2013 to 56% in 2015. In April 2015, the IMF approved a three-year loan of SDR 664.2 million (roughly USD 918 million) under the Extended Credit Facility (ECF) in support of Ghana's medium-term economic reform program (incl. fiscal consolidation, wage restraint, budget transparency, inflation targeting, etc.). The government was nonetheless encouraged to protect real income of the poor via priority spending (such as the social cash transfer program Livelihood Empowerment Against Poverty – LEAP) (ibid.).

The EU is the second largest trading partner (21% of total trade) behind China (24%) and second largest export market (23%) behind India (EC DG Trade 2017). Ghana had a trade deficit of EUR 397 million in 2015 vis-à-vis the EU (Table 28). The key export products to the EU include cocoa beans, processed cocoa products, processed tuna and crude petroleum oil. The exports of petroleum oil started in 2011 after the discovery of offshore oil fields. The largest imports from the EU, on the other hand, include processed petroleum oil, worn clothing, medicaments and goods used in the transportation, manufacturing and construction sectors

Table 27: Key economic indicators of Ghana

	2010	2011	2012	2013	2014	2015
Nominal GDP (current GHS, millions)	46,042	59,816	75,315	93,416	113,343	138,749
Nominal GDP (current USD, millions)	32,175	39,566	41,940	47,805	38,617	37,543
GDP per capita (current GHS)	1893	2400	2948	3570	4231	5062
GDP per capita (current USD)	1323	1587	1642	1827	1442	1370
Real GDP growth (annual %)	7.9	14.0	9.3	7.3	4.0	3.9
Inflation, consumer prices (annual %)	10.7	8.7	9.2	11.6	15.5	17.1
Current account (net, % of GDP)	-8.5	-9.0	-11.7	-11.9	-9.6	-7.5
External debt stocks (% of GNI)	28.8	29.3	32.2	35.8	49.8	56.3
Foreign direct investment, net inflows (% of GDP)	7.9	8.2	7.9	6.8	8.7	8.5
Exchange rate (GHS per USD, period average)	1.4	1.5	1.8	2.0	2.9	3.7

Source: WB-WDI 2016

Table 28: EU-Ghana trade (million EUR)

	2000	2005	2010	2015
Total exports to the EU	1,178.8	987.8	1,474.7	2,644.7
Cocoa beans	239.9	488.3	763.1	854.2
Petroleum oils (crude)	-	-	0.0	759.3
Cocoa paste	9.0	31.3	154.4	208.0
Cocoa butter	36.4	29.1	114.2	179.0
Prepared or preserved fish	70.4	66.1	94.7	170.6
Cocoa powder	0.1	0.1	25.1	49.1
Total imports from the EU	1,281.7	1,252.2	2,149.7	3,041.2
Petroleum oils (excl. crude)	108.7	39.5	314.6	677.1
Worn clothing	21.8	45.2	63.7	89.5
Medicaments (mixed or unmixed)	26.7	23.4	79.1	84.9
Flexible tubing of base metal	0.0	0.1	66.9	74.7
Machinery parts (for HS 8425 to 8430)	21.5	26.9	63.3	60.9
Tubes, pipes and similar of iron or steel	1.6	0.9	7.0	59.7
Ghanaian trade balance with the EU	-102.90	-264.40	-675.00	-396.50

Source: Eurostat 2016

According to the Ghana Poverty and Inequality Report based on the 6th Ghana Living Standards Survey (Cooke/Hague/McKay 2016), Ghana's national level of poverty fell from 57% to 24% between 1992 and 2013; however, the annual rate of poverty reduction slowed down substantially. Extreme poverty has been cut in half from 17% in 2006 to 8% in 2013. Poverty in Ghana nonetheless remains a key issue despite strong growth rates in recent years due to high income inequality between households as well as urban and rural areas. Overall, the report concludes that Ghana's growth has not been inclusive, since the wealthiest have benefited disproportionately more than the poor.

Households in rural areas have a substantially higher (38%) rate of poverty than urban areas (11%) (ibid.). Despite increasing urbanization in the last decades, the rural population continues to amount for 46% of the total population (FAO 2017). The Northern, Upper East and Upper West Regions continue to have the highest poverty rates

(Cooke/Hague/McKay 2016). The Northern Region has seen poverty fall only marginally from 56% to 50% since the 1990s. Despite the decreasing share of agricultural value added in GDP from 31% in 2010 to 21% in 2015, the labor-intensive agricultural sector provides the income for almost the entire rural population. In the agricultural sector, women, children, elderly and persons with disability can be identified as the most vulnerable groups. For example, it is estimated that roughly 28% of all Ghanaian children live in poverty today and that they are 40% more likely to live in poverty compared to adults (ibid.).

4.2. ÖFSE Global Trade Model: Simulation results for the ECOWAS-EPA

4.2.1. Description of methodology and calibration

The assessments of the economic effects of the three Economic Partnership Agreements on the specific regions are based on the ÖFSE Global Trade Model, a structuralist Computable General Equilibrium (CGE) model. A detailed model description is provided in section 3.2.1.

The database for the assessment are multi-country data for the year 2011 provided by GTAP (Global Trade Analysis Project, Version 9), which allows for explicit modelling of the effects on bilateral trade flows due to changes in trade policies. For this analysis, the model is calibrated for eleven countries and regions that cover all global economies and trade flows.

The regions for the ECOWAS-EPA include the EU, Ghana (GH), Nigeria (NI), Côte d'Ivoire (CI), Senegal (SG) and an aggregate of all other eleven ECOWAS member states and Mauritania (EC). In addition, the SADC (SA) and ECA (EC) regions as African trading partners as well as the United States (US), South East Asia (including China, SE) and the Rest of the World (RW) are included. For all countries/regions, 20 sectors are covered focusing on agri-food and manufacturing sectors (see Table 29 and Table 1(II) in Annex II). Table 29 also shows the applied trade price elasticities that are also derived from the GTAP database.

Based on tariff dismantling schedule of the ECOWAS-EPA agreement (Annex II), all tariff reductions for the individual countries have been estimated as trade-weighted changes to base year tariff levels. As import patterns of the single ECOWAS members with the EU differ, the liberalization of tariff lines scheduled in the EPA results in variations in the effective trade liberalization by trade volume in each country. In the case of ECOWAS, 74.9% of import tariff lines against EU products are liberalized which is equivalent to 82.3% of the trade volume in the period 2012 to 2014. (see also section 2.1.). As shown in Table 29 tariff reductions for Ghana differ by sector (column Tariff reduction in percent) determined by the ECOWAS-EPA liberalization scheme and actual trade volumes. Overall, tariff liberalization in Ghana affects 82.6% of its import volume with the EU.

With respect to scenario design, the current situation is somewhat complicated by the iEPAs already in force between the EU and Ghana and Côte d'Ivoire, respectively. Thus, ECOWAS member countries are split into one group with an iEPA and a second group without an iEPA, the latter group currently enjoying unilateral market access granted by the EU, in other words DFQF access for the large majority of products. Given that the iEPAs with Ghana and Côte d'Ivoire are only in the early phase of implementation, our baseline scenario assumes DFQF access for all ECOWAS countries to the EU, but no tariff liberalization by Ghana and Côte d'Ivoire.

Upon this basis, three scenarios are considered to highlight possible trade liberalization effects:

- 1) “ECOWAS-EPA”: the regional EPA enters into force and the EU and all ECOWAS-EPA-Members reduce tariffs as scheduled. The regional EPA thus also replaces the iEPAs with Ghana and Côte d’Ivoire.
- 2) “EU & Ghana”: in the absence of a regional EPA, only the EU and Ghana liberalize trade within the framework of the iEPA already in force. Thus, in contrast to the baseline scenario, in this case Ghana implements all its liberalization commitments under the iEPA.
- 3) “GSP”: in the absence of both a regional EPA and iEPAs, Ghana, Nigeria and Côte d’Ivoire fall under EU GSP market access, while the other ECOWAS members are granted DFQF access by the EU. Though unlikely, this scenario describes a potential fallback option in case the EPA agenda breaks down completely, in which case Ghana and Côte d’Ivoire also resign from the iEPAs, e.g. for reasons of regional solidarity.

The model simulations are based on changes in tariffs only. Possible long-run effects on export sectors in EAC-EPA countries supported by development cooperation efforts during EPA implementation or higher investment triggered by the agreement are not part of the analysis. A further limitation of the simulations, as in most CGE models, is that effects of tariff reductions on products with low or none trade flows are underrepresented due to use of past trade data. The simulation results should therefore be carefully interpreted as effects of the asymmetric tariff liberalization.

Table 29: Sectoral Overview and Calibration Ghana

		Import share	Import Price Elasticity		Base year tariffs			Tariff reduction	
		(imports by GH from EU)	by sector	Weight	Tariff	Weight	In %*	Weight	Share
1	Cereals	0.9	1.8	0.016	10.2	0.035	-99	-0.9	1
2	VegFruit	0.0	0.9	0.000	17.9	0.006	-19	0.0	0
3	OthAgri	0.2	2.2	0.003	6.9	0.002	-99	-0.2	0
4	OthCrops	0.1	1.6	0.001	5.6	0.005	-99	-0.1	0
5	Fishery	0.0	0.6	0.000	3.3	0.000	-99	0.0	0
6	Commodities	0.1	2.6	0.002	10.0	0.005	-99	-0.1	0
7	Meat	1.9	2.1	0.041	19.9	0.064	-3	-0.1	0
8	Sugar	0.2	1.4	0.003	10.0	0.010	-4	0.0	0
9	Dairy	0.8	1.8	0.010	19.7	0.056	-75	-0.6	1
10	Foods	3.1	1.2	0.018	13.8	0.376	-39	-1.2	2
11	BevTab	1.6	0.6	0.031	17.8	0.291	-12	-0.2	0
12	Textiles	0.4	1.9	0.007	16.7	0.080	-16	-0.1	0
13	Apparel	0.2	1.9	0.004	18.2	0.073	-13	0.0	0
14	Leather	0.2	2.0	0.002	18.6	0.059	-98	-0.2	0
15	Petroleum	23.9	1.1	0.394	6.1	0.080	-100	-23.9	34
16	Chemicals	9.7	1.7	0.169	7.5	0.457	-60	-5.8	8
17	Machinery	15.3	2.0	0.311	4.3	1.357	-87	-13.4	19
18	Metals	0.4	1.9	0.007	10.3	0.017	-97	-0.4	1
19	OthManu	26.0	1.8	0.459	9.6	2.032	-90	-23.3	33
20	Services	15.1	1.0	0.144	10.2	0.000	0	0.0	0
Sum		100		1.62		5.0		-82.8**	100
Average			1.6		9.0		-64		

Notes: Import share, import price elasticity and tariffs are derived from GTAP database. Tariff reductions based on own estimations. *Tariff reduction in percent compared to current tariff rate. **Trade-weighted by trade in goods
Source: GTAP database and own calculations.

Table 29 shows that the most important import sectors for EU goods to Ghana are petroleum products, machinery and other manufacturing. As liberalization is particularly strong in these sectors, effects are concentrated in these sectors (last column ‘Share’). The strong trade-weighted liberalization in certain agricultural sectors shows that most tariff lines allocated to the GTAP sectors are liberalized. The expected effects are however small due to limited role in overall imports.

4.2.2. Analysis of the model results

In the following, macroeconomic as well as sectoral results are presented with a focus on the effects of tariff reductions in the context of the ECOWAS-EPA for Ghana. The results on sectoral changes are derived for the first scenario only, which is the central scenario.

Macroeconomic results

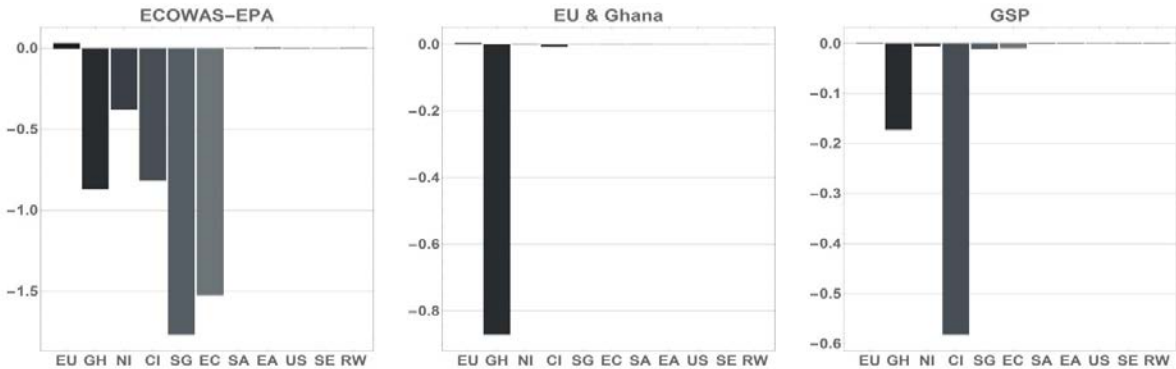
The main macroeconomic results from the model simulations focus on the changes in real GDP and the contributions to these effects based on the income and the expenditure approach. Most importantly, the overwhelmingly one-sided liberalization with selected tariff reductions in the ECOWAS-EPA countries increases imports from the EU which drives macroeconomic and sectoral effects.

Growth of country real GDP, three scenarios

Figure 8 shows model output in the aggregate on a country (or region) level for all three scenarios. Each bar represents the real GDP growth rate of the country in response to the applied liberalization scenario. The left panel, for example, shows model outputs for the ECOWAS-EPA scenario (‘ECOWAS-EPA’), in which EU and all of the ECOWAS countries liberalize. The leftmost bar shows a very small positive growth rate for the EU of 0.03%, the following bar a negative growth rate of -0.87% for Ghana. Nigeria, Côte d’Ivoire, Senegal and the rest of ECOWAS experience a contraction of -0.38%, -0.82%, -1.77% and -1.55%, respectively. The results also reflect the different dependences on imports from the EU and trade-weighted tariff levels. For the total ECOWAS-EPA region, GDP declines by 0.61%.

The effects in GDP growth in the ‘EU & Ghana’ scenario are very similar to the first scenario. The GSP scenario differs significantly from other scenarios. The scenario is defined for Ghana, Nigeria and Côte d’Ivoire. However, only GH (-0.17%) and CI (-0.58) suffer due to the contraction in exports: Nigeria largely exports petroleum and related products, which are not subject to increased tariffs under a GSP scenario.

Figure 8: Growth of country real GDP (at factor costs) in three scenarios



Notes: Scales on the y-axis differ for the single scenarios.
Source: CGE calculations

In the first two scenarios, Ghana's real GDP shrinks because liberalization substitutes imports from the EU for domestic economic activity: reduced prices of EU goods lead to an increase in imports. Lower tariffs decrease firm's (non-factor) costs, and thus lead to a ceteris paribus increase in real incomes of households. However, if factor demand decreases as well, household incomes fall. In these results, the latter effect clearly dominates the former, and consumption demand falls.

In the case of the GSP scenario, EU tariffs on exports from Ghana, Nigeria and Côte d'Ivoire would depress exports from these countries leading to a fall in aggregate income. Consumption and imports decline consequently. These linkages are emphasized in Figure 9 and Figure 10.

Similar to the outcomes in the SADC-EPA simulations (see section 3.2.2.), the effects in the 'GSP' scenario differ among the selected countries due to their specific export structures. While GDP in Ghana and Côte d'Ivoire is negatively affected by higher EU tariffs, Nigeria's GDP is hardly affected with crude oil as its major export good facing no tariffs also in the GSP system. It is important to note however that the underlying causes for the outcomes in the EPA scenarios and the GSP scenario differ fundamentally. While negative EPA effects are largely caused by import effects, GSP effects are driven by changes on the export side – as shown in detail below for the case of Ghana. Taking into account the comprehensive effects of the EPAs, including in particular enhanced development cooperation, the GSP scenario should not be interpreted as polar opposite to the EPA case.

Growth contributions of incomes and expenditures

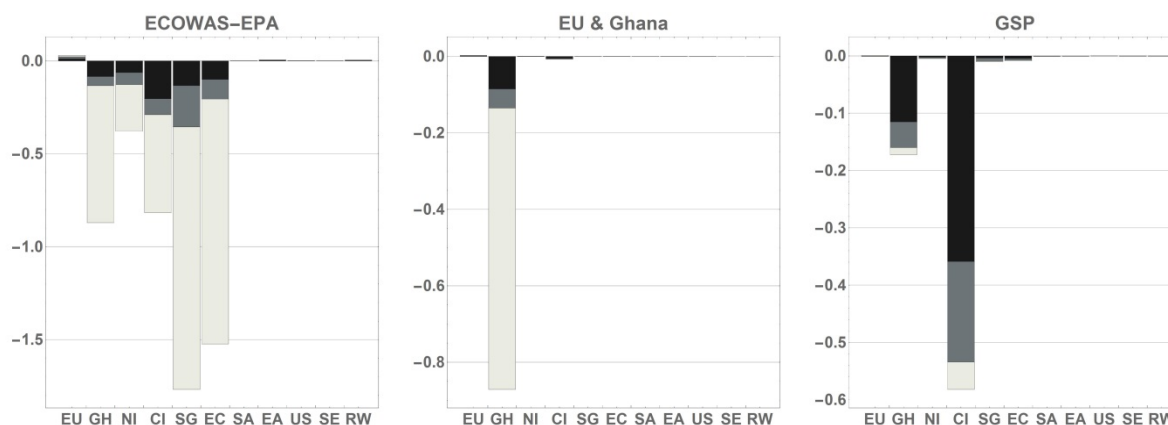
Figure 9 and Figure 10 contain the same (and more) information as Figure 8. First, the total bar heights in Figure 8, 9 and 10 are identical, i.e. -0.87% for Ghana in the first scenario. GDP can be decomposed either into incomes – private and public – or expenditures – consumption, public expenditures, investment, and net exports.

Thus, Figure 9 represents the income decomposition, where private incomes are the sum of total wages and profits, and public income are indirect taxes and tariffs. Consider Ghana, in the leftmost panel under the 'EU & ECOWAS' scenario. Private incomes – wages and profits – decrease by -0.08% and -0.05%, whereas public income, due to the reduction in tariff revenue, falls by -0.74%. Thus, the vast majority of the contraction in GDP is driven by the fall in public income. The sum amounts to the aggregate number (-0.87%) of Figure 8.

Analogously, Figure 10 shows the growth contributions of the endogenous components of demand: black represents consumption (-0.09%), dark gray exports (-0.01%) and light gray imports (-0.77%). Again, the sum, given small rounding errors, is -0.87%.

Note, for comparison, the effect of the GSP scenario: the increase in tariffs in the EU on Ghana's exports drives results. Thus, wages and profits as well as total tariff and indirect tax generation in Ghana fall (see Figure 9, rightmost panel); and these changes in factor and public incomes are driven by the contraction in exports and the concomitant multiplier effects on imports and consumption (see Figure 10; rightmost panel).

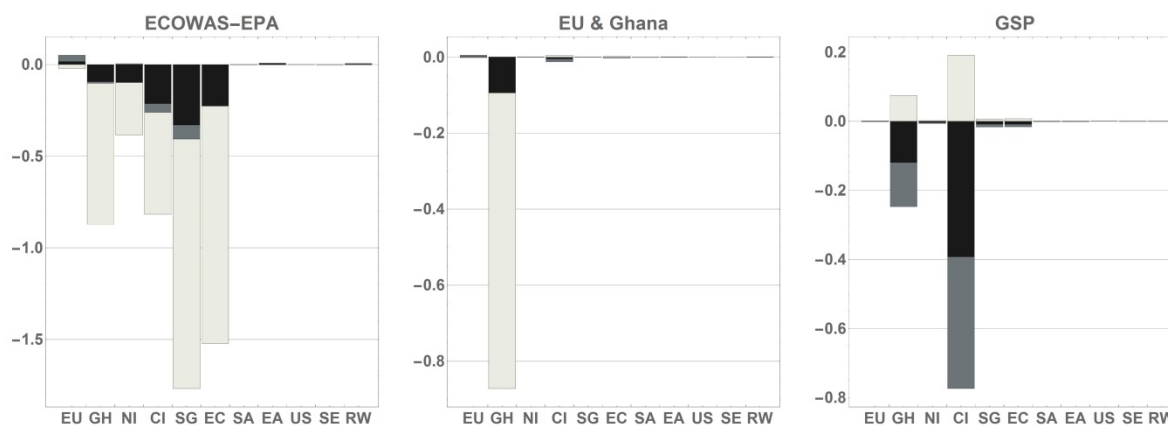
Figure 9: Growth of country real GDP in three scenarios (income side)



Notes: Decomposition of growth from the income side. Black represents growth contribution of total wages, dark gray profits, and light gray indirect taxes and tariffs.

Source: CGE calculations

Figure 10: Growth of country real GDP in three scenarios (expenditure side)



Notes: Decomposition from the expenditure side. Black represents growth contribution of real consumption, dark gray real exports, and light gray real imports.

Source: CGE calculations

These decompositions highlight the above mentioned causal linkage for the scenarios 1 and 2. Firm costs fall as tariffs are reduced, but the resulting surge in imports reduces factor demand as imports substitute for domestic value added. Further, the price reductions are in total too insignificant to affect export competitiveness. Thus, net exports fall, and the fall in value added is reflected in a contraction in household income and therefore consumption. The driving factor in Ghana is tariff reduction on the income side, and the import surge on the expenditure side.

Effects on trade flows

As highlighted in Figure 10, changes in imports largely contribute to the changes in real GDP in the ECOWAS-EPA countries, mainly driven by higher imports from the EU. As Table 30 shows, exports from the EU to Ghana increase by more than 7.7%, while exports to the EU from Ghana change slightly (0.06 %) as expected from one-sided liberalization. Most importantly, within the ECOWAS-EPA intra-region trade declines due to trade diver-

sion effects. Thus, Ghana’s exports and imports to and from other ECOWAS-EPA countries decrease by 0.81% and 0.53%, respectively. In total this results in a loss in aggregate exports (-0.03%), while aggregate imports increase by 1.65%.⁸⁸

Table 30: Changes in inter-regional trade flows

	EU	Ghana	Other ECOWAS-EPA	All other regions	TOTAL
EU	0.05%	7.69%	8.36%	0.00%	0.08%
Ghana	0.06%		-0.81%	0.00%	-0.03%
other ECOWAS-EPA countries	0.10%	-0.53%	-0.65%	0.00%	0.02%
All other regions	0.05%	-0.96%	-0.91%	0.00%	-0.10%
TOTAL	0.05%	1.65%	1.52%	1.62%	

Notes: Exporting countries/regions are in the first column and importing countries/regions in the following columns. Thus, exports from the EU to Ghana increase by 7.69% or respectively imports by Ghana from the EU increase by 7.69%.

Source: CGE calculations

Changes in macro balances

In contrast to standard CGE models, the ÖFSE Global Trade Model includes changes in important macroeconomic balances, namely the change in net exports (foreign balance), the change in the private balance and the change in the public balance, all relative to GDP.

Figure 11 details aggregate country results from a different perspective. Model equilibrium in the market for goods and services occurs when demand is equal to supply. An equivalent way of saying the same thing is that all demand injections equal leakages, or, more specifically, that the sum of the differences between injections and leakages of private, public and foreign ‘institutional sector’ is equal to zero.

In other words, both before and after the application of the liberalization scenario, the sum of net exports or the *foreign balance* (E-M, black), the *private balance* (I-S, dark gray) and the *public balance* (G-T, light gray) is zero. Note that the public balance is the negative of the public deficit. Following convention, the balances are defined as difference between injection and leakage, thus determining a *net borrowing flow* of the institutional sector.⁸⁹

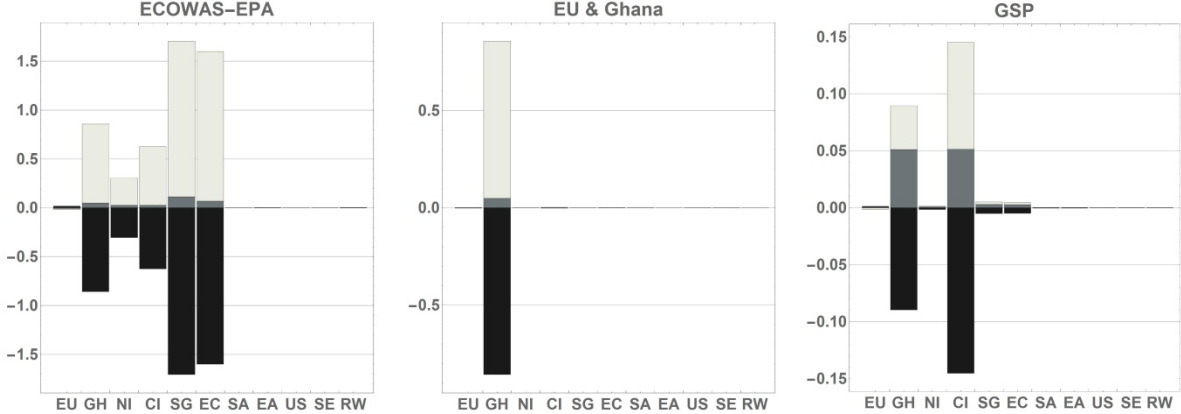
Figure 11 shows the *changes* in these balances, normalized by pre- and post-liberalization GDP. Since the pre- and post-liberalization sum of the balances is zero, the sum of these changes will be zero as well. Consider Ghana in the right hand panel, which shows simulation results for scenario 3 (GSP). Following liberalization, Ghana’s net exports relative to GDP fall by 0.09%. Put differently, the foreign deficit rises and thus foreign net lending increases (and foreign net borrowing decreases). This buildup in external liabilities finances increased net borrowing by private and public actors. The dark gray private balance increases by 0.05% relative to GDP, reflecting the *fall in private saving*, following the fall in income and given the exogenous flow of investment. Similarly, the public balance deteriorates by 0.04% of GDP, following the decrease in revenue instruments as well as

⁸⁸ Please note that Figure 10 reports *contributions* to growth in real GDP, while Table 30 shows changes in real trade flows.

⁸⁹ In the case of a trade deficit, the foreign sector has negative net borrowing, which is equivalent to net lending from the rest of the world to the country under consideration. Note further that in the foreign balance both expenditure components are endogenous, but that in private and public balance only leakages are endogenous – public expenditure G and firm investment I are held constant.

economic activity, and given the exogenous flow of public expenditures. (See also section 6.3. for more details on loss in tariff revenues).

Figure 11: Change in sectoral balances relative to GDP, three scenarios



Notes: Black represents the change in net exports relative to GDP, dark gray the change in private balance relative to GDP, and light gray the public balance relative to GDP. Each balance is defined as a net borrowing flow, i.e. the difference between injections and leakages.

Source: CGE calculations

In summary, across Figures Figure 8 to Figure 11, the results clearly suggest that unilateral effective liberalization in ECOWAS-EPA countries vis-à-vis the EU leads to import surges. The increased imports are not balanced by increased demand either from consumption or exports, so that aggregate value added falls. Further, unilateral liberalization leads to a worsening of the public balance, threatening already limited fiscal capacities.

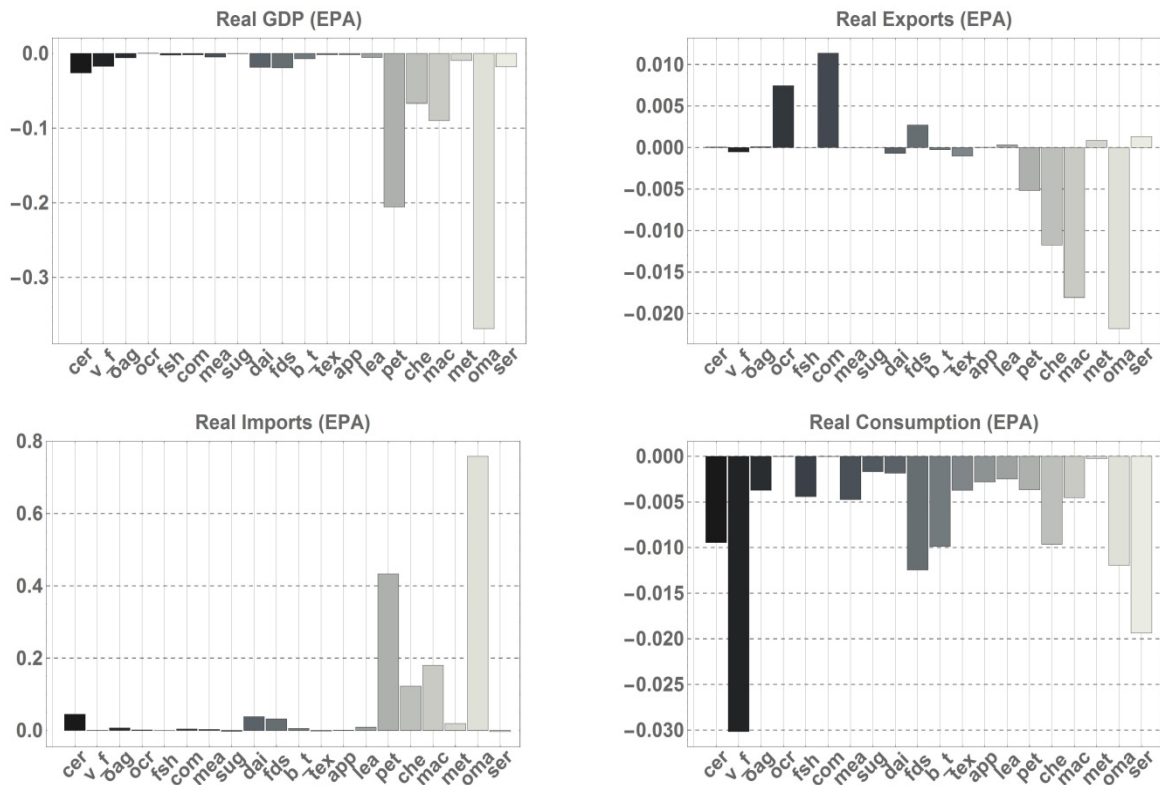
4.2.3. Sectoral results

Figure 12 and Figure 13 report sectoral details for Ghana in response to scenario 1. Note that each bar in each panel represents the weighted growth rate of economic activity; i.e., the growth rate of Ghana’s exports of sector 4 product, multiplied by the share of sector 4 in total activity for the 4th bar in the top right panel. See the notes to the Figure 12 for further details.

What stands out here is indeed that sectors commodities (com), sugar (sug) and foods (fds) experience an increase in exports. Overall, net exports fall – but increases in real exports in these sectors buffet the contraction.

The two bottom panels show further statistics on the sectoral expenditure side. The bottom left right, for example, records the sectoral contributions to the change of aggregate real imports. In other words, each bar represents the product of the share of sectoral real imports in total real imports and the growth rate of those sectoral real imports. As expected, import effects are the largest in sectors most affected by the liberalization. These aggregate growth rates are -0.04% for real exports, 1.65% for real imports (compare also to Table 30) and -0.14% for real consumption.

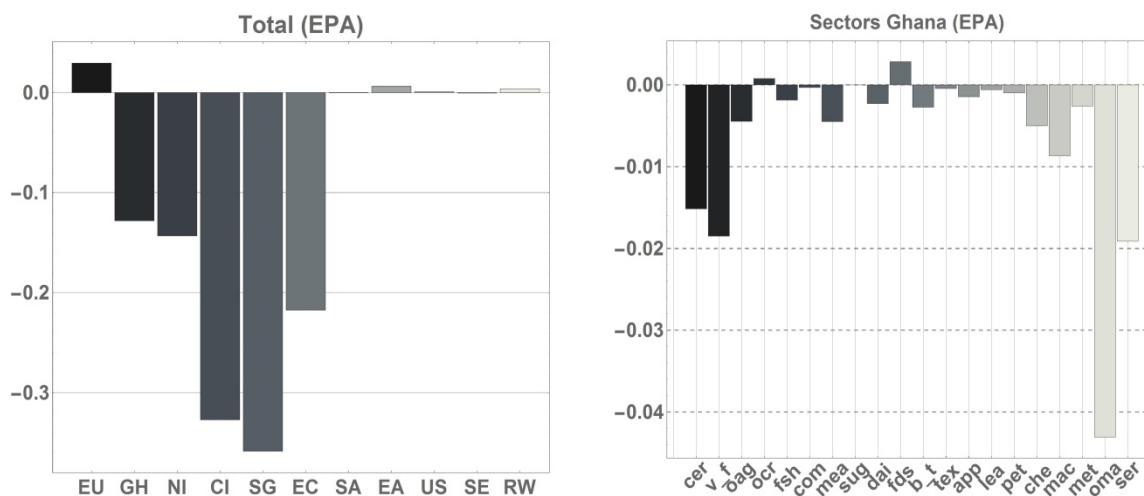
Figure 12: Sectoral contributions to growth in Ghana in scenario 1



Notes: Notes: Top left: Each bar represents the sectoral contribution to growth of real GDP. The sum across sectors amounts to -0.87%, see the bar for Ghana in Figure 8. Top right: Each bar represents the sectoral contribution to growth of real exports. The sum across sectors is the aggregate growth rate of real exports (-0.04%). Bottom left: Sectoral contributions to growth of real imports; aggregate 1.65%. Bottom right: Sectoral contributions to growth of real consumption (-0.14%). Source: CGE calculations

Figure 13 complements this insight with details on employment results. Again sector foods (fds) stands out – with a minimal, but positive change in employment.

Figure 13: Employment growth in Ghana in scenario 1

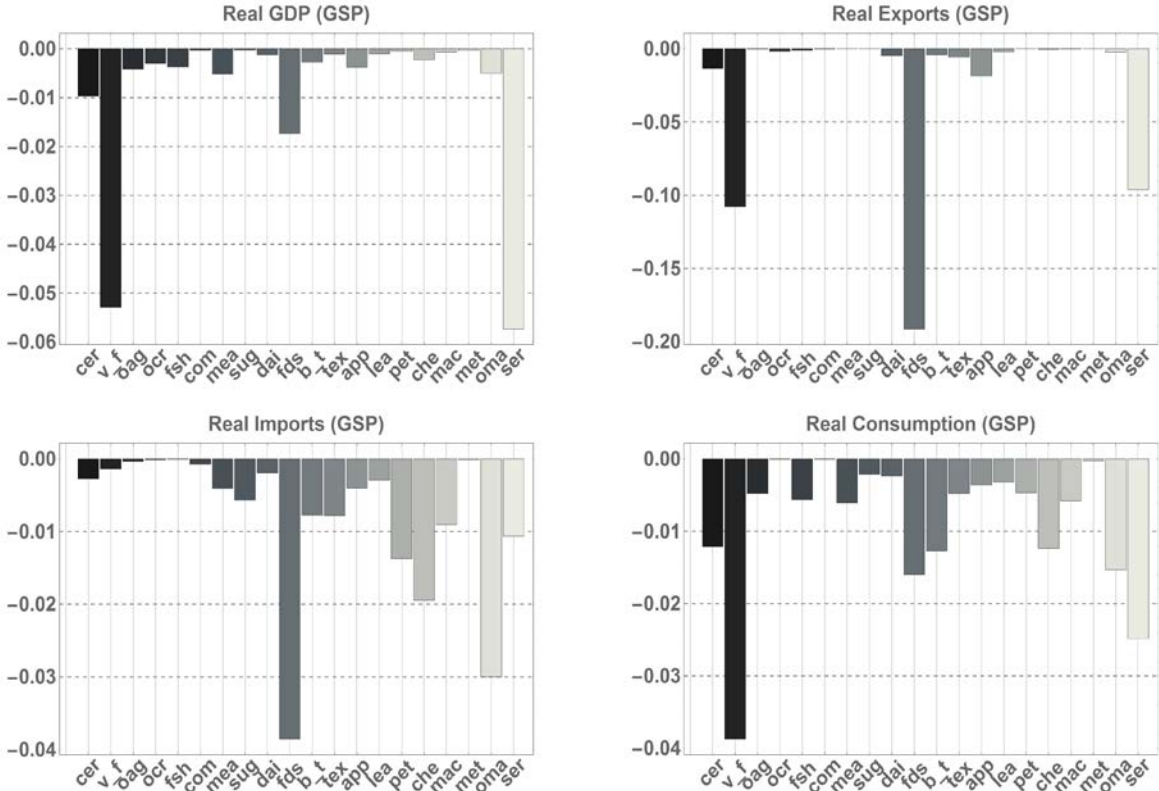


Notes: Left panel shows aggregate employment growth in all regions in scenario 1. Right panel shows sectoral contributions to aggregate employment growth in Ghana in scenario 1. The sum across sectors at right is equal to Ghana's bar in the left panel. Source: CGE calculations

Given the more pronounced changes, the percentage change of -0.2% would be equivalent to job losses up to 210,000 jobs in the ECOWAS-EPA region as a whole and 20,000 jobs for Ghana (own estimates based on ILO Statistics).⁹⁰ Almost half of these job losses occur in the manufacturing sector of the whole ECOWAS-EPA region.

Figure 14 shows the sectoral results under the GSP scenario. Here, tariff rates on Ghana's export to the EU are *raised* relative to the rates in the baseline, which effectively are zero. Sector 9 (dairy) faces the largest increase, to a rate of 42%. However, virtually non-existent exports here render this irrelevant for the results. The dominant changes on (weighted) sectoral exports of Ghana are in sectors vegetables and fruits (v_f), foods (fds) and apparel (app).

Figure 14: Sectoral contributions to growth in Ghana in scenario 3 (GSP)



Notes: Top left: Each bar represents the sectoral contribution to growth of real GDP. The sum across sectors amounts to -0.17%, see the bar for Ghana in Figure 8. Top right: Each bar represents the sectoral contribution to growth of real exports. The sum across sectors is the aggregate growth rate of real exports (-0.45%). Bottom left: Sectoral contributions to growth of real imports; aggregate -0.16%. Bottom right: Sectoral contributions to growth of real consumption (-0.18%). Source: CGE calculations

4.2.4. Sensitivity analysis

Figure 15 presents sensitivity analysis. The purpose of sensitivity analysis is to assess to what degree model results depend on parameter values, which, often, are surrounded by significant uncertainty. Here, we focus on import price elasticities: the elasticity that describes the percentage change in real imports in response to a percentage change in relative prices. Traditionally, but also in our model, these elasticities are exogenous inputs to

⁹⁰ Estimates based on annual average employment data by economic activity between 2011 and 2015 and own sectoral simulation results. Since employment statistics in Africa are notoriously lacking in quality, and typically cover formal employment in urban areas only, these numbers must be interpreted carefully.

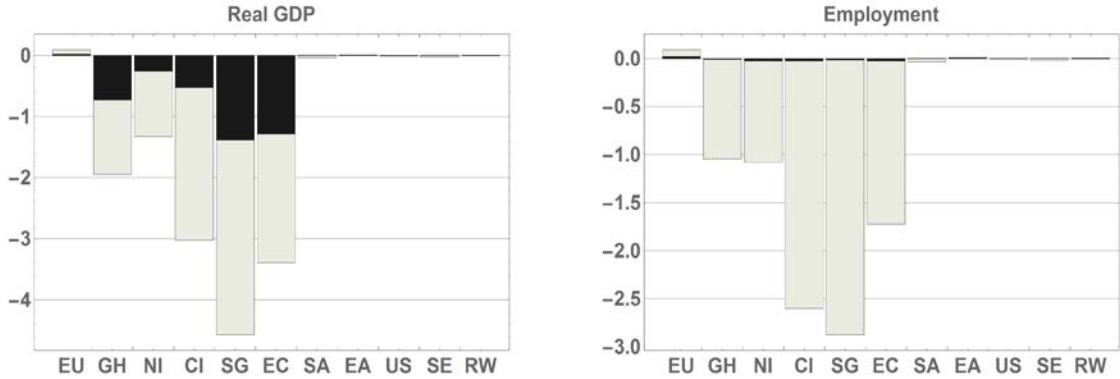
the model and have a significant effect on the magnitude of the estimated effects. The elasticities applied in our model (as discussed above) are from the GTAP database, and are, following standard practice, uniform across countries but vary across sectors.

These so-called “Armington elasticities” are often viewed critically on the grounds that they are unreasonably large. The unweighted average of the GTAP elasticities in our aggregation is 3.2, with elasticities around 4 in sectors such as *leather* and *machinery*. For our baseline calibration, which is used to produce model results in the three scenarios previously discussed, we therefore feed only half the GTAP value into the model, for an unweighted elasticity average of 1.6. In the case of Ghana, the average elasticity vis-à-vis the EU, weighted by import shares, then amounts to 1.62.

Now, to conduct sensitivity analysis, we, first, further reduce the average elasticity values, and, second, increase them. Figure 15 presents these results for scenario 1. The low elasticities correspond to 1/3 of GTAP values, the high elasticities to 5/3 of GTAP values. The black bar shows the growth rate of real GDP with low elasticities, and the gray bar shows the *additional change* with high elasticities. Thus, for Ghana, the left panel records a real GDP contraction of -0.73% with low elasticities, and -1.94% with high elasticities. The right panel illustrates the concomitant growth rate of real employment.

The ranges represented in Figure 15 are indicative of the uncertainty surrounding estimates of the effect of liberalization. As shown for the case of Ghana, the EPA outcomes depend crucially on trade effects in specific sectors, particularly in the manufacturing sectors. Thus, elasticities are important factors to determine trade responses following changes in tariffs and subsequently overall effects.

Figure 15: Sensitivity analysis



Notes: The left chart shows model results in scenario 1 for different trade price elasticities. The black (gray) bar corresponds to 1/3 (5/3) of GTAP trade price elasticities. The unweighted average of trade price elasticities across sectors is 1.08 (5.4); for our baseline scenario with half the value of GTAP elasticities the unweighted average is 1.60. The size of the gray bar is inclusive of the black. The right panel shows the corresponding results for aggregate employment. Source: CGE calculations

4.2.5. Comparison and Conclusions

Our simulations have shown that unilateral liberalization in the countries of ECOWAS and in Ghana in particular, will have negative effects on GDP and employment, both at an aggregate and sector level. This is partially in contrast to results of standard models applied to EPA trade liberalization scenarios. Generally, model results differ due to type of models (CGE, Partial Equilibrium), model causalities, datasets, time frames and liberalization scenarios and should therefore be compared with caution.

An analysis of MacLeod et al. (2014) applying a partial equilibrium model sees small losses in public revenues that are compensated by welfare gains in lowest income households due to lower import prices and by increased profitability in the manufacturing sector (see also discussion in section 4.3). The economic impact assessment for the ECOWAS-EPA by the EC (2016b) reports positive, but small macroeconomic effects with changes in GDP ranging from 0.0% in Togo to 0.5% in Côte d'Ivoire and Burkina Faso. This CGE analysis assumes in the baseline that non-LDC countries such as Ghana and Nigeria are in GSP before the EPA liberalization is applied, implying that export performance of ECOWAS countries contributes to the EPA effects in addition to the import liberalization. The results of the assessment show, that Ghana (GDP 0.1%) and Nigeria (GDP 0.1%) can hardly benefit from the EPA despite the assumption of GSP tariffs in the baseline. In particular, imports from the EU increase by up to 30%, which lifts the share of the EU in ECOWAS' total imports from 20% to more than 25%.

Our analysis for the ECOWAS-EPA shows the most pronounced negative effects for African partner countries, given the extensive trade relations with the EU and the relatively high tariff protection. Sectoral losses in Ghana are concentrated in the industrial sectors of the country. In addition, the current account and the budget deficit will deteriorate, which also has implications for public tax policies. While these results primarily indicate the effects of the implementation of tariff reduction commitments under the ECOWAS-EPA, it is clear that in order to reap the benefits of stable market access provided by the agreement, the ECOWAS economies will need to promote the competitiveness of their export sectors and engage in a longer-term strategy of upgrading their economic and particularly industrial structure. The management of the implementation process of the ECOWAS-EPA will thus be pivotal in ensuring and maximizing the positive effects.

4.3. Implementation of the ECOWAS-EPA in Ghana: Opportunities and Constraints

Ghana's iEPA was initiated in 2007 and after years of negotiation ratified in mid-2016. The negotiation on the regional ECOWAS-EPA was finalized in 2014 and, as of early 2018, the ECOWAS-EPA has not been ratified mainly due to the opposition of Nigeria. The iEPA succeeded MAR and thus maintained DFQF access to the EU. As a non-LDC, Ghana would have fallen back to GSP without the EPA/MAR. With the EPA, Ghana enters into a comprehensive trade agreement with the EU that requires substantial efforts within Ghana to implement the agreement, to address potential negative effects, to use its export potentials and hence make the agreement beneficial for the country particularly in the longer run. In this regard, the current status of Ghana's economic and institutional structure is a challenge in using the potential of the agreement even though institutions are better equipped and capabilities higher to deal with this challenge as compared to other SSA countries such as Mozambique.

This section builds on section 2 of the report which analyzed the relevant provisions of the EPAs and potential challenges for member states. Thus, in this section, firstly the expectations associated with the EPA in Ghana are discussed followed by secondly a short summary of important constraints in terms of capacities and funding in order to use the potential of the EPA.

4.3.1. General perception of the EPAs in Ghana

In Ghana, the discussion on the ratification of the iEPA and the ECOWAS-EPA has been lively. The supporters of the EPAs during the negotiation and ratification processes included most government agencies (e.g. ministries such as the Ministry of Trade and Industry (MOTI) and the Ministry of Finance as well as export and investment promotion authorities) and various business associations and labor unions of industries expected to be negatively affected by a fall back to GSP tariffs.

A study conducted by MOTI in collaboration with the World Bank can be considered as a key document regarding the assessment and perception of the impact of the EPA within the state apparatus. The study (MacLeod et al. 2014) argues that the impact of the EPA will be relatively small compared to the implementation of the ECOWAS-CET. The study also holds that firms in the manufacturing sector will benefit through lower input and capital equipment prices. Profit losses might occur in the mineral products and furniture sectors. The study also expects the lowest income households to benefit due to lower prices for their consumption bundle (0.2%). The loss in tariff revenue is expected to be absorbed by the higher tariffs of the CET.

In the private sector, the Federation of Association of Ghanaian Exporters (FAGE), which is comprised of over 2,500 members in the agricultural and manufacturing sectors, has been among the most important advocates in favor of the EPAs. Specifically, exporters to the EU that would have been affected by GSP tariffs were lobbying strongly in favor of the EPAs. Supporters of the EPAs consequently pointed to the negative effects of GSP tariffs on exports, businesses and employment.

The tuna, cocoa and fruit processing sectors as well as the yam, shea butter and fruit (banana and pineapple) sectors would have been most affected by the introduction of GSP tariffs in Ghana (Table 31). The tuna sector⁹¹ would have been the most affected sector due to GSP tariffs of 20.5% and unfavorable RoO in the GSP vis-à-vis the EPA (related to changes on wholly obtained and cumulation rules). In 2015, Ghana exported EUR 169 million processed tuna (HS160414) to the EU and directly employed around 5,000 persons (Eurostat 2016; FAGE 2016). The largest processor, the Pioneer Food Cannery (Thai Union Group) with 1,800 employees, openly threatened⁹² to leave Ghana in case the EPA will not be signed. In the cocoa processing sector, processors with a strong EU export focus as well as large cocoa paste and butter production (e.g. Barry Callebaut) would have been the most affected companies (see Section 4.2).

In a report supported by the EU development cooperation program TRAQUE (Trade Related Assistance and Quality Enabling Program), FAGE (2016) also claims that various fruit and fruit processing companies exporting GSP-tariff affected products (esp. bananas and fruit juice) would have had to reduce exports or close down without an EPA (e.g. Golden Exotics, Volta River Estates, Pioneer Quality Farms) contributing to thousands of direct and indirect job losses.

⁹¹ Including companies such as the Pioneer Food Cannery (Thai Union Group), Cosmo Seafood, Myroc Foods and Ichiband Company.

⁹² The tuna sector also suffers from the recent electricity price increases due to high electricity consumption within the sector (fish preservation).

Table 31: EPA tariff effects on key export products (agriculture/fisheries, HS6, 2015)

HS	Goods	EU-GH Imports (million EUR)	EPA tariffs	GSP (% , 2016)
180100	Cocoa beans	700.81	0	0
180310	Cocoa paste (excl. defatted)	191.82	0	6.1 (9.6)**
160414	Processed tuna	169.00	0	20.5
180400	Cocoa butter	101.30	0	4.2 (7.7)**
080390	Banana (fresh and dried)	39.10	0	122 €/ ton resp. 12.5%
180500	Cocoa powder	31.42	0	2.8 (8)**
151590	Vegetable fats (Sheabutter)	29.39	0	0 to 8.9
080430	Pineapple (fresh and dried)	24.24	0	2.3
080450	Mango (fresh and dried)*	18.84	0	0
180320	Cocoa paste (defatted)	16.23	0	6.1 (9.6)**
081090	Various fruits	15.99	0	0 to 5.3

Note: HS codes with various sub-codes are calculated on the basis of the average MFN-tariff minus the GSP-margin for sensible products based on WTO data; *includes Guava and Mangosteen; **Processed cocoa could have been excluded from GSP tariffs according to Article 8 and Annex VI of Regulation (EU) 978/2012.

Source: Eurostat 2016; TARIC 2016; WTO 2016

Opponents of the EPAs included parts of the academia, national and international NGOs like the Third World Network (TWN)⁹³, farmer organizations as well as more domestically and regionally oriented business associations (for example the Private Enterprise Foundation and some sections of the Associations of Ghanaian Industries) and labor unions. These actors highlighted the ‘anti-developmental’ character of the EPAs due to policy space restrictions beyond WTO requirements (e.g. regarding degree of market opening, MFN and standstill clause and export taxes) as well as the negative effects of increased EU imports on the local and – in the case of the ECOWAS-EPA – regional market on Ghanaian businesses with a domestic and regional market orientation. At the beginning of the EPA negotiations, opponents of the EPA were not satisfied regarding their inclusion in stakeholder meetings. The situation improved during the negotiation process; however, their inclusion in stakeholder meetings did not yield meaningful results in terms of policy changes.

TWN has been one of the most active NGOs in working against the implementation of the EPAs in general and in Ghana in particular. For example in 2013, they (TWN 2013) argued vis-à-vis the Ministerial Advisory Board of the MOTI that the costs of signing the iEPA would outweigh its benefits. While they acknowledged that not signing the EPA would have led to market disruptions in various sectors (esp. tuna and cocoa) due to GSP duties⁹⁴, they argue that around two-thirds of Ghanaian exports would continue to be exported DFQF to the EU. The costs, on the other hand, would include (i) the crowding-out or hindering the future development of domestically oriented businesses in case of the iEPA (e.g. businesses in the plywood, veneer and pharmaceutical sectors) as well as of regionally oriented businesses in case of the ECOWAS-EPA (e.g. businesses producing phar-

⁹³ TWN is an international NGO, however it is quite locally embedded in Ghana with the headquarter of TWN Africa being in Accra.

⁹⁴ At the time, they calculated GSP tariffs to be around USD 52 million annually, potentially threatening roughly 4,000-4,500 (direct) jobs. This is roughly in line with FAGE (2016); however, the study presented by FAGE also highlights thousands of indirect job losses.

maceutical, wood, wire weavers, plastic, pasta and other products), (ii) a loss in tariff revenue⁹⁵ that would be three to seven times larger than the total GSP tariffs reduction on the export side during that time, (iii) a reduction of policy space, and in case of the iEPA (iv) a disruption of the regional integration process. Based on this analysis, they argue that not signing the EPAs would be a better option for Ghana and that the negatively affected export sectors should have been supported by the government via retained tariff revenues. Berthelot (2016a, 2016b) from the French NGO Alternatives Agroécologiques et Solidaires (SOL) presents updated calculations⁹⁶ and argues that the Ghanaian government should have opted for GSP+ instead of the EPA. However, it remains highly questionable in how far the European Commission would have granted Ghana GSP+, if Ghana would not have signed the EPAs.

4.3.2. Potential constraints and funding in the EPA-implementation process in Ghana

Given the complexity of the EPAs, negotiating as well as implementing the agreements puts significant demands on institutional capacities (see also Section 3.3.2. on Mozambique in which the capacity and capability constraints for EPA implementation are discussed in more in details). Compared to many other EPA countries, Ghana has more developed institutional capacities and capabilities to implement the EPA. Ghana also developed an EPA Accompanying Measures Strategy in order to tackle existing bottlenecks by utilizing the EPA development program as well as other funds. The strategy has been formulated by consulting public and private stakeholders across the region. Ghana also recently started to establish the Ghana International Trade Commission (GITC), an autonomous government agency empowered to regulate Ghana's international trade relations. The GITC will be in charge to deal with trade related issues such as safeguard measures and trade disputes.⁹⁷

The EPA implementation nonetheless is a challenge for Ghana despite these comparatively more developed institutions and supporting measures. While the institutional implementation seems to be managed, capacities to deal with SPS and TBT measures remain insufficient, as is exemplified by the current existing and renewed ban on vegetable exports to the EU (a ban that is particularly hurtful for exporters of chili pepper). Efforts by the Ghanaian government, bureaucracy and donor agencies are appreciable; however, improvements and setbacks need to be carefully monitored and the EU and national development cooperation need to maintain and/or extend their assistance.

Ghana already received support for EPA implementation in the 10th EDF (Table 32). The first EPA implementation assistance tranche on the EU level totaled EUR 158.9 million and included capacity building in trade related organizations (esp. related to customs, TBT and SPS issues), export promotion within the banana sector, infrastructural upgrading (esp. building roads) and support of the business environment. The largest budgetary item was the upgrading of road infrastructure and customs administration implemented by the Ministry of Transport and the Ghana Highway Authority (EC 2016c).

⁹⁵ Based on different sources, they estimated tariff losses to be between USD 150 and 375 million.

⁹⁶ Berthelot (2016a; 2016b) argues that GSP duties in 2015 would have only amounted to EUR 67 million on exports to the EU-28 and EUR 45 million to the EU-28 minus the UK. The loss in tariff revenue is estimated to be EUR 151 million (EU28 minus UK). Berthelot also argues that the Ghanaian government has ratified the EPA based on false data.

⁹⁷ The GITC will absorb the Tariff Advisory Board (TAB) as soon as it is operational.

Table 32: EPA implementation support by the EU

Implementing Bodies	Area of support	Total (EUR million)
MOTI & TRAQUE	Capacity building for formulating, negotiating and implementing trade policies	6.3
MOTI & companies in Banana sector	Support to non-traditional exports in the banana sector	7.2
Ministry of Transport, Ghana Highway Authority	Upgrading road infrastructure and customs administration	123.3
MOTI & TRAQUE	Improvement of quality infrastructure and quality standards	8.7
BUSAC & Association of Ghana Industries (AGI)	Improved access to finance and business development services in an enabling business environment	13.4
Total		158.9

Source: EC 2016c

The Trade Related Assistance and Quality Enabling Program (TRAQUE) is funded with EUR 15 million during the period 2011 and 2017 in order to support MOTI in private sector development, trade facilitation and capacity building (TRAQUE 2017; EC 2016c). The capacity development program focuses on SPS and TBT issues as well as on industrial strategy and post-EPA implementation support. TRAQUE offers training and grant facilities to improve infrastructure (e.g. national quality infrastructure, equipment support for laboratories, etc.) and supports the Ghana Export Promotion Authority (GEPA), the National Board for Small Scale Businesses (NBSSI), the Food and Drugs Authority (FDA) and the Ghana Standards Authority (GSA). The EC also funded the Business Advocacy Challenge Fund (BUSAC) in Ghana with EUR 13.4 million within the 10th EDF (BUSAC 2017; EC 2016c). BUSAC I (2004-2010) and BUSAC II (since 2010) were established in order to improve the Ghanaian business environment and support the private sector via grants. DANIDA, USAID and the EU fund the project. Between 2016 and 2020 the EC will support productive investments in agriculture with EUR 90 million as well as additional support for trade facilitation, fiscal transition and EPA implementation (EC 2016c). Various development projects supporting trade promotion are also implemented by development cooperation projects of other EU member states.

4.4. CASE STUDY II: Effects of the EPA on the cocoa sector in Ghana

The sectorial case study of the cocoa sector in Ghana shows the importance of specific sector and value chain dynamics as well as local conditions in being able (or not) to use market access potentials on the export side. To understand the development implications of the EPAs for ACP cocoa exporting countries, it is crucial to analyze the regulatory changes the EPAs have brought. But the analysis of regulatory changes has to be done in combination with assessing competitive business dynamics within the cocoa GVC and particularly the sourcing and investment strategies of lead firms to understand potentials and limitations for export responses. But also local conditions clearly have a large impact on the possibilities to use the export potential of the EPAs. Specifically, in SSA countries local productive and institutional capacities and capabilities on the firm side as well as the government side are often very restricted which limits entrepreneurial and policy response to the EPAs. This one's more highlights the importance of development cooperation to support sector-specific policies and projects at the national and regional level.

From a development perspective, it is not only important to improve conditions and outcomes in production for agricultural sectors but also to assess and support opportunities for upgrading to higher value added activities that often involve processing. The cocoa value chain is an example of an agricultural cash-crop chain that requires heavy processing. In general, such chains are characterized by limited opportunities for functional upgrading in producer countries, since processing requires larger capital investments and such higher value activities tend to be performed by lead firms in core countries (AfDB/OECD/UNDP 2014). While this is also true in the cocoa value chain, many cocoa producer countries have still been able to functionally upgrade to certain processing activities – albeit only to lower value added processing of cocoa beans – due to a change in lead firms’ strategies and producer country incentives.

The case study of the cocoa sector in Ghana highlights the impact of the EPA on the cocoa sector as well as the benefits, limitations and distributional implications of functional upgrading to processing. The section starts with an overview of the global cocoa value chain, highlighting its dynamics as well as the asymmetrical power relations and strategies of main actors along the chain. In the following, we describe the cocoa sector in Ghana by focusing on the status and key challenges of cocoa producers, cocoa processors and chocolate manufacturers. Based on this analysis, we discuss the potential impact of the EPA on the sector. We conclude by examining the development implications of the EPA as well as the potential for functional upgrading to processing in Ghana.

4.4.1. The Global Cocoa Value Chain

The cocoa value chain can be roughly divided into six stages: (i) supply of inputs; (ii) cocoa bean production, which includes growing the trees, harvesting the pods as well as fermenting and drying the beans; (iii) processing of cocoa beans (roasting, grinding and pressing) to cocoa liquor (also called cocoa paste), butter and powder; (iv) further processing of the intermediate products, e.g. the manufacturing of industrial chocolate (‘couverture’) by conching a mixture of cocoa paste and butter as well as other inputs, such as sugar and powdered milk; (v) manufacturing of chocolate (bars, truffles, bonbons, confectionaries, etc.) by chocolate manufacturers, dairies and bakers; and (vi) distribution and sales channels (Squicciarini/Swinnen 2016: xxv). Intermediate cocoa products are also used in other products besides chocolate, e.g. cocoa drinks or as an ingredient in cosmetics.

The cocoa value chain has been described as a ‘bi-polar’ governance structure with lead firms in the processing of cocoa and manufacturing of chocolate segments (Fold 2002). The relative absence of vertical integration along the whole chain as well as the high level of concentration in both processing segments put forward two sets of actors with strong control over the value chain. Fold and Neilson (2016), however, recently argued that chocolate manufacturers exert greater control over the value chain. The high degree of brand sensitivity of chocolate manufacturers requires brand management and tight control over the value chain. In a similar vein, Aurajo Bonjean and Brun (2016) argue that both set of actors are in the position to exert market power over the value chain, however, chocolate manufacturers are more likely to set a non-competitive price for chocolate tablets and extract rents since cocoa processors are not in the position to set prices for semi-finished products and couverture above the competitive market price. Retailers set the price of chocolate products in the consumption market and decide whether or not certain products are included in their offer; however, their control over the supply chain is rather limited compared to the dominant role of chocolate manufacturers and cocoa processors.

The production of cocoa beans is labor-intensive and between 80% to 90% is carried out by smallholders (WCF 2014; de Lattre-Gasquet et al. 1998; Fold/Neilson 2016). It is estimated that 2.5 to 6 million farmers are producing cocoa worldwide, contributing to the livelihoods of around 50 million people (ICCO 2012; WCF 2014). Geographically, the production of cocoa beans is concentrated in Africa (74% of total production), America (16%) as well as Asia and Oceania (10%) (ICCO 2016). In recent years, the number of producer countries has expanded. The by far largest cocoa beans producers are Côte d'Ivoire (39%) and Ghana (21%) with around 60% of the global cocoa beans production (Table 33). Forastero (mostly 'bulk cocoa') makes up around 80% of the global production and is mainly produced in Africa, Ecuador and Brazil. Criollo and Trinitario (a hybrid) are more common in Latin America and the Caribbean countries and are more likely to fetch a premium on the international market if they qualify as 'fine' or 'flavor' cocoa. Cocoa trees yield crop after 3-5 years and remain productive for 25 to 40 years and more, however, yields decline already after approximately 15 years.

Table 33: Cocoa beans production worldwide (2015/16)*

		Volume (thousand tons)	Share of global production (%)
1	Côte d'Ivoire	1,570	39.4
2	Ghana	820	20.6
3	Indonesia	330	8.3
4	Cameroon	250	6.3
5	Ecuador	230	5.8
6	Nigeria	190	4.8
7	Brazil	135	3.4
	Other	464	11.6
	World total	3,988	100

Note: *forecast; totals differ due to rounding.
Source: ICCO 2016

Cocoa grinding, on the other hand, is capital-intensive and highly concentrated but geographically increasingly dispersed. Since the liberalization of the cocoa sectors in producing countries in the context of structural adjustment programs (SAPs) in the 1980s and 1990s, merger and acquisitions (M&A) increased the consolidation of the cocoa trading and processing sector. M&As of trading and processing companies have been a strategy to gain control over a larger part of the value chain as well as to achieve economies of scale and scope in the trading and processing of cocoa beans (Fold 2002; Gilbert 2009; Aurajo Bonjean/Brun 2016; UNCTAD 2008). The concentration of the processing sector has also been furthered by many chocolate manufacturers exiting the less profitable grinding sector (UNCTAD 2008). Today, the cocoa processing industry is dominated by three multinational companies which account for roughly 60% of the world's cocoa processing (Terazono 2014): Barry Callebaut, Cargill and Olam.^{98 99} The integration of processors and exporters has been at the expense of smaller local and international cocoa traders.

The trend for horizontal and vertical integration of cocoa exporters and processors was accompanied by increasing geographical dispersion of cocoa processing. Historically, the cocoa processing industry was located in Europe and the US close to the chocolate man-

⁹⁸ Olam acquired ADM's cocoa business in 2014/15.

⁹⁹ Other large processing companies include Blommer Chocolate Company and Mondeléz (fully integrated), Guan Chong, BT Cocoa and Ecom Agroindustrial.

ufacturers and consumption markets. In recent years, however, grinding in producer countries ('origin grinding') has been promoted by tax and other incentives. Origin grinding furthermore increases the control of lead firms over the upstream segments of the chain which has become important as a strategy to address supply constraints and insecurities in the context of increasing demand. Today, grinding in origin countries makes up for roughly 47%, with Côte d'Ivoire, Indonesia, Brazil, Ghana and Malaysia¹⁰⁰ being the largest processors of cocoa apart from the EU and the US (ICCO 2016, see Table 34).

Table 34: Cocoa grindings worldwide (2015/16)*

		Volume (thousand tons)	Share of global processing (%)
1	Netherlands	520	12.5
2	Côte d'Ivoire	510	12.3
3	Germany	440	10.6
4	United States	410	9.9
5	Indonesia	370	8.9
6	Brazil	228	5.5
7	Ghana	210	5.0
8	Malaysia	190	4.6
	Others	1,282	30.8
	World total	4,160	100

Note: *forecast; totals differ due to rounding.
Source: ICCO 2016

The manufacturers of chocolate are mainly located in the largest chocolate markets in the world, the EU and the USA. The chocolate manufacturing sector is also highly concentrated, with the top six chocolate manufacturers, including Mars Inc. (USA), Mondelēz International (USA), Nestlé SA (CH), Ferrero Group (Italy), Meiji Co. Ltd. (Japan) and Hershey Foods Corp (USA), having a market share of approximately 40% (Candy Industry 2016). For some of these companies, the manufacturing of chocolate is only a part of their food products portfolio (Nestlé, Mondelēz), while others (Mars, Ferrero, Hershey) are specialized in the manufacturing of chocolate-based products. Companies specialized in chocolate production also maintain in-house grinding capacity or set up their own cocoa plantations to reduce the power of producers and grinders. However, most manufacturers concentrate their activities on the design of consumer chocolate products and the marketing of global brands in order to be responsive to shifting consumer demands (Fold/Neilson 2016: 202).

The consumer market can roughly be divided between (i) high-volume low-value bulk chocolate; (ii) mainstream quality chocolate; and (iii) high quality 'niche' chocolate (e.g. fine flavor, Fairtrade, organic) (Barrientos 2016). In recent years, growth rates in the key consumer markets have largely been driven by high quality products, emphasizing the importance of branding and responsiveness to consumer demands in a differentiated consumer market. The EU and the USA are by far the most important consumers of chocolate products. European countries, in particular Switzerland, Ireland, the UK, Austria, Germany, Belgium, Norway, and others, have the highest per-capita consumption of chocolate in the world. However, Japan, Russia, Brazil and increasingly also China and India are examples of important emerging markets of chocolate products. Tamru and Swinnen (2016) point

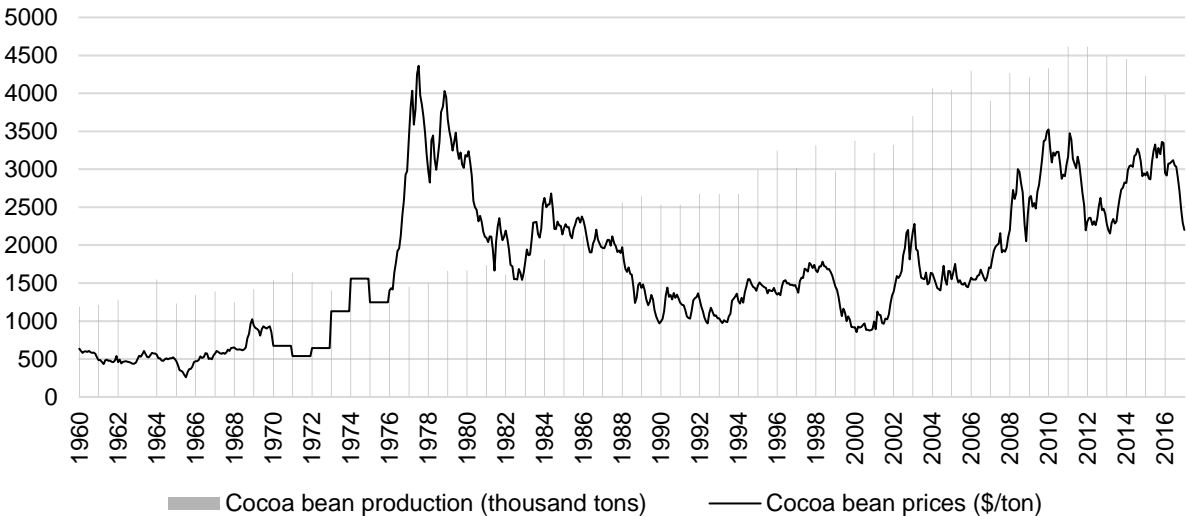
¹⁰⁰ Malaysia is considered to be a producing country by ICCO, even though Malaysia does not produce cocoa anymore (Fold/Neilson 2016: 198).

out that chocolate consumption in Africa is comparatively small, but growth in cocoa and chocolate consumption is likely to increase the share of Africa.

The power imbalances within the bi-polar cocoa value chain in which multinational corporations source cocoa beans from smallholders as well as the increasing importance of branding and marketing is reflected in the decreasing share of value captured by cocoa producers. The share of cocoa beans in the value of a milk chocolate bar in the UK is estimated to have dropped from an average of 27% between 1976 and 1985 to 9% between 1995 and 2005 (Gilbert 2006). A cost breakdown for UK milk chocolate in 2004 estimated the producer price of the final retail price to be only 4%, while processors and manufacturers receive around 51% and retailers 28% (the rest includes other ingredients, advertising, transport) (ibid.). A similar cost analysis by Cocoa Barometer (2015) estimates the value added of cocoa producing (7%), transporting and trading (6%) as well as processing (8%) to be relatively low compared to the value added of chocolate manufacturing (35%) and retailing (44%).

Cocoa producers have nonetheless benefited from relatively high cocoa prices in the recent decade, despite pronounced volatility, with nominal price levels last seen in the 1970s (Figure 16). The recent price increases were driven by rising chocolate demand and only moderate increases (and most recently decreases) in the supply of cocoa beans. Concerns in the cocoa industry that the demand for chocolate is outstripping supply of cocoa beans (e.g. Blommer 2011) have incentivized lead firms to tighten the grip over the cocoa value chain and promote sustainable cocoa production and origin grinding. Other phenomena, such as expected supply shocks due to weather conditions (e.g. El Niño, Sahara winds, rainfall) and speculative investors' activities on commodity futures markets, are key reasons for the high volatility of cocoa prices. The global price of cocoa is set on futures markets through the ICE Cocoa Futures, London Cocoa Futures and Euro Cocoa Futures. On the national level prices are determined by global prices – cocoa beans are sold at a premium or discount depending on the quality of the beans. The recent decrease of cocoa prices can largely be explained by the decrease in chocolate consumption in 2016, high production expectations in West Africa and the bankruptcy of the US cocoa processor Transmar Commodity Group (Terazono 2017).

Figure 16: Cocoa prices and production (1960-2016)



Note: Cocoa bean production is based on FAO (2017) until 2014. Values on the y axes are valid for both dimensions (thousand tons and \$/ton). Source: ICCO 2016; FAO 2017

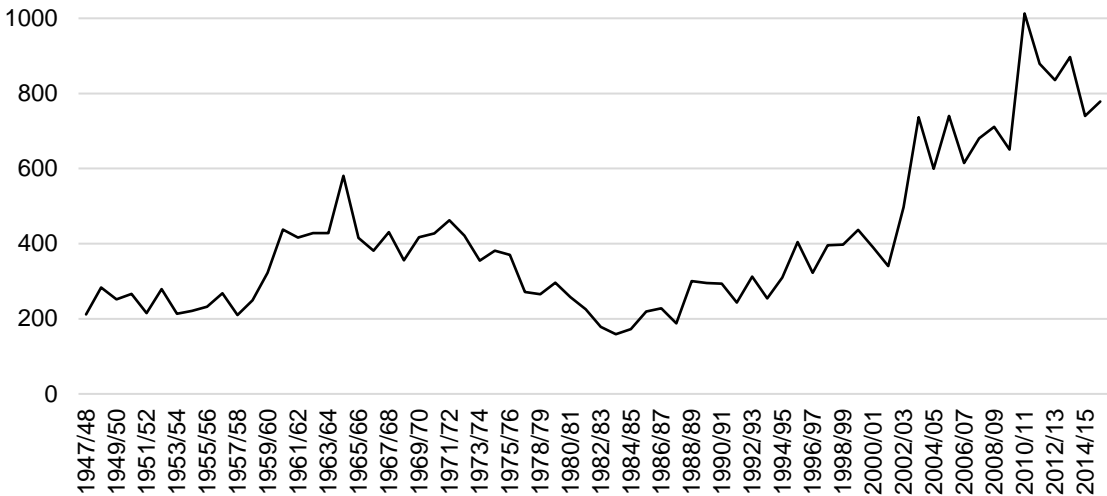
4.4.2. The cocoa sector in Ghana

Cocoa in Ghana was introduced in the late 19th century and Ghana was the largest producer of cocoa in the 1960s; however, cocoa production significantly declined until the early 1980s. The rehabilitation of cocoa bean production was initiated after the Provisional National Defence Council (PNDC), a military regime led by J.J. Rawlings, took power in 1981/82. The most important policy changes included the liberalization of the internal marketing of cocoa beans, the increase of producer prices and reforms of the state owned marketing board, the Ghana Cocoa Board (COCOBOD). The government of the New Patriotic Party (NPP) in the 2000s particularly aimed at increasing production and productivity as well as local processing (Vellema et al. 2016; Whitfield et al. 2015).

The production of cocoa beans has increased significantly since the early 1980s. Production doubled until the millennium and again nearly tripled between the 2000/01 harvesting period and the all-time high yield of 2010/11. The output of over 1 million tons of cocoa beans, however, was not maintained and dropped to 778,000 tons in 2015/16 (Figure 17; COCOBOD 2016). Today, Ghana is the second largest producer of cocoa in the world behind Côte d'Ivoire with a 20% share of global production (ICCO 2016). Despite the high importance of cocoa in the economy, there has been an increasing trend of agricultural diversification in Ghana (see Section 4.5. on the mango sector). The share of cocoa in agricultural GDP decreased from 19% in 2005/06 to 11% in 2015 (GSS 2015). In 2014, cocoa beans were the third largest export product after crude oil and gold.

The production of cocoa is concentrated in the forested and rainy areas in the south, with the Western and Ashanti regions accounting for roughly 70% of total production in 2015/16 (COCOBOD 2016). The main season runs from October to March/April and the low season from May/June to August/September. Cocoa from Ghana is 'bulk cocoa'; however, the beans can fetch a premium (roughly 3-5%) on the market due to their high quality, including a high fat content (increasing cocoa butter yields), low levels of debris and low levels of bean defects (Gilbert 2009; Kolavalli/Vigneri 2011). The light crop beans, smaller sized beans with a share of around 10% to 20% of total cocoa production, trade at a discount on the international market (around 12-15%, Whitfield et al. 2015: 244) and are mainly used for local processing.

Figure 17: Cocoa bean production in Ghana (1947/48-2015/16, thousand tons)



Source: COCOBOD 2016

The cocoa value chain in Ghana can be roughly divided into six stages: (i) cocoa farmers produce cocoa beans and sell them to (ii) Licensed Buying Companies (LBCs) who buy the beans from the farmers and transport and sell them to (iii) the Cocoa Marketing Company (CMC), a subsidiary of COCOBOD. CMC then sells the beans (iv) to international traders and international and national processors on the spot and forward market. The largest share of the beans (over two third) is exported without further processing. (v) The light crop (smaller beans), a small share of normal beans and sometimes also imported beans from Côte d'Ivoire are processed to intermediate goods (cocoa powder, cocoa paste, cocoa butter) by national and international processors and then exported for further processing. (vi) A small share of the intermediate goods is used for chocolate manufacturing and other products by national and international companies. The locally manufactured chocolate is mainly for local consumption.

The cocoa value chain in Ghana remains highly regulated. Unlike other cocoa producing countries, Ghana resisted the demands of the Bretton Woods institutions and donor countries in the context of the SAPs to deregulate the cocoa sector and abolish the state owned marketing board **COCOBOD**. COCOBOD has been described as a pocket of efficiency (Whitfield et al. 2015: 241) and plays a key role in supporting farmers, ensuring quality control to sustain the price premium, coordinating exports and bargaining with powerful lead firms on the international market (Barrientos/Asenso-Okyere 2009), thereby partially rebalancing the power asymmetry between smallholders and large multinational corporations in the cocoa GVC.

COCOBOD and its predecessors were established in the 1940s during the British colonial rule. Today, COCOBOD consists of five subsidiaries: (i) CMC with a monopoly on export marketing of cocoa beans; (ii) the Quality Control Company (QCC) responsible for maintaining the quality of cocoa and other cash-crops; (iii) the Cocoa Health and Extension Division responsible for the control of cocoa diseases (esp. swollen shoot virus) and the rehabilitation of unproductive cocoa farms and extension services; (iv) the Seed Production Division (SPD) responsible for the production and supply of cocoa seed pods to farmers; (v) the Cocoa Research Institute of Ghana (CRIG), an excellence center for developing technological inputs for the cocoa industry.

CMC plays a key role in the value chain, since it is the sole marketer of cocoa in Ghana. CMC is responsible for negotiating the price with mostly large multinational buyers, forward selling and the logistics of purchasing cocoa from LBCs. The purchase of cocoa beans by CMC is financed by COCOBOD taking on an offshore loan before the start of the cocoa season in October. CMC sells around 70% of the expected cocoa bean production on the forward market. COCOBOD uses the forward contracts as the underlying for a syndicated offshore loan of up to USD 2 billion. The US-Dollars are exchanged to Ghanaian Cedi by the Bank of Ghana and the purchase of cocoa beans from farmers is conducted by LBCs. The credit is then payed back near the end of the main season for seven months between February and August with the foreign exchange income received from selling the cocoa beans. The main risk of this procedure is potential overselling¹⁰¹ due to insufficient production.

The minimum producer price and the distribution of income from selling cocoa beans is fixed in advance by the Producer Price Review Committee (PPRC) and its members from COCOBOD, government officials, cocoa buyers, farmers associations and other stakeholders under the chairmanship of the Minister for Finance and Economic Planning. The

¹⁰¹ A potential loss of trust in the supply credibility of CMC can be harmful since cocoa processors and chocolate manufacturers rely on a specific blend of cocoa beans (Terazono 2015). Distrust in the reliable supply of cocoa beans might prompt lead firms to change their blend and dismiss Ghanaian cocoa, most likely decreasing the premium Ghana currently enjoys.

estimated revenues (gross FOB value) are based on a forecast on the crop size based on pod counts of various cocoa farms, a forecast on the FOB price mainly based on forward contracts sold by CMC (depending on global future market prices) and the projected exchange rate of the Ghanaian Cedi to US-Dollar. The net FOB price is calculated by deducting various costs of services from the gross FOB value, such as disease and pest control costs, jute sacks, technical services and others. The minimum guaranteed price is set in September before harvesting time. In general, farmers receive above 70% of the net FOB price (78% in 2016).¹⁰² The rest is split between buying agents, LBCs and hauliers (around 10%), and COCOBOD's subsidiaries (Quartey 2013). A residual, a variable margin, is received by the government. In cases where prices remain below the minimum price, the residual will be reduced. Higher than expected prices often result in a higher residual and increased spending of COCOBOD. The risk of price fluctuations is reduced due to forward selling of the crop as well as a price stabilization fund. Key challenges of this pricing mechanism include a declining FOB price and an appreciation of the Ghanaian Cedi. High inflation rates furthermore undermine the income of smallholders since the minimum price is set at the beginning of the season. The minimum price also influences smuggling activities in or out of Ghana, depending on the price development in Côte d'Ivoire.

Cocoa in Ghana offers livelihoods for approximately 700,000 to 800,000 farm families with an average of 2-3 hectares. For most **cocoa farmers**, cocoa is the main source of income, making them particularly vulnerable to the volatility of the world price of cocoa beans and factors that reduce production and yields (e.g. weather conditions, lack of input supply, old trees etc.). Cocoa farmers, and in particular women and old farmers, are therefore the most vulnerable group in the cocoa value chain. The key representative of the cocoa farmers is the Cocoa, Coffee and Sheanut Farmers' Association (COCOSHE), which also has a representative in the Board of Directors of COCOBOD. Cocoa farmers are supported by COCOBOD in various ways, including extension services, research, farm rehabilitation and replanting, provision of seeds, subsidized fertilizers, mass spraying, scholarships, mistletoe removal, and housing and pension funding for farmers (Quartey 2013). There are also various development programs targeting the enhancement of livelihood of cocoa farmers as well as private sector initiatives implemented by buyers in order to improve the sustainability of supply and the quality of cocoa.

Production of cocoa in Ghana nonetheless faces several constraints. Low productivity levels of around half or one-third of what is theoretically achievable remain the key challenge. According to the FAO (2017), productivity nonetheless increased from 291 kg/ha in 2000 to 510 kg/ha in 2014.¹⁰³ The low productivity levels are linked to low yielding old trees, lack of labor and aging farmers, a lack of (timely) supply of fertilizers and pesticides. The lack of old tree replacement can largely be explained with the customary land tenure systems existing alongside the state laws. The customary land tenure systems 'skin' in the Northern areas and 'stool' in the Southern areas is based on non-written contracts between farmers and landlords ('chiefs'). The right of farmers to cultivate land often depends on the existence of specific trees, chopping an old tree would thus not only lead to short-term income losses but might also end the contract with the chief. The farmers thus often lack incentives to replace old trees despite low yields. Since the youth does seem to have lost faith in the profitability of cocoa and often migrates to cities, cocoa farmers tend to be of relatively old age. In old age, farmers rely on seasonal workers, further reducing their income. The lack of (timely) supply of key inputs is often blamed on the partial inefficiency and ineffectiveness of COCOBOD's operations. Farmer's also partially use the supplied inputs for other

¹⁰² Historically, the share has substantially increased from around 50% of the gross FOB price in the 1980/90s.

¹⁰³ Various interviewees have estimated the yields to be around 350-400 kg/ha.

crops or sell it to other farmers also in Côte d'Ivoire. According to Barrientos et al. (2007: table 7.1 and 7.5) and Monastyrnaya et al. (2016: appendix 1), other key issues faced by farmers include inflation, inter-seasonal price fluctuations, the high cost of inputs and equipment, diseases and pests (black pod, capsids), droughts and lack of irrigation systems, insects and mistletoe destroying parts of the trees or declining output, low soil fertility and limited access to credit.

In Ghana, about 25 **LBCs** are responsible for the purchasing of cocoa, intermediate storage and its transportation to designated take-over centers of CMC in Tema, Takoradi and Kumasi. The LBCs work closely together with the QCD, which tests and seals the beans in sacks. The largest LBCs are the Produce Buying Company (PBC), Cocoa Merchants Ghana and Akuafu Adamfo. Together, they had around 63% market share in 2011/12 (Gayi/Tsowou 2016). Some of the LBCs are owned by international traders, processors or producer cooperatives (Kuapa Kokoo). The PBC used to be a subsidiary of COCOBOD with a cocoa purchasing monopoly; however, a multiple cocoa purchasing system for internal marketing of cocoa was introduced to increase competition in 1993 (Essegbey/Ofori-Gyamfi 2012). Today, the PBC remains the largest LBC with a market share of around 33%. The PBC is listed at the stock exchange, with the public Social Security and National Insurance Trust holding around 38% of the shares (ibid.). The PBC also acts as a buyer of last resort, thereby ensuring market access and income for remote farmers. Despite the relative high market concentration, many LBCs try to attract and retain farmers by giving access to credit facilities, extension services, gifts or bonuses (Barrientos/Asenso-Okyere 2009).

Until the 1990s, **cocoa processing** (grinding) in Ghana was largely limited to the state-owned and now partially privatized Cocoa Processing Company (CPC) and to the joint venture West African Mills Company (WAMCO). Since the 2000s, multinational processing companies and local private investors have established grinding factories in Ghana. Today, Ghana has a processing capacity of around 436,000 tons. Multinational companies with processing capacities in Ghana include Cargill, Barry Callebaut, Olam and Touton with a market share of around 47% (Table 35). The largest Ghanaian processing companies are CPC and Niche Cocoa Industry. Various other smaller processors exist, but not all of them are operational and some have also been reported to be indebted to COCOBOD. This situation has furthered low capacity utilization in recent years.¹⁰⁴ Processors in Ghana often specialize and not necessarily produce all intermediary cocoa products.

The growing capacity in the cocoa grinding sector was the key driver in the growth of non-traditional exports – defined as exports excluding cocoa beans, lumber and logs, unprocessed gold and other minerals, and electricity – from USD 778 million in 2005 to USD 2,522 million in 2015 (GEPA 2017). Exports of processed cocoa products (paste, butter, powder) increased from USD 111 million in 2005 to USD 725 million in 2015 (Table 36).¹⁰⁵ In 2015, the largest importers of processed cocoa products from Ghana were the Netherlands (36%), Turkey (11%), Germany (7%) and Russia (6%).

¹⁰⁴ ICCO (2016) estimates grinding output in Ghana to be at around 210.000 thousand tons, which suggests capacity utilization to be around 50% in 2015/16. Multinational companies tend to have capacity utilization levels close to full utilization, however, limited supply of small beans has been a problem in recent years.

¹⁰⁵ Data represents import data of the world vis-à-vis Ghana. The Ghana Export Promotion Authority (2017) reports exports of USD 618 million of processed cocoa (excl. shells and husks) in 2015.

Table 35: Processing capacity in Ghana (2016)

Origin		Processing capacity* (thousand tons)	Share of total capacity (%)
CH	Barry Callebaut	67	15
USA	Cargill	65	15
GH	Cocoa Processing Company	64.5	15
SGP	Olam	42	10
GH	Niche Cocoa Industry	40	9
GH	Plot Enterprise	32	7
ECU	Real Products Limited (Cafiesa Int. Group)	30	7
FR	Cocoa Touton Processing Company	30 (expansion to 60)	7
	Others	65.5	15
Total		436*	100

Note: Not all companies are operational; *Estimates.

Source: Various sources, including Ecobank (2014), ACET (2015), interviews and company websites.

Table 36: Exports of processed cocoa products (2005/15, million USD)

	2005	2015	Share (%)
Cocoa paste	57.8	382.7	
Netherlands	4.3	84.9	22.2
Germany	6.3	38.2	10.0
Turkey	-	37.9	9.9
Cocoa butter	52.0	241.3	
Netherlands	11.2	146.2	60.6
Turkey	-	35.1	14.6
United Kingdom	9.2	22.4	9.3
Cocoa powder	1.4	101.3	
Netherlands	0.0	28.5	28.1
Belgium	0.0	25.9	25.6
USA	0.0	13.0	12.8
Total	111.2	725.3	
Netherlands	15.5	259.6	35.8
Turkey	-	77.6	10.7
Germany	7.4	41.3	6.7
Russia	3.7	40.7	5.6

Note: Totals may differ due to rounding; Data represents imports of reporting countries.

Source: UN Comtrade 2017

Investments in processing were incentivized by a 20% discount on light crop beans for processors in Ghana as well as tax reductions¹⁰⁶ and other export processing zone benefits. Since light crop beans trade at a lower price on the international market (around 12-15%), the real discount of light crop is equivalent to around 5-7% (Whitfield et al. 2015: 244). Processors have argued that the discount on light crop is crucial in order for processing in Ghana to be profitable, since high electricity costs, unreliable power supply and increased transportation costs for processed goods¹⁰⁷ impede cocoa processing (Laven

¹⁰⁶ The key tax incentives include tax exemptions from income tax on profits for 10 years and a maximum of 8% thereafter (Newman/Page 2017: table 1 for more details).

¹⁰⁷ Cocoa liquor and butter have to be shipped in solid form and remelted for further processing.

2010; Whitfield et al. 2015). Another reason for increasing investments in Ghana and expansion of 'origin grinding' in general is the industry's fear of cocoa bean scarcity in the light of increased chocolate consumption (in particular in Asia) and limited expansion of cocoa production. Increasing grinding capacities in originating countries is part of multinational processors strategy to secure the supply of cocoa beans by establishing closer relationships with actors in the upstream segments of the value chain, and in Ghana in particular with COCOBOD/CMC (Laven 2010).

Local processors with no access to the international market also suffer due to the high cost of finance in Ghana which not only hinders capital investments, but also the purchase of beans. COCOBOD used to give loans to local processors to buy cocoa beans and hence reduced the local processors disadvantage vis-à-vis multinational companies which have access to the international financial market and thus lower cost of finance. However, the service of debts was problematic which led to the abolishment of this facility.¹⁰⁸

The biggest issue for the cocoa processing sector in Ghana is nonetheless the low production of small beans and thus the limited supply of beans that processors are able to buy at a discount, furthering low capacity utilization. It is also possible that the increased use of hybrid seeds in the last decade will further reduce the supply of light crop in the future. To tackle this issue, processors can either increase the share of normal beans (which is often relatively unattractive for multinationals due to higher electricity and transportation costs and limited blending opportunities), import beans from Côte d'Ivoire (which generally are of lower quality, have to be transported and also might not fit in the branding strategy of processors), or, in case of multinational companies with global processing capacities, reduce processing in Ghana.

A key problem of the current regulation of the cocoa processing sector is the controversial economic benefits for Ghana. Tax incentives and a discount on light beans has created only around 2,000 direct jobs (FAGE 2016) in the capital intensive processing sector albeit various linkages to the local economy.¹⁰⁹ Most importantly, the discount on light beans implies a lower income of COCOBOD and thus farmers due to the reduced average FOB price. Whitfield et al. (2015) point out that COCOBOD (and in particular CMC) was the key actor pushing against a further increase of the discount and also lobbied for its abolishment during the rule of the National Democratic Congress (NDC). A study by Dalberg (2014: 38f.) also highlights that technology transfer of multinational to local processors has been limited in part due to exemptions from any requirements for local ownership and linkages in the processing segment. On the other side, however, Ghana profits from processing due to an increased demand of cocoa beans and a more diversified export portfolio as well as the possibility to pursue further manufacturing particularly for the local and regional market.

Chocolate manufacturing in Ghana is dominated by CPC, which produces chocolate bars and other products (dragees, snacks, couverture, drinks) mainly for the local and regional market (esp. Nigeria) under the Golden Tree label.¹¹⁰ In 2013/14, revenue of chocolate confectionary was USD 6.1 million USD (CPC 2014). About one tenth of the chocolate manufacturing revenue was generated due to exports, which has however decreased recently. Niche Cocoa Industry, a Ghanaian processor with 284 employees who

¹⁰⁸ Some companies, including WAMCO, CPC, Afrotropic and Real Products are reported to be indebted to COCOBOD. WAMCO has been liquidated in 2016.

¹⁰⁹ For example, Barry Callebaut claims that it did not only create 106 direct jobs, but also 250 indirect jobs for the supply of materials and services. Barry Callebaut has also contributed to sustainable development via social responsibility programs (USD 1.8 million in three years) on education, portable water, orphanages, houses and transport for employees (FAGE 2016: 13). Other multinational processors have similar programs.

¹¹⁰ CPC produces intermediate products mainly for the export market and chocolate mainly for the local market.

mainly sells intermediate products to multinational companies such as Touton and Olam, is currently vertically integrating into chocolate manufacturing and particularly aims at the local and Asian market. Other major manufacturers in Ghana include Nestlé Ghana, which among other food products produces chocolate drinks (Milo), and Kraft Heinz Company (former Cadbury and Cadbury-Kraft), which also produces chocolate drinks (Richoco). Divine chocolate is an example of a Ghanaian chocolate manufacturer in Europe (Divine Chocolate n.d.). The company is partially owned by farmers of the Kuapa Kokoo cooperative and produces fair trade chocolate in Europe due to lower production costs.

The key competitors of Ghanaian chocolate manufacturers are multinational companies. Imports of chocolate products (HS 1806) have grown from USD 1.7 million in 2005 to USD 5.7 million in 2010 (UN Comtrade 2017).¹¹¹ In 2015, Ghana imported USD 8.2 million of chocolate products, with the Netherlands (44%), China (17%) and Turkey (10%) being the largest exporters. Herein, import of chocolate bars (HS 180631/32) remain comparatively low with USD 0.8 million. Exports of chocolate products, on the other hand, decreased from USD 8.8 million in 2010 to USD 5.2 million in 2014. Exports of chocolate bars remain insignificant (*ibid.*).

In general, manufacturing chocolate in Ghana for exports and the local as well as regional market has several key constraints: (i) high costs of production due to high electricity prices¹¹² and the need to import important inputs such as milk and sugar (in part from the EU), (ii) high cost of finance for local investors, (iii) high transportation costs for exports due to the need for a continuous cooling chain, (iv) large multinational competitors with economies of scale and scope, advanced know-how and manufacturing facilities in the key consumer markets of chocolate, (v) a small (but growing) and competitive local as well as regional market, and (vi) underdeveloped product development compared to European standards.

4.4.3. Impact of the EPA

The ECOWAS-EPA and the Interim-EPA affect the cocoa value chain in various ways. Most importantly, the EPA consolidates and grants continuous and secured DFQF market access to the EU market. Given Ghana's lower middle income country status, it does not qualify for EBA and hence would face GSP or even MFN tariffs. The higher MFN tariffs could be applied as cocoa exports could be excluded from GSP due to their large share in total exports to the EU.¹¹³ For the largest cocoa export product, cocoa beans¹¹⁴, the effect is most limited as GSP or MFN tariffs of this product are zero.

The effects would be most important for intermediate cocoa products – cocoa paste, butter and powder – and hence the processing (grinding) sector in Ghana. No immediate effects after the implementation of the EPA can be expected since the EU unilaterally granted DFQF access to its single market via MAR.¹¹⁵ However, intermediate cocoa products would face GSP or even MFN tariffs without the implementation of the EPA. The introduction of tariffs would have to be paid on EUR 340.8 million exports of cocoa products to the EU in 2015 which includes cocoa paste (6.1% to 9.6% tariff, EUR 208 million exports in 2015), cocoa butter (4.2% to 7.7%, EUR 101 million) and cocoa powder (2.8% to 8%, EUR 31 million) (Table 37).¹¹⁶

¹¹¹ Data represents exports to Ghana.

¹¹² High electricity prices are not only a problem for production, but also for stocks that need to be refrigerated.

¹¹³ Regulation (EU) No 978/2012, Article 8 and Annex VI

¹¹⁴ Cocoa shells, husks and other waste (HS 1802) are also not affected.

¹¹⁵ Previous to MAR, Ghana did not pay tariffs on cocoa products due to the Cotonou Agreement.

¹¹⁶ Data on these shares varies by source. According to GEPA (2016), the EU imports roughly 29% of total Ghanaian cocoa paste and butter and only 7% of cocoa powder. This data does however not differentiate between cocoa paste and butter.

Processors in Ghana have thus lobbied for the ratification of the EPA, since the profitability of their operations was at stake. The introduction of these tariffs would largely offset the key incentive for cocoa processing in Ghana – the discount on light beans. The effect of the EPA on cocoa processors differs, however, depending on their share of EU exports and shares of tariff affected products. Barry Callebaut, for example, was a key player in lobbying in favor of the EPA, since roughly 80% of their output is exported to the EU (FAGE 2016) and the factory in Ghana produces only cocoa paste and nibs with cocoa paste facing the highest tariffs (Ecobank 2014).

Table 37: Tariff effects of the EPA in the cocoa sector

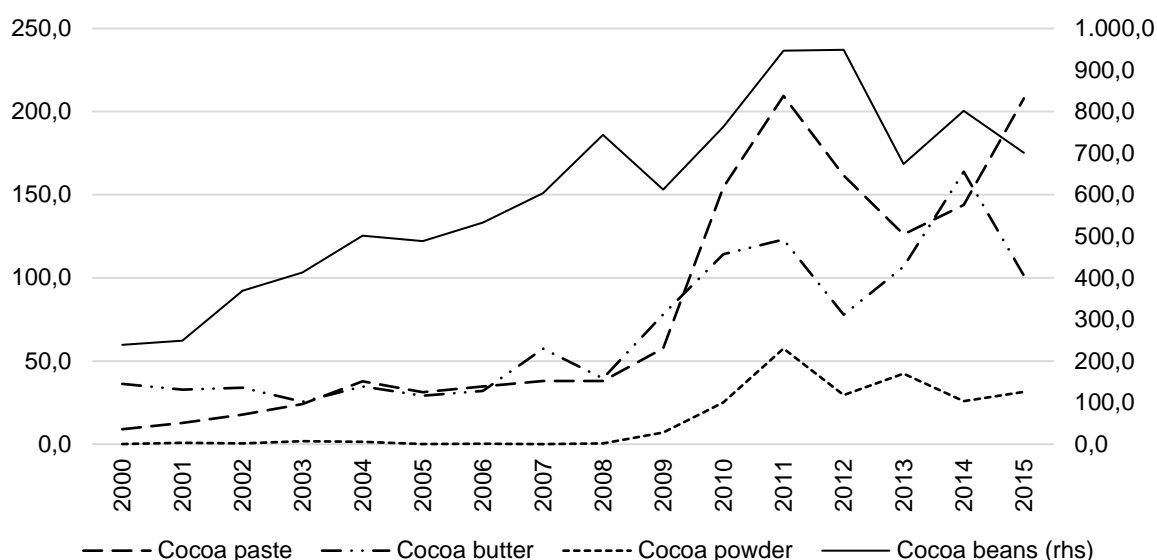
HS	Products	EU-GH imports (EUR million, 2015)	EPA/MAR tariffs	GSP tariffs	MFN tariffs
1801	Cocoa beans	700.81	0	0	0
1803	Cocoa paste	208.05	0	6.1	9.6
1804	Cocoa butter	101.30	0	4.2	7.7
1805	Cocoa powder	31.42	0	2.8	8

Source: TARIC 2016; Eurostat 2016; ECOWAS-EPA 2015

Hence, without the EPA, cocoa processors would have faced a very difficult position in the European market. Cocoa processors would thus have had the option (depending on their relative affectedness) (i) to shift parts of the exports to other markets, (ii) in the case of multinationals, to reduce processing output and capacity utilization in Ghana and increase processing in Europe, (iii) depending on the power relations, push for an increase of the discount on (light) beans or other benefits, or (iv) close down the processing operations in Ghana. It is therefore very likely that the non-ratification of the EPA would have had negative effects on the promising development of processed cocoa exports to the EU market of the last decade.

But also with the EPA, the processing sector is currently struggling related to high energy prices, high financing costs for Ghanaian processors and, most importantly, a lack of supply of light crop beans. This is also seen in the volatility of cocoa products exports to the EU (Figure 18). Hence, EPA ensures DFQF EU market access on a sustainable basis but for a promising future of the Ghanaian processing sector also local competitiveness issues have to be tackled as well as global and regional developments taken into account, most importantly global bean production and chocolate demand and the political development in Côte d'Ivoire. This is because multinational companies are not only processing in Ghana for reasons of cost-efficiency, but also in order to establish close relationships with key actors in cocoa producing countries and secure the supply of cocoa beans in the light of potential future cocoa bean scarcity.

Figure 18: Ghanaian exports of cocoa products to the EU (2000-2015, million EUR)



Source: Eurostat 2016

The effects of the EPA on the chocolate export sector are more limited related to the marginal export of chocolate products to the EU and the limited prospects of developing these exports at least in the near future; for chocolate manufacturing the local and regional markets offer better prospects. But in the longer term secured and continuous DFQF access for chocolate product to the EU market though the EPA could become important. Without the EPA, GSP or MFN tariffs on chocolate products (1806) would account for between 2.8% and 8.3% plus an ad-valorem duty (WTO 2016).

On the import side, chocolate product imports from the EU are the major competition of chocolate manufactured in Ghana. Imports of chocolate products face a 35% ECOWAS CET-tariff and this tariff will remain as chocolate products are excluded from liberalization in Ghana (MADB 2017; ECOWAS-EPA 2015). Since the standstill clause of the EPA only targets liberalized tariff lines, Ghana and the ECOWAS region could theoretically even opt for higher tariffs in accordance with WTO rules in order to protect the domestic market. Chocolate manufacturers furthermore benefit from the liberalization of other import tariffs, since various inputs for domestic production are in part sourced from the EU (e.g. sugar, milk powder) and partially affected by the EPA. However, the effects are rather small since inputs such as bulk milk powder already have a relatively low tariff (5%) (MADB 2017; ECOWAS-EPA 2015).

Rules of origin (RoO) do not play an important role in the cocoa sector in Ghana neither do SPS issues as there exist well established processes for quality control organized through COCOBOD. However, in the processing segment local processors may face some challenges that hamper their export potential in the EU. TBT issues will become particularly important in the potential future development of chocolate manufacturing export sector. EPA-related development cooperation could address these challenges.

On the development cooperation side, the cocoa sector would benefit from and qualify for most principles laid down in the development cooperation articles of the ECOWAS-EPA (see Section 4.4. for a more detailed discussion).¹¹⁷ For example, Article 46:2 states that the ECOWAS-EPA should help to increase productivity, competitiveness and diversity of

¹¹⁷ In particular Article 1, 3, 46 and 48.

output in the agriculture sectors as well as facilitate the development of a processing sector. Even though the promotion of the cocoa sector per se would not necessarily enhance the diversification of the economy given the importance of cocoa in total exports, supporting processing activities to ensure their longer term sustainability and growth would play an important role for diversifying and increasing value of agricultural exports. However, the focus should especially be on supporting local processors through tackling their key bottlenecks, most importantly access to finance, and through enhancing their linkages with multinational companies to foster learning. Further, given the centrality of this sector in the Ghanaian economy and even more for the livelihood of farmers, measures that support the productivity as well as the sustainability of farming activities are central from a development perspective.

4.4.4. Conclusion

The cocoa sector in Ghana has developed significantly in the last decade; however, low-productivity and a high dependence on cocoa income remain the key constraints in improving the livelihood of farmers. Many issues faced by cocoa producers worldwide (see Gayi/Tsowou 2016) are nonetheless mitigated by COCOBOD's services. COCOBOD has been a major factor in increasing the production and quality of cocoa as well as – to some extent – counterbalancing the asymmetric relationship between smallholders and large multinational cocoa traders and processors. Measures to increase productivity and crop diversification and reforms to increase the net FOB price (e.g. increasing efficiency of COCOBOD, mid-seasonal adjustment of the minimum price for inflation, etc.) are key in order to enhance the livelihood of cocoa producers. Generally, COCOBOD's role in the cocoa sector has been central and should not be undermined. To the contrary, COCOBOD should be supported to improve its operations and services and be seen as a key partner in any activity in the sector.

The cocoa value chain in Ghana is an example of successful functional upgrading in more capital intensive albeit still low-value added activities in a cash-crop value chain. The grinding sector is dominated by multinational companies and has experienced impressive growth rates despite recent setbacks due to over-indebtedness of various (especially local) firms. The promotion of the processing sector in Ghana is an outcome of incentives (discount on light beans, tax reductions) and a change in lead firms' strategies to secure the supply of cocoa beans in the light of increased chocolate demand and global supply insecurities. The benefits of processing in Ghana are however controversial due to low-employment creation and incentives at the cost of COCOBOD, farmers and general tax income. The development of the processing sector nonetheless yields important development potential if the performance of local processors with stronger linkages to the Ghanaian economy can be improved. A development strategy promoting the processing sector needs not only to improve the business environment (lower cost of finance and electricity, e.g. via special incentives for local firms), but also needs to ensure that learning for increased productivity and quality in local processors can be enhanced by increasing their linkages to international processors. Local processors have also potential for vertically integrating into chocolate manufacturing.

The boom of the grinding sector in Ghana is not replicated in the chocolate sector. The challenges in the chocolate sector are numerous, however, the competition with large multinational companies producing in large consumer countries and the limited development of the local and regional market are the key constraints for local chocolate production. Chocolate production in Ghana is nonetheless possible, as has been shown by some companies. Chocolate manufacturers in Ghana should thus further try to capture a larger share of the local, regional and emerging markets and explore particularly product upgrading

opportunities. A regional strategy with Côte d'Ivoire could be very beneficial in this regard, particularly as this could alter power asymmetries relative to multinational companies given that Ghana and Côte d'Ivoire are the two largest cocoa producer countries worldwide. A strategy to build a regional cocoa processing and chocolate manufacturing hub would also greatly benefit from stronger cooperation between the two countries.

The ECOWAS-EPA and the Interim-EPA secure continuous DFQF market access for Ghanaian cocoa products in the EU. These tariff impacts particularly affect the processing and potential chocolate manufacturing segment of the cocoa value chain in Ghana. Without the EPA, processors, manufacturers and buyers with a large share of EU exports would be affected the most by the introduction of GSP or MFN tariffs. Intermediary cocoa products would have been affected by MFN tariffs between 7.7% and 9.6% and chocolate products by MFN tariffs between 2.8% and 8.3% plus an ad-valorem duty in the case that the EC would exclude Ghanaian cocoa products from GSP. Hence, the non-ratification of the EPA would have had negative effects on the promising development of processed cocoa exports to the EU market of the last decade and would have limited any potential of the development of chocolate exports to the EU. On the import side, imports of chocolate products are excluded from liberalization which allows protection of the local and regional markets. But also with the EPA, particularly the cocoa processing and chocolate manufacturing sector is currently struggling given local competitiveness issues. These issues could be addressed through EPA-related development cooperation, ideally in tandem with supporting the development of effective local institutions focusing on the cocoa processing sectors. This would play an important role for diversifying and increasing value of agricultural exports in Ghana. With regard to cocoa beans production, measures that support the productivity as well as the sustainability of farming activities should be the focus of EPA-related development cooperation to ensure the livelihood of farmers. COCOBOD would be a key partner in such activities. Hence, the impact of the EPAs on the cocoa sector will also depend importantly on development cooperation funds channeled to the sector.

4.5. CASE STUDY III: Effects of the EPA on the fruit and mango sector in Ghana

The sectorial case study of the fruit and mango sector in Ghana shows the importance of specific sector and value chain dynamics as well as local conditions in being able (or not) to use market access potentials on the export side. To understand the development implications of the EPAs for ACP fruit exporting countries, it is crucial to analyze the regulatory changes the EPAs have brought. But the analysis of regulatory changes has to be done in combination with assessing competitive business dynamics within the specific fruit GVC and particularly the sourcing and investment strategies of lead firms to understand potentials and limitations for export responses. But also local conditions clearly have a large impact on the possibilities to use the export potential of the EPAs. Specifically, in SSA countries local productive and institutional capacities and capabilities on the firm side as well as the government side are often very restricted which limits entrepreneurial and policy response to the EPAs. This once more highlights the importance of development cooperation to support sector-specific policies and projects at the national and regional level.

From a development perspective, it is not only important to improve conditions and outcomes in production for agricultural sectors but also to assess and support opportunities for upgrading to higher value added activities that often involve processing. The fruit value chain is an example of a non-traditional agriculture value chain with an increasing tendency to outsource low-value added production and processing activities to developing countries (Fernandez-Stark/Bamber/Gereffi 2011). Lead firms in core-countries tend to have tight control over the chain and limit market access of producers via restrictive private-sector

regulations and standards in order to ensure the quality of the products as well as customize the supply to the demands of consumers.

The case study of the Ghanaian mango sector highlights the importance of development cooperation in order to improve non-traditional exports and market access to the EU. The promotion of the mango sector in Ghana is an example of an agricultural-based export diversification strategy with strong support of donor agencies. The next section starts out with an overview of the global mango value chain and highlights its dynamics as well as asymmetrical power relations. In the following, we describe the mango sector in Ghana by focusing on the role and key challenges of mango producers and processors. Based on this analysis, we discuss the potential impact of the EPA on the sector. We conclude by examining the development implications of the EPA as well as the potential for functional upgrading to processing in Ghana.

4.5.1. The Global and EU Mango Value Chain

The global fruit value chain is buyer-driven, with large supermarkets exerting strong control over the entire chain. The lead firms are predominantly situated in the key export markets, the EU, the USA and emerging markets, and try to enhance their cost-competitiveness and quality and product differentiation through strict demands on how fruits are produced, harvested, transported, processed and stored. Private standards and codes of conduct are key in governing the characteristics of the product, post-harvesting handling and social and environmental conditions. In order to achieve and maintain market access, suppliers thus not only have to meet public sector standards related to SPS and TBT issues, but also more comprehensive private sector standards (Fernandez-Stark/Bamber/Gereffi 2011: 8ff).

These requirements of lead firms have led to closer linkages and long-term relationships between producers and exporters in order to achieve and maintain consistent supply, quality and traceability (Reardon et al. 2009). Over the last two decades, buyers have also shifted comparatively lower-value added activities (e.g. packaging, juicing, drying, etc.) to producer countries. This has created upgrading opportunities for suppliers in developing countries, with more fruits now being processed (washed, chopped, mixed, packed) and exported as ready-to-sell products (Humphrey 2005: 4; AfDB/OECD/UNDP 2014: 164).

The fruit and mango value chain can be roughly divided into 4 to 5 stages: (i) the supply of inputs; (ii) the production of the mango, including growing of the tree and harvesting the fruit; (iii) the transportation, packing and (cold) storage for the local, regional or export market; in cases where the mango is not consumed fresh, (iv) the processing of the mango (e.g. dried, fresh cut, pulps, concentrate, juices, fruit bars, jams, canned and others); (v) the distribution and marketing of the fresh fruit or processed product, with supermarkets being the most important players in the export markets.

Global mango production increased from around 30 million tons in 2004 to 45 million tons in 2014 (FAO 2017). Seven countries produce nearly three quarters of the global production. Asian countries, including India (41% of global production), China (10%), Thailand (8%), Indonesia (5%) and Pakistan (4%), dominate the global production of mangoes (Table 38). Mexico (4%) and Brazil (3%) are the largest mango producers outside the Asian continent. Western Africa (4%) is only a small player in global mango production. In 2015, the largest exporting countries of mangoes in volume were Mexico (20% of total exports), Thailand (13%), India (10%), Brazil (9%) and Peru (8%) (UN Comtrade 2017). High domestic consumption in countries such as India and China accounts for the difference between comparatively high production and low export levels.

Table 38: Global mango production (2014) and exports (2015)

		Production volume (thousand tons)	Share of global production (%)	Export volume (thousand tons)	Share of global exports (%)
1	India	18,431.33	40.8	173.81	10.4
2	China (incl. HK)	4,674.95	10.3	31.31	1.9
3	Thailand	3,597.59	8.0	218.82	13.1
4	Indonesia	2,431.33	5.4	39.50	2.4
5	Mexico	1,754.61	3.9	331.15	19.8
6	Pakistan	1,716.88	3.8	43.71	2.6
7	Brazil	1,599.73	2.5	156.56	9.4
	Other	1,132.46	25.4	678.13	40.5
	Total	45,225.21	100	1,672.99	100

Note: Data on trade includes fresh and dried mangoes as well as guavas and mangosteens. Dried mangoes are significantly lighter than the fresh fruit. The data on production and export volume is thus not comparable.
Source: FAO 2017; UN Comtrade 2017

The largest global importers of fresh and dried mangoes¹¹⁸ by volume are the USA (27% of global imports) and the EU, with the Netherlands (10%), Germany (5%), the UK (5%), France (3%), Spain (2%), Portugal (2%) and Belgium (2%) being the largest global importers (UN Comtrade 2017). Even though the EU has a relatively low per capita mango consumption, the importance of the market is growing. The largest exporters to the EU market were Brazil (37% of total EU mango imports in volume), Peru (26%), Côte d'Ivoire (8%), Israel (5%), Senegal (4%) and the USA (3%). The largest West African countries exporting to the EU were Côte d'Ivoire (8%), Senegal (4%), Mali (2%), Burkina Faso (1.5%) and Ghana (0.9%) (ibid.).

Table 39: Global imports of mangoes (2015)

		Volume (thousand tons)	Share of global imports (%)
1	USA	405.96	26.6
2	China (incl. Hong Kong)	155.19	10.2
3	Netherlands	147.89	9.7
4	United Arab Emirates	88.16	5.8
5	Germany	72.84	4.8
6	United Kingdom	71.52	4.7
7	Saudi Arabia	64.82	4.2
8	Canada	56.31	3.7
9	Malaysia	55.14	3.6
10	France	41.45	2.7
11	Spain	36.00	2.4
	Other	330.14	21.6
	Total	1,525.44	100

Note: Data on trade includes guavas and mangosteens.
Source: UN Comtrade 2017

¹¹⁸ Data includes guavas and mangosteens.

Mangoes are a high value crop with the potential to increase the income of farmers. The income in particular of smaller mango producers varies widely and largely depends on the situation of the local market and their market access to core consumer countries. The local market tends to yield the lowest profit for mango producers. Upgrading includes the export (mostly via intermediary exporters) of the mango to core countries by meeting buyers' specifications. The EU-MFN duty on fresh or dried mangoes is zero; however, market access is restricted by standards and regulations. The production and export of the fresh fruit to supermarkets in core countries tends to yield the highest profit for mango producers due to the most restrictive specifications. For mango growers with the intent to export the fresh fruit to the EU, GlobalG.A.P certification is fundamental. The highest prices are paid for organic certified mangoes (no use of synthetic pesticides and mineral fertilizers).

GlobalG.A.P. is a comprehensive private sector standard that seriously constraints market access of mango producers around the world. The requirements for GlobalG.A.P. certification include obligations on site, soil, water, pest and fertilizer management, workers health and safety, environmental issues, traceability and others. The fruit and vegetable standards thus cover all stages of production, from pre-harvest activities to post-harvest handling (GlobalG.A.P. 2016, 2017). In order to be able to export fresh mangoes to the EU, the fruit must also meet various other buyers' specifications (e.g. undamaged skin, skin color, etc.). To create reliable access to the EU market, the exporters must also establish long-term relationships to buyers and earn their trust in being able to deliver timely and the specified quantity and quality. Fresh and processed mango products exported to the EU must also fulfill public standards related to SPS (esp. regarding pesticides, pest, diseases) and TBT issues (e.g. labeling).

The processing of mango in developing countries is key in order to add-value. Opportunities for functional upgrading include the production of dried mangoes, fresh-cut products, pulp and concentrate, juice, canned mango, and various other food products (e.g. fruit bars, jam, etc.). Mango processing in developing countries is also beneficial for mango producers since it secures and increases demand (and potentially income/prices) and diversifies buyers' channels, which gives more flexibility in fulfilling requirements. For example, producers of dried mango or mango juice tend to pay lower prices to farmers compared to exporters of fresh fruits due to their lower requirements. However, processors buy and thereby create demand for fruits of a different quality and lower certification standards. The differentiated requirements for mangoes between various buyers, the existence of dozens of mango varieties and the differences in seasonality between countries creates a global, regional and local multi-price system with high seasonal and inter-seasonal price volatility.

4.5.2. The mango sector in Ghana

Historically, agricultural policies in Ghana have changed from smallholder-led farming to state-led farming and back to smallholder and medium-scale production after the breakdown of the state-led agricultural production and the return of neoliberal policies in the 1980s (Torvikey et al. 2016). Until the 1990s, Ghana relied heavily on the export of cocoa beans and other traditional exports (see Section 4.4. on the cocoa value chain). The diversification into non-traditional agricultural crops started in the 1980s under the Rawlings-regime and took off in the 1990s and has been supported by various national and international programs¹¹⁹ until today (Ouma/Boeckler/Lindner 2013). This has resulted in the

¹¹⁹ There have been many programs supporting non-traditional agricultural production in Ghana, including the Agricultural Diversification Project (1991-1999) and the Agricultural Services Sub-Sector Investment Programme (2000-2006) of the World

growth of non-traditional agricultural crop production and exports such as yams, pineapples, mangoes, bananas, shea nuts and oil, cashew, fish and others (GEPA 2016).

The cultivation of mangoes for exports was introduced in 1997 with strong support of USAID (1997-2007/08) and in collaboration with the Adventist Development and Relief Agency (ADRA). The overall goal of the applied agro-forestry intervention approach was to promote tree crops (mango, cashew, oranges) for commercial use. Intercrops (e.g. maize, pepper, beans, etc.) within the tree crops were cultivated in order to mitigate the income shortfall during the growing time. The harvesting of mangoes started in the early 2000s and took off after the 2007/08 season (Figure 19). In 2009, the Export Development Investment Fund (EDIF) initiated the National Mango Plantations Development program in order to extend mango production, in particular in the Northern Region. Eastern, Brong-Ahafo, Northern, Greater Accra and Volta regions are among the key mango producing areas. The increase of farmers' income due to the cultivation of a high value crop thus also benefited rural regions with comparatively higher poverty levels (Osei 2007; Abdul-Razak et al. 2015).

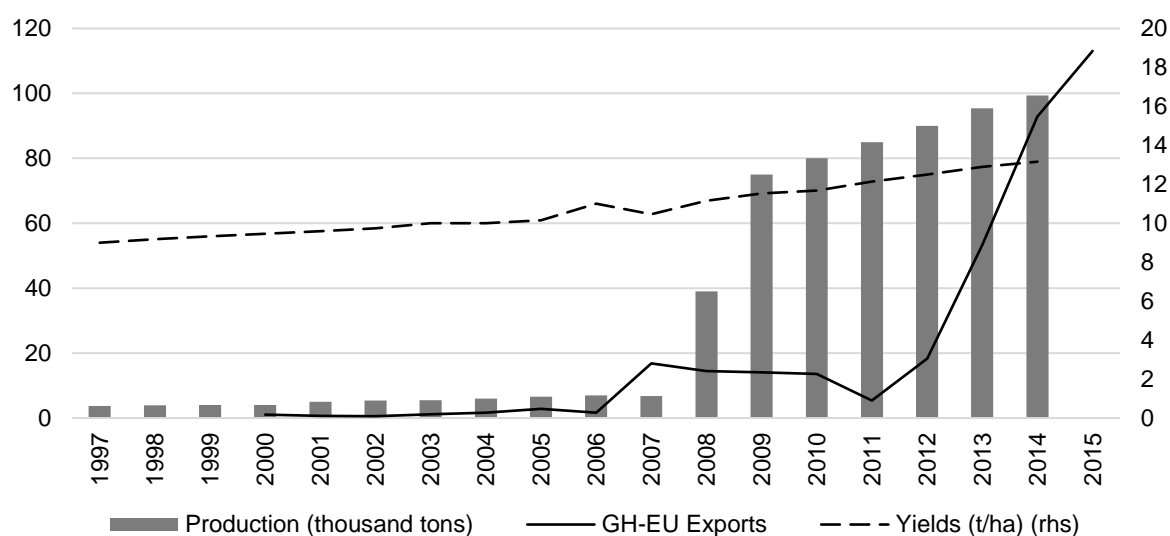
Today, it is estimated that Ghana produces close to 100 thousand tons of mangoes every year (0.2% of global production) (FAO 2017). The output of mangoes is expected to grow significantly due to the continuous extension in recent years. Hence, the impact of the mango extensions on the Ghanaian mango sector, particularly on prices and income of farmers, market access of producers, and export and processing shares needs to be carefully monitored in order to assess further policy options. Ghana has two mango seasons, the minor season between December and February and the major season between May and July. Keith (80-90% of all fruits) and Kent (5-10%) are the main mango varieties grown in Ghana. Other varieties include Palmer, Tommy Atkins, Brooks and Hayden. Comparatively humid climate conditions in Ghana increase the proneness for pest and diseases and thus crop failure.

The EU is the single most important export market by value for Ghanaian fresh and dried mangoes, with a market share between 75% (2013) and 80% (2015). The second largest export markets are Switzerland (18% in 2015) and Lebanon (10% in 2013). Within the EU, the by far largest export market is the UK (77% of Ghanaian EU imports in 2015), followed by Italy, Germany and France (7% each) (UN Comtrade 2017). Exports of fresh and dried mangoes to the EU first increased in 2007 to EUR 2.8 million and decreased to EUR 0.9 million in 2011 (Table 39). Since then exports expanded from EUR 3.1 million in 2012 to EUR 18.8 million in 2015 (Eurostat 2016). Exports to the EU are expected to grow with increasing output.

The key competitors of Ghana are countries with similar mango season cycles and include Peru, Ecuador, South Africa, Pakistan and others (Table 40). For fresh as well as fresh-cut and packaged mangoes, sweet and fibreless varieties are high in demand. Important mango varieties for the European market include Keith, Kent, Palmer and Tommy Atkins; however, there is a trend for diversification (CBI 2016). The prices of mangoes are also greatly influenced by seasonal cycles, but export prices to the EU tend to be lower during the summer months due to the increasing competition with local fruits.

Bank, the Horticulture Export Industries Initiative (HEII) and the Trade and Investment Programme for a Competitive Economy (TIPCEE) funded by USAID, the Export Marketing and Quality Awareness Project (EMQAP) of the African Development Bank, the Market Oriented Agricultural Programme (MOAP) of GIZ and others. The Food and Agricultural Sector Development Policy (FASDEP I & II) were the key policies implemented by the Ghanaian Ministry of Agriculture (Ouma/Boeckler/Lindner 2013). The Ghana National Export Strategy for the Non-Traditional Sector is currently being implemented.

Figure 19: Mango production, yields and exports in Ghana (1997-2014/15)



Note: Data on trade includes guavas and mangosteens; Various interviewees during the field research have called the data on yields into question (the data is perceived to overestimate productivity by a large margin).

Source: FAO 2017; Eurostat 2016

Table 40: Mango season of key competitors (indicative)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Ghana	x	o			o	x	x	o				o
Brazil	o	o	o					o	o	x	x	x
Peru	x	x	o									o
Israel							o	x	x	o		
Ivory Coast				o	x	x						
Dom. Rep.					o	x	x	x	o			
Pakistan					o	x	x	x	o			
Senegal						o	o	x	o			
Costa Rica			o	x	x	o						
Mali			o	x	x	x						
Ecuador	x	x	o									o
Burkina F.			o	x	x	x						
S. Africa	x	x	o									o

Note: x = high supply; o = average/lower supply

Source: CBI 2016

The main segments of the mango value chain in Ghana include (i) input suppliers; (ii) mango producers; and three key sales channels: (iii.a) the local market; (iii.b) mango processors (esp. packing, fresh cut and dried mango) that export processed mangoes; and (iii.c) exporters of fresh and dried mangoes via ship and air freight. In 2015, 98% of fresh and dried mango exports to the EU were sent via air freight (Eurostat 2016).

On the **farmers'** side, there are around 8,000 small family farms producing mangoes and around 30 commercial farms (Arndt 2017). Mango is a high-value crop and the income of

mango farmers can be considerable larger compared to other crops.¹²⁰ Income between mango farmers nonetheless varies and mainly depends on the farm size, access to input supplies and market access (certification, transport connection, connection to packing stations, etc.). The average farm size is estimated to be below two hectares, but there are also large farms with over hundred hectares. Smaller and larger farmers in different regions are often organized as Farmer Based Organizations (FBOs). The scope of FBOs in the mango sector in Ghana differs and their services may include group marketing, training, quality control, advocacy and others.¹²¹ Members of FBOs are more likely to have GlobalG.A.P. certification and access to exporters and processors. Only a small share of farmers engages in contract farming (Osei 2007).

The certification of GlobalG.A.P. is a key issue for many farmers, since it requires know-how and investments. Important challenges faced by mango farmers include pest and diseases such as fruit flies, stone weevils, and anthracnose and bacterial black spot. Limited know-how regarding harvest and post-harvest handling as well as nutrient and floor management are further challenges reducing the income of smallholders (MOAP 2014). Product upgrading to organic mangoes so far has been challenging due to the humid climate conditions and difficulties to control pest and diseases. Ghanaian mango buyers, processors and exporters, report that mango quality and relatively high prices are the main challenges.

Depending on the quality of the produce and certification and infrastructural connection, mango producers sell to mango exporters, processors or the local market. Producers of high quality mangoes that are GlobalG.A.P. certified try to sell their mangoes to exporters and processors of fresh-cut products due to higher prices. Prices paid by dried mango manufacturers are generally lower due to lower requirements. Prices on the local market are not necessarily significantly below the prices paid by processors, however, unstable sales quantities tend to reduce income of farmers with limited market access beyond the local market. Seasonal price volatility, with high prices at the beginning and the end of the season and low prices during its peak, add to farmers' challenges.

Exporters of fresh fruits (e.g. Bomart Farms, Agro Green Limited, Bassam, ITFC, Green Village) either buy from pack houses or send trucks to buy mangoes from the farm.¹²² The mangoes are then transported to the sea- or airport for exporting to the EU. The key challenges for exporters include the supply of certified and quality mangoes, SPS issues and to establish long-term and profitable relationship with buyers' in the EU. Pack houses¹²³ are a condition for export market access of producers and improve cost efficiency of exporters. Ghana currently only has six pack houses, three private and three public/community owned, however, not all of them are operational. Public investments in pack houses have often not been successful due to limited alignment with the private sector.

The Plant Protection and Regulatory Services Directorate (PPRSD) conducts quality controls on farms, in pack houses and on sea- and airports, however, SPS issues in mango exports to the EU have been reported repeatedly in the past. Exporters also often struggle

¹²⁰ Arndt (2016) estimates the average income per family farm and year for mangoes to be considerable larger (EUR 3,500) than for maize (EUR 150), rice (EUR 300), citrus fruits (EUR 550) or chili (EUR 1,400) and lower compared to pineapples (EUR 8,000) due to the dominance of commercial farms in the latter.

¹²¹ The largest FBOs of mango farmers include the Yilo Krobo Mango Farmers Association (124 farms, 63 of which are GlobalG.A.P certified), the Manya Krobo Mango Farmers Association (89 farms, 19 certified), the Dangme-West Mango Farmers Association (100 farms), the Mid-Ghana Commercial Mango Growers' Association (30 farms and 350 associate members), and the Volta Value Chain Cooperative Fruits and Vegetables Union Limited (17 members, seven mango producer groups) (Schnier/Appiah-Opong 2016).

¹²² Some exporters pick the mangoes themselves from the tree due to better knowledge about buyers' requirements.

¹²³ Farmers bring mangoes to pack houses (or pack houses organize transport), which enables exporters to buy export quality mangoes 'in bulk'.

to build up relationships with buyers in the EU and suffer from their payment conditions. Retailers and importers in the EU often set a minimum-guaranteed price and pay a bonus later (e.g. at the end of the season) if the mangoes have been sold at higher prices. This practice puts price risks on exporters, since the minimum-guaranteed price tends to be set at a very low level and is often not profitable for exporters. In such cases, profitability of exports is determined by price developments in the future, which may lead to opting for reduced mango exports to the EU despite existing orders.

Fruit processors in Ghana often process various fruits available in Ghana, including pineapples, mangoes, papayas, coconuts and others. The pineapple is the most important fruit in the Ghanaian processing sector. The Fruit Processors & Marketers Association (FPMAG) represents the interest of fruit processors; however, key mango processors are not members of the association. In Ghana, mangoes are mainly processed to ready-to-eat 'fresh-cut' and dried mango products. Some companies also produce food bars and juice with a significant mango share. Fruit and mango processing in Ghana is currently dominated by international companies (despite Ghanaian ownership shares), however, linkages to the local economy are well developed. The processing sector benefits the Ghanaian economy due to the higher share of local value added and employment creation. Mango farmers also benefit since processors increase the demand for different varieties and qualities of mangoes, thereby diversifying market access criteria for producers.¹²⁴ The key challenges for mango processors in Ghana include the limited and volatile supply of healthy, high quality and certified mangoes, and their comparatively high prices. Mango processors would also greatly benefit from the cultivation of more mango varieties in order to prolong the Ghanaian mango season.

Mango fresh-cut production is dominated by Blue Skies. PEELCO, an example of another fresh-cut producer, focuses on other fruit products with mangoes making only about 5% of their 100 tons per month exports. Exports of fresh-cut products are only exported by plane to the EU due to the limited shelf life of the product.

Blue Skies was established in 1998 by a British entrepreneur and has its largest production in Ghana, but also entertains processing facilities in Egypt, Brazil, South Africa and the UK with over 4,000 employees. Two British (90%) and a Ghanaian citizen (10%) own the company (Torvikey et al. 2016). With over 3,000 employees, Blue Skies is one of the largest employers in Ghana. Blue Skies Ghana is specialized in exporting fresh-cut fruits via airfreight to the EU within 48 hours after harvesting. The UK is the main export market and buyers include Sainsbury (UK), Waitrose (UK) and other retailers in Switzerland, Italy, the Netherlands, Belgium and France. Blue Skies sources mangoes only from GlobalG.A.P. certified¹²⁵ farmers and has a pool of 'traditional suppliers'. Blue Skies sources from smallholders (esp. cooperatives) and larger farms and employs agronomists in order to assess the farms' practices. In general, mangoes are transported to Blue Skies and are bought at a factory gate price, however, in times of supply issues Blue Skies also organizes trucks in order to pick up mangoes directly from the farms. The sufficient supply of quality mangoes is a challenge and largely restricted by limited GlobalG.A.P. certification and – more importantly – seasonality. For this reason, Blue Skies also imports mangoes from Burkina Faso, Mali, Gambia and Côte d'Ivoire.

¹²⁴ For example, dried mango processors do not need GlobalG.A.P. certification and prefer fruits that are riper and have high sugar content. The specification of fresh-cut processors is less strict on the looks of the skin, but very particular with regard to the taste and consistency of the fruit. Exporters of fresh fruits also have more restrictive criteria regarding the skin of the fruit.

¹²⁵ Blue Skies also adopts other standards, including the Sedex Methodology Ethical Trade Audit (SMETA), Fairtrade, organic and Linking Environment and Farming (LEAF).

Blue Skies has successfully upgraded to juice production as an add-on to the fresh-cut business. Since the processing of fruits produces a significant share of offcuts due to buyers' specification on piece-sizes and shape, Blue Skies started to produce fresh fruit juices of the offcuts mainly for the local market, thereby further increasing value added. The fruit juice is around 4% of Blue Skies' total business and, after recent expansions, fruit juice capacity is now at around 40,000 liters a week. The capacity utilization of juice production is co-dependent with the demand for fresh-cut products. So far, the juice is only produced for the local market. Regional exports to Nigeria could be a future strategy. There are currently no juice exports to the EU due to the short shelf life of the fresh juice as well as transportation costs which make it difficult to compete with juice producers based in the EU.¹²⁶

There are currently two dried mango processors: Hans Peter Werder (HPW), a Swiss company, and the Integrated Tamale Fruit Company (ITFC), established in 1999 with Dutch-Ghanaian co-ownership.

HPW produces dried fruits, dried pulp and fruit bars, and currently has 770 employees in Ghana. The mango product lines were introduced in 2011 and capacities have been expanded consistently in the last five years. Bulk exports of dried fruits (mango, pineapple, coconut) are around 85% and mango processing is around 60% of the sales. HPW also produces fruit bars (around 5% of total sales) and dried fruit pulp (10% of sales). Other mango products (sour and crispy mango) are currently in development. Buyers of the bulk ware are importers and retailers with packaging facilities. In 2016, HPW exported 720 tons of dried mangoes.¹²⁷ Key export markets are Switzerland, Germany and Italy. Importers distribute the packaged dried mango products across European retailers. The production generally runs six months a year and around two-thirds of the processed mangoes are sourced locally during the mango season and one-third is imported during April and May. The largest supplier is the Yilo Krobo Mango Farmers Association. Mangoes are picked up directly from the farmers in the South and from collecting points in the North. Supply contracts are generally renewed on a yearly basis. The cost of transportation is paid by HPW due to the lack of mango supply. HPW pays one price per season, which is adjusted in the last two weeks of the season.¹²⁸ The main driver of the mango price set by HPW is the price setting of the competition, the cost structure of HPW and the assessment of the seasonal mango production.

ITFC produces (organic) fresh and dried mangoes with a focus on exports to the EU market. Until recently the growth of the company has been a success story, however, ITFC has had troubles to sustain revenues in recent years.¹²⁹ The company strongly engages in contract farming and supplies contractors with loans and inputs. The Organic Mango Outgrowers Association (OMOA) is a farmer based organization with over 1,200 members and was set up in 2001 in cooperation with ITFC and with support of donor organizations (Ouma et al. 2013). OMOA plays an intermediary role between ITFC and local farmers. Prices are set once the season's price for export quality fruits are determined and contracts with buyers are signed. The net sales of the export products are calculated by deducting packing, transportation and export costs from the gross sales value. From the net sales value, 25% is payed at delivery, 45% is payed after the fruit has been sold in Europe and

¹²⁶ In general, most juice manufacturers in the EU import pasteurized concentrate. So far, Blue Skies only produces fresh and unpasteurized juice. Changing buyers' and consumers' preferences could also promote fresh juice exports to the EU.

¹²⁷ Dried mangoes are significantly lighter than the whole fruit.

¹²⁸ The standards for the fruits are generally lower compared to fresh-cut processors and fresh fruit exporters; the mangoes need to be healthy and ripe with high sugar levels, but there are little demands on looks and consistency.

¹²⁹ The description of ITFC is based on information and literature before the recent difficulties emerged. The impact of the recent economic difficulties is unknown to the authors.

30% is used for loan repayment (ibid.: 233). In 2013, outgrowers of the ITFC scheme have named disease and pest attacks, low mango fruit yields, destruction of mangoes farms by bushfires, lack of cash credit to meet management costs, inadequate input supply and irrigation facilities as the key challenges in producing mangoes (Abdul-Razak et al. 2015). The introduction of the outgrower scheme in the northern parts of Ghana has increased incomes of farmers despite reoccurring conflicts (Osei 2007; Ouma et al. 2013; Abdul-Razak et al. 2015), however, technical efficiency of group farms is reported to be relatively low (Daadi et al. 2015).

There are several companies producing fruit juices in Ghana, however, most of them produce for the local and regional market. In 2015, only orange and pineapple juices were exported to the EU to a significant extent (Eurostat 2016). Few companies in Ghana offer mango and mango blend juices, including Blue Skies, Wa Fruit Juice Factory, Kokoby, Vintage Farms and Aquafresh (Frutelli). Some investments in fruit/mango juice production with a local and regional sourcing strategy have not been profitable in the past (e.g. Sun-ripe Food Processing Company). The Wa Fruit Juice Factory closed down in 2011 but reopened in 2016.

Some companies produce fruit juice by importing low-cost fruit pulp and concentrate. Juice manufacturers depend on these imports due to the seasonality of fruits, low prices of intermediate products and high prices and limited supply of local fruits and intermediate products in Ghana. Aquafresh, for example, has a production capacity of 250,000 liters per day and used to source fruit concentrates locally, however, problems in the regularity of supply and high prices changed their sourcing strategy (Sutton/Kpentey 2012: 72). Imports of fruit juices from South Africa, and in particular mango juices (e.g. Ceres), are furthermore putting the local and regional market under pressure. In 2015, Ghana imported USD 13.9 million fruit and vegetables juices (incl. intermediary products), 44% of which from South Africa, 22% from Côte d'Ivoire and 10% from Spain (UN Comtrade 2017).

4.5.3. Impact of the EPA

The EPA affects the fruit value chain albeit to a varied extent depending on the type of product. Most importantly, the EPA consolidates and grants continuous and secured DFQF market access to the EU market for all fruit products. Given Ghana's lower middle income country status, it does not qualify for EBA and hence would face GSP tariffs without the EPA. However, no immediate effects can be expected after the implementation of the EPA since the EU unilaterally granted DFQF access to its single market via MAR. The banana sector would be the most affected by the introduction of GSP tariffs due to relatively high tariffs and exports of EUR 39 million to the EU in 2015 (Table 41). The pineapple sector (2.3% tariffs) and various other fruits (up to 5.3%) would also face tariffs. The fruit juice sector, in particular exports of orange and pineapple juice, would be the most affected fruit processing sector in Ghana. GSP tariffs vary but average 14.9% on the HS4 level which would be topped by non-ad valorem duties.

Table 41: Examples of tariff effects in the fruit sector

HS	Products	EU-GH imports (EUR million, 2015)	EPA/MAR tariffs (%)	GSP tariffs (%)
080390	Bananas (fresh or dried)	39.10	0	122 €/ton resp. 12,5%
080430	Pineapple (fresh or dried)	24.24	0	2.3
080450	Mango* (fresh or dried)	18.84	0	0
081090	Various fruits	15.99	0	0 to 5.3
2009	Fruit juices (mostly orange and pineapple)	5.33	0	14.9** + non-AV-duty

Note: *Incl. guava and mangosteen; **Calculated based on average MFN tariffs according to WTO database. Most products also have a non-ad valorem (AV) duty.

Source: TARIC 2016, Eurostat 2016, ECOWAS-EPA; WTO 2016

The mango sector in Ghana would be largely unaffected by the introduction of GSP tariffs, since fresh and dried mangoes have zero GSP tariffs. The key mango export products of Ghana – fresh, fresh-cut and dried mangoes – would thus have also DFQF access to the EU market without an EPA. Only a few mango products (such as fruit bars, fruit juice and other food products) with insignificant or no export volumes would be affected by tariffs. The EPA, however, retains market access for these processed mango products and thus provides a basis for future investments into these processing activities. Further investments in these segments are however not only determined by secured DFQF market access but also by local conditions and global value chain dynamics related to buyers sourcing strategies and requirements. Investments in the fruit juice and concentrate sector, for example, are constrained by (i) relatively high mango prices; (ii) limited mango supply and focus on few varieties; (iii) high costs of processing (esp. electricity); and (iv) well established and competitive processors in major producer countries (e.g. India). In the near future, mango juice production will thus be more likely oriented towards the local and regional markets before the EPA potential in the EU market can be used.

Rules of origin (RoO) do not play an important role in the fruit and mango sector in Ghana. SPS and TBT issues are crucial for using the DFQF EU market access but even more important is GlobalG.A.P. certification and buyer specific requirements that include generally more stringent requirements than public market access standards. EPA-related development cooperation will need to play a crucial role to address specifically GlobalG.A.P.-related challenges.

The EPA yields important potential for the mango sector in Ghana but the use of this potential will largely depend on the availability of funds via the EDF and national development cooperation. The promotion of the mango sector in Ghana would be in accordance with Article 1 and 3 of the Economic and Trade Partnership for Sustainable Development Chapter of the ECOWAS-EPA in which the parties agree to establish an economic and trade partnership to achieve rapid and sustained economic growth that creates employment, reduce and eradicate poverty, raise living standards, , diversify the economy, raise real income by encouraging an improvement in the supply capacity and competitiveness of the West African region and other measures. Chapter 6 on agriculture, fisheries and food security furthermore states that the EPA Development Programme should help increase productivity, competitiveness and diversity of output in the agriculture and fisheries sector as well as facilitate the development of a processing sector and increase trade in agriculture (Article 46:2). Article 48 of the ECOWAS-EPA also lays out the principles on which food security and viable and sustainable agriculture could be promoted, including the (a) promotion of irrigation and water management programs; (b) technological progress, innovation and diversification in the agricultural sector; (c) popularizing the use of environ-

mentally friendly agricultural inputs; [...] (f) improving the storage and preservation of agricultural products; (g) reinforcing the role of the state as a supporter and adviser of private operators; (h) strengthening the agricultural sectors; (i) managing tracks and roads serving rural communities to enhance the collection and movement of agricultural products; [...]; (l) promote contract farming with partners from the EU; and (m) identify new opportunities for the development and export of products for which there is strong international demand [...]. The mango sector in Ghana would benefit from and qualify for almost all mentioned principles; however, the scarcity of development resources suggests that development cooperation should focus on key challenges and bottlenecks in the sector.

The mango sector has been supported by various development cooperation organizations and programs since the late 1990s. This has helped to improve living conditions for farmers particularly in rural and low-income regions in the north of Ghana. Fruit processors in Ghana were also able to add value and create employment in Ghana. The Ghanaian mango sector nonetheless faces serious constraints and issues that need to be tackled.

The most pressing issue is the relatively low share of fresh mango exports to the EU due to quality and market access issues, relatively high prices and buyers' price setting behavior. The export of fresh and fresh-cut mangoes yields the highest income for farmers and the cultivation focus on Keith and Kent mangoes – varieties that are among the favored mangoes of European buyers – also contributes to Ghana's endowment for fresh and fresh-cut mango exports. Measures to increase the export share of fresh mangoes could include promoting productivity and quality at the farmers' level, supporting GlobalG.A.P. certification, establishing decentralized pack houses together with the private sector, improving the supply of inputs and supporting FOBs.

The mango processing sector in Ghana would also benefit from improved conditions in mango production. The main issues of processors – apart from the general business environment such as electricity costs – include relatively high prices as well as the lack of supply of quality and certified mangoes. Moreover, the cultivation of different mango varieties could decrease the issue of oversupply during the peak season (decreasing seasonal price pressure) and extend the mango season which would prolong the operation time of processors and thus make them more competitive and increase investment and employment opportunities.

4.5.4. Conclusions

The promotion of the mango sector in Ghana is a successful example of improving the livelihood of farmers in the context of an agricultural-based export diversification strategy with strong support of donor agencies. The production of mango nonetheless faces serious constraints that could be tackled by extending development cooperation in the context of the EPA. The priority is to further develop the processing sector as well as increase the export of fresh mangoes. In order to strengthen competitiveness on EU market and attract more processors, Ghana would need to lower prices for mangoes via productivity and output increases as well as improve the quality of the produce. Important measures would include increasing technical capabilities of farmers and hence the share of certified farms and establishing decentralized pack houses in partnership with the private sector. The support of farmers' organizations could play an important role in sector promotion, since they can provide services, enhance integration of smallholders and shape policies. An increase of cultivated mango varieties would also benefit the mango sector due to a prolonged mango season. The impact of the recent mango extension and expected output increase on the mango sector, however, should be carefully monitored in order to adapt strategies of the government and donors accordingly.

The mango sector in Ghana furthermore shows the potential for functional upgrading in the context of a buyer-driven fruit value chain. The establishment of fruit processors with different mango product lines (esp. fresh-cut and dried) has greatly benefited the Ghanaian economy in terms of employment and local value-added as well as secured, expanded and differentiated demand for mangoes in Ghana. The example of Blue Skies' fruit juice also shows the potential and importance of the local market in the mango processing business. Mango processing is, however, dominated by international firms – albeit with relatively strong linkages to the local economy (e.g. through employment generation, reinvestments, educational programs). Hence, policies should specifically support local processors and address their specific challenges such as the high cost of finance in Ghana. Also linkages between international and national processors could be strengthened to ensure technology transfer and learning. This knowledge could be also used for the local and regional markets as this will be the logical starting point for some further processing steps such as fruit juice production.

The EPA secures continuous DFQF market access for Ghanaian fruit products in the EU. The direct impact of the EPA in terms of tariffs is however very limited for mangoes with the exception of some processed products such as mango juices, fruit bars and other food products. For these products secured DFQF market access could be the basis for future investments if local conditions are improved. In this regard but also more generally to use the export potential of the EPA, local competitiveness issues need to be tackled and processing activities further developed. Extended or continued development cooperation in the context of the EPA could play an important role, ideally in tandem with supporting the development of effective local institutions focusing on the fruit and processing sector. The impact of the EPA on the mango sector thus mainly depends on funds of the EU and member states made available for development cooperation. Increasing the supply of certified quality mangoes as well as the diversification of mango varieties could not only promote the livelihoods of farmers but also secure supply for the processing sector in Ghana. A development strategy for the mango and fruit sector more generally would need to specifically promote local processors by addressing their specific challenges (e.g. finance, know-how).

5. IMPLICATIONS OF THE EAC-EPA ON UGANDA AND THE EAST AFRICAN REGION

The assessment of potential effects of the implementation of the EAC-EPA on the economies in the East African region comprises four parts: Firstly, a short overview of the current economic and particular trade structure of Uganda is provided. Secondly, the results of simulations with the ÖFSE Global Trade Model with regard to macroeconomic as well as sectoral changes due to the tariff liberalization agreed in the EAC-EPA are reported and interpreted. Thirdly, the general perceptions on the opportunities and constraints related to the implementation of the EAC-EPA based on current discussions in Uganda are presented. Finally, two case studies on the most important export goods of Uganda to the EU – coffee and fish – draw conclusions on the current socio-economic challenges of the sectors and the potential effects of the EAC-EPA in a specific sector context highlighting the importance of specific sector and value chain dynamics.

5.1. Economic overview of Uganda

Since the end of the civil war in 1986, the Ugandan economy has shown a strong performance. Annual real GDP grew by more than 6.6% on average from 1986 to 2015. Despite the strong population growth of more than 3% per year, the GDP per capita increased steadily by almost 250% or by more than 3.1% per year on average over the same period. Nevertheless, Uganda is still classified as a LDC country with a GDP per capita of US Dollar 705 (WB-WDI 2016). Economic growth was been led by non-tradeable services creating growing external imbalances and inequalities between rural and urban populations (Hausmann et al. 2014; IMF 2015b). The lack of a significant structural transformation is indicated by the stagnating share of manufacturing below 10% of GDP. Within the manufacturing sector, food processing contributes almost 70% of value added (UBOS 2016). The external balance of Uganda is negative with a current account deficit of up to 10% of GDP. Most importantly, Uganda has one of the lowest levels of exports per capita worldwide (Hausmann et al. 2014). Consequently, the share of employment in the agriculture sector remains above 70% and is concentrated on self-employment and use of unpaid family members due to the lack of job opportunities in other sectors (van Waegenberge/Bargawi 2011; UBOS 2016).

In 2012/13, Uganda experienced a slowdown in economic growth due to depressed exports as well as stagnating private and government consumption. Government investment in infrastructure projects supported the return to GDP growth rates of above 5% in recent years (IMF 2017). Despite a sharp depreciation of the Ugandan Shilling in 2015, consumer price inflation and the overall macroeconomic performance has remained rather stable. The major upcoming challenge for macroeconomic management is the upcoming oil production in Uganda. While higher investments, exports earnings and government revenues from oil production will support economic growth in particular in the non-tradable sector, the potential harm for the tradable sector (known as Dutch Disease) might limit Uganda's ability to diversify its economic structure and its overall growth potential (Hausmann et al. 2014).

Table 42: Key economic indicators of Uganda

	2010	2011	2012	2013	2014	2015
Nominal GDP (current UGS, billions)	40,956	47,561	60,109	64,758	70,458	77,845
Nominal GDP (current USD, millions)	25,978	32,175	39,566	41,940	47,805	38,617
GDP per capita (current '000 UGS)	1,235	1,388	1,698	1,771	1,865	1,994
GDP per capita (current USD)	609	598	664	683	735	705
Real GDP growth (annual %)	5.7	9.4	3.8	3.6	5.2	5.1
Inflation, consumer prices (annual %)	3.8	15.1	12.9	5.0	3.1	5.5
Current account (net, % of GDP)	-8.2	-10.3	-7.3	-7.4	-8.8	-8.5
External debt stocks (% of GNI)	15.0	16.4	16.6	19.8	19.0	22.4
Foreign direct investment, net inflows (% of GDP)	2.7	4.4	5.1	4.4	3.8	3.8
Exchange rate (GHS per USD, period average)	2,178	2,523	2,505	2,587	2,600	3,241

Source: WB-WDI 2016, IMF-WEO 2017

The EU is an important trading partner for Uganda and trading volume almost doubled between 2000 and 2015 (Eurostat 2016). In 2015, the EU accounted for 16.5% of goods exports and 11.4% of goods imports. However, the largest share of Ugandan export goes to the COMESA countries and Tanzania (50.4%) and other African countries (16.9%) (UBOS 2016). On the import side, imports from Asian countries dominate with a share of more than 50% (UBOS 2016). The EU is an export destination for agricultural and food products from Uganda, most importantly green coffee beans and chilled fish fillets. With imports of medical products and machineries, the trade balance in goods with the EU is slightly positive in contrast to the overall trade deficit of Uganda.

Table 43: EU-Uganda trade (million EUR)

	2000	2005	2010	2015
Total exports to the EU	286.7	304.0	389.3	491.3
Green coffee beans	172.3	102.0	169.6	261.9
Fresh or Chilled Fish Fillets	12.7	92.9	54.8	36.6
Cocoa Beans	1.9	6.8	30.6	36.2
Tobacco	24.1	15.9	27.2	26.6
Fresh Cut Roses	10.7	22.4	22.7	25.9
Total imports from the EU	198.9	269.5	441.1	485.4
Vaccines	0.9	12.9	4.5	29.2
Medicaments	13.1	28.4	16.0	24.5
Helicopters	-	-	-	15.3
Wheat and Meslin	-	-	-	14.7
Odoriferous substances and mixtures	1.4	0.2	6.1	14.0
Worn Clothing	6.7	3.1	9.0	12.8
Ugandan trade balance with the EU	87.8	34.5	-51.8	5.8

Source: Eurostat 2016

The poverty rate (measured as people living with income below 2011 international PPP US Dollar 1.9 per day) in Uganda decreased significantly from 62.2% in 2003 to about 34.6% in 2013. However, the level of poverty and the vulnerability to poverty remains high with 43% of Ugandans classified as insecure non-poor (IMF 2017). According to the Uganda Poverty Assessment Report by the World Bank (2016), for every three Ugandans that moved out of poverty, two fell back into poverty. Poverty in Uganda is largely linked to the dependency on agriculture, as indicated by the highly level of employment in this sector and the low level of urbanization of 16% (Hausmann et al. 2014). Thus, poverty reduction from 2006 to 2013 occurred due to good weather conditions and favorable prices for agricultural products, which are linked to (volatile) global commodity price developments. The service sector as a driver of economic growth over the last three decades has only contributed marginally to poverty reduction (World Bank 2016).

The dependence on agriculture also influences the important role of women and children as unpaid family members and as self-employed labor. The share of women in paid employment is 37% and median wages of females are half of male wages. In 2011/12 more than 42% of children in rural areas were involved in some work (UBOS 2016).

In regional terms, poverty risks are concentrated mainly on the Northern and Eastern parts of Uganda which rely heavily on agriculture. In recent years, these regions have hosted refugees from neighboring countries, mainly South-Sudan. In total, almost one million refugees equivalent to two percent of the total population were hosted in Uganda in 2015 (IMF 2017).

5.2. ÖFSE Global Trade Model: Simulation results for the EAC-EPA

5.2.1. Description of methodology and calibration

The assessments of the economic effects of the three Economic Partnership Agreements on the specific regions are based on the ÖFSE Global Trade Model, a structuralist Computable General Equilibrium (CGE) model. A detailed model description is provided in section 3.1.1.

The database for the assessment are multi-country data for the year 2011 provided by GTAP (Global Trade Analysis Project, Version 9), which allows for explicit modelling of the effects on bilateral trade flows due to changes in trade policies. For this analysis, the model is calibrated for eleven countries and regions that cover all global economies and trade flows.

The regions for the EAC-EPA include the EU, Uganda (UG), Kenya (KE), Tanzania (TA) and Rwanda (RA). Data for Burundi as fifth EAC member state are not available in the database. In addition, the SADC (SC) and ECOWAS (EC) regions as African trading partners as well as the United States (US), Sub-Saharan Africa (SA), South East Asia (including China, SE) and the Rest of the World (RW) are included. For all countries/regions, 20 sectors are covered focusing on agri-food and manufacturing sectors (see Table 44 and Table 1(II) in Annex II). Table 44 also shows the applied trade price elasticities that are also derived from the GTAP database.

Based on tariff dismantling schedule of the EAC-EPA agreement (Annex II), all tariff reductions for the individual countries have been estimated as trade-weighted changes to base year tariff levels. As import patterns of the single EAC members with the EU differ, the liberalization of tariff lines scheduled in the EPA results in variations in the effective trade liberalization by trade volume in each country. In the case of EAC, 73.7% of import tariff lines against EU products are liberalized which is equivalent to 82.6% of the trade

volume in the period 2012 to 2014 (see also section 2.1.). As shown in Table 44, tariff reductions for Uganda differ by sector (column Tariff reduction in %) determined by the EAC-EPA liberalization scheme and actual trade volumes. Overall, tariff liberalization in Uganda affects 85.2% of its import volume from the EU of which a large part has already zero tariffs.

The results of the simulations refer to the difference between the continuation of the status-quo with unilateral market access granted by the EU under MAR, in other words DFQF access for all EAC-EPA countries and the large majority of products, and a situation with different tariff reductions in EAC countries (see also section 3.2.1 for details). The model simulations are based on changes in tariffs only. Possible long-run effects on export sectors in EAC-EPA countries during and after the implementation period supported by EU development cooperation efforts or higher investment triggered by the agreement are not part of the analysis. A further limitation of the simulations, as in most CGE models, is that effects of tariff reductions on products with low or none trade flows are underrepresented due to use of past trade data. The simulation results should therefore be carefully interpreted as effects of the asymmetric tariff liberalization.

Three scenarios are considered to highlight trade liberalization effects against the status quo:

- 1) “EAC-EPA”: EU and all EAC-EPA members reduce tariffs as scheduled under the regional EPA agreement
- 2) “EU & Uganda”: no regional EPA enters into force. Only the EU and Uganda liberalize as scheduled under the regional EPA agreement, trade relations remain unchanged for the other EAC members.
- 3) “GSP”: no regional EPA enters into force. The EU grants all EAC members DFQF market access, except for Kenya, which falls under GSP tariffs.

While Scenario 1 refers to an implementation of the EAC-EPA tariff liberalization schedule, Scenario 2 is an approximation for a country-specific EPA with Uganda. The third case assumes that Kenya as a lower middle income country falls into the EU’s GSP preference system while all other EAC member states remain in the EBA scheme with continued DFQF access to the EU. Thus, import tariffs by the EAC members on imports from the EU remain unchanged. The changes in EU import tariffs for Kenya are reported in Table 3(II) in Annex II.

Table 44 shows that the most important import sectors for EU goods to Uganda are chemicals, machinery and other manufacturing. These sectors make up about 98% of (weighted) tariff reductions (last column ‘Share’). Import liberalization is strong in Fishery and other Crops, but imports are rather marginal in these sectors.

Table 44: Sectoral Overview and Calibration Uganda

		Import share	Import Price Elasticity		Base year tariffs		Tariff reduction		
		(imports by UG from EU)	By sector	Weight	Tariff	Weight	In %*	Weight	Share
1	Cereals	1.8	1.79	0.033	5.5	0.100	-8	-0.2	0
2	VegFruit	0.0	0.92	0.000	20.6	0.006	-34	0.0	0
3	OthAgri	0.1	2.17	0.003	11.4	0.017	-4	0.0	0
4	OthCrops	0.3	1.63	0.004	0.2	0.001	-93	-0.2	0
5	Fishery	0.0	0.62	0.000	0.0	0.000	-100	0.0	0
6	Commodities	0.1	2.63	0.002	0.1	0.000	-58	0.0	0
7	Meat	0.1	2.11	0.002	18.9	0.017	-27	0.0	0
8	Sugar	0.0	1.35	0.000	0.0	0.000	-	0.0	0
9	Dairy	0.1	1.83	0.002	42.7	0.047	-0	0.0	0
10	Foods	1.3	1.21	0.016	21.0	0.269	-15	-0.2	0
11	BevTab	1.3	0.58	0.007	18.9	0.246	-	0.0	0
12	Textiles	0.2	1.88	0.003	19.0	0.034	-35	-0.1	0
13	Apparel	0.2	1.85	0.004	21.3	0.047	-2	0.0	0
14	Leather	0.2	2.03	0.004	19.6	0.038	-12	0.0	0
15	Petroleum	0.7	1.05	0.007	2.0	0.014	-100	-0.7	1
16	Chemicals	15.2	1.65	0.251	4.1	0.626	-94	-14.3	23
17	Machinery	18.2	2.03	0.368	3.0	0.552	-90	-16.4	27
18	Metals	0.1	1.88	0.003	15.1	0.022	-92	-0.1	0
19	OthManu	32.0	1.77	0.565	7.0	2.241	-91	-29.0	47
20	Services	28.0	0.95	0.266	0.0	0.000	-	0.0	0
	Sum	100		1.54		4.3		-85.2**	100
	Average		1.6		11.5		-43		

Notes: Import share, import price elasticity and tariffs are derived from GTAP database. Tariff reductions based on own estimations. *Tariff reduction in percent compared to current tariff rate. **Trade-weighted by trade in goods
Source: GTAP database and own calculations.

5.2.2. Analysis of the model results

In the following, macroeconomic as well as sectoral results are presented with a focus on the effects of tariff reductions in the context of the EAC-EPA for Uganda. The results on sectoral changes are derived for the first scenario only, which is the central scenario.

Macroeconomic results

The main macroeconomic results from the model simulations focus on the changes in real GDP and the contributions to these effects based on the income and the expenditure approach. Most importantly, the overwhelmingly one-sided liberalization with selected tariff reductions in the EAC-EPA countries increases imports from the EU, which drives macroeconomic and sectoral effects.

Growth of country real GDP, three scenarios

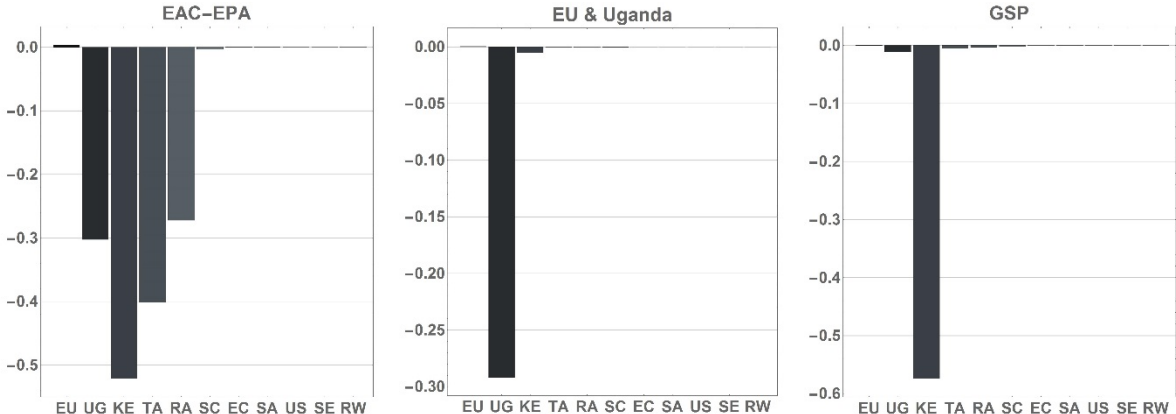
Figure 20 shows results for aggregate GDP. Each bar represents the growth rate of the country or region in response to the implemented scenario. The left panel, for example, shows model outputs for the EAC-EPA scenario ('EAC-EPA'), in which EU and all of the model's EAC countries liberalize. The leftmost bar shows a very small growth rate for the EU of 0.003%, the following bar a negative growth rate of -0.3% for Uganda. The largest contraction appears for Kenya (-0.5%), followed by Tanzania (-0.4%), Uganda and then Rwanda (-0.27%). The SADC region faces a small reduction in real GDP, of about -

0.003%. All other countries and regions show still smaller changes. For the EAC-EPA region as a whole, GDP declines by 0.42%, driven by the effects for Kenya, the dominant economy in the region.

The effects in Uganda's GDP growth in the 'EU & Uganda' scenario are very similar to the first scenario. The first two bars represent real growth of GDP in EU and Uganda of 0.0004% and -0.29%. Thus, the aggregate small gain in the first scenario for the EU depends on liberalization across the EPA region, but, in sharp contrast, Uganda's GDP contraction largely depends on its own liberalization of EU imports.

In the first two scenarios, Uganda's real GDP shrinks because liberalization substitutes imports from the EU for domestic economic activity: reduced prices of EU goods lead to an increase in imports. Lower tariffs decrease firm's input costs, and thus lead to a ceteris paribus increase in real incomes of households. However, if factor demand decreases as well, household incomes fall. In these results, the latter effect clearly dominates the former, and consumption demand falls. These linkages are emphasized in Figure 21 and Figure 22.

Figure 20: Growth of country real GDP (at factor costs) in three scenarios



Notes: Scales on the y-axis differ for the single scenarios.
Source: CGE calculations

The third scenario ('GSP') simulates the outcome for the case that the EPA is not implemented and the EAC countries face trade preferences by the EU according to their income level. Among the EAC countries, this primarily affects Kenya as a lower middle income country, whose exports to the EU would be charged with GSP tariffs.¹³⁰ As this is burdensome for the Kenyan export performance, the country's GDP shrinks by -0.57%. Thus, the aggregate GDP effect in Kenya is almost equivalent in the EPA and in the 'GSP' scenario. However – as shown in section 4.2.2. for the case of Ghana – the underlying causes for this outcome differ fundamentally. While negative EPA effects are largely caused by imports, GSP outcomes are driven by changes on the export side. Taking into account the comprehensive effects of EPAs including enhanced development cooperation, the GSP scenario should not be interpreted as the polar opposite of the EPA case.

¹³⁰ It would be possible to include other EAC countries such as Rwanda and Tanzania in the GSP scenario, given that these countries have the potential to become lower middle income countries in the coming years. The effects of an implementation of GSP tariffs are shown here only for the example of Kenya.

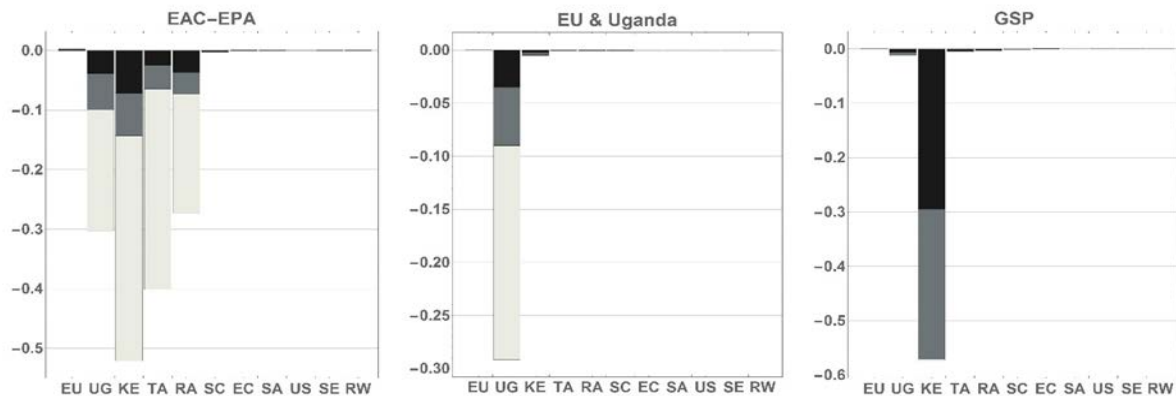
Growth contributions of incomes and expenditures

Figure 21 and 22 contain the same (and more) information as Figure 20. First, the total bar heights in Figure 20, 21 and 22 are identical, i.e. -0.3% for Uganda in the first scenario. GDP can be decomposed either into incomes – private and public – or expenditures – consumption, public expenditures, investment, and net exports.

Thus, Figure 21 represents the income decomposition, where private incomes are the sum of total wages and profits, and public income are indirect taxes and tariffs. In the EAC countries, all components of income fall. For example, consider Uganda. The black portion of the bar is the contribution of the reduction in wages (-0.04%) to the fall in GDP, the gray portion of the bar is the contribution of the reduction in profits (-0.06%) to the fall in GDP, and the light gray portion of the bar is the contribution of tariff removal (-0.20%) to the fall in GDP. The sum across these three amounts to the total of -0.3%.

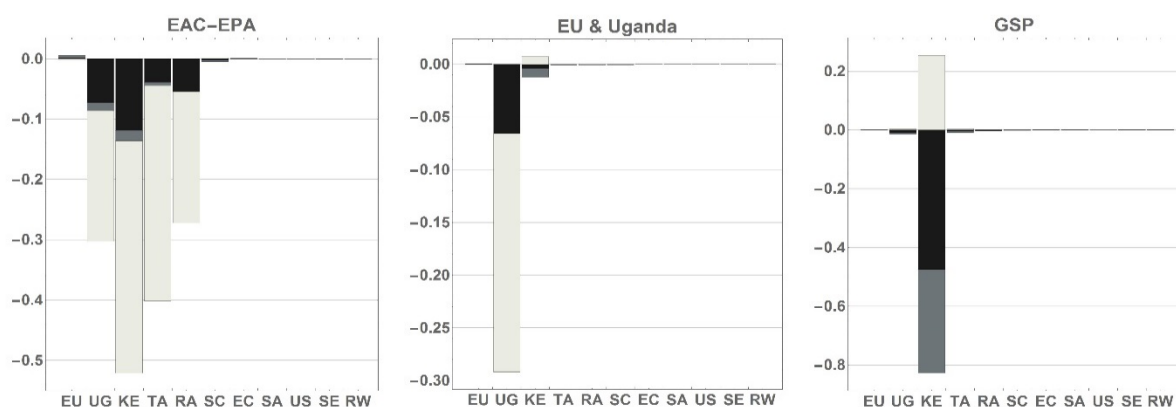
Analogously, Figure 22 shows the growth contributions of the endogenous components of demand: black represents consumption (-0.07%), dark gray exports (-0.01%, which is hardly visible in the figure) and light gray imports (-0.22%). Again, the sum is -0.3%.

Figure 21: Growth of country real GDP in three scenarios (income side)



Notes: Decomposition of growth from the income side. Black represents growth contribution of total wages, dark gray profits, and light gray indirect taxes and tariffs.
Source: CGE calculations

Figure 22: Growth of country real GDP in three scenarios (expenditure side)



Notes: Decomposition from the expenditure side. Black represents growth contribution of real consumption, dark gray real exports, and light gray real imports.
Source: CGE calculations

These decompositions highlight the above mentioned causal linkage for the scenarios 1 and 2. Firm costs fall as tariffs are reduced, but the resulting surge in imports reduces factor demand as imports substitute for domestic value added. Further, the price reductions are in total too insignificant to affect export competitiveness. Thus, net exports fall, and the fall in value added is reflected in a contraction in household income and therefore consumption. The driving factor in Uganda is tariff reduction on the income side, and the import surge on the expenditure side. The GSP scenario shows a different pattern. On the income side, the aggregate effects are driven by changes in wages and profits only. On the expenditure side, negative consumption and export effects dominate.

Effects on trade flows

As highlighted in Figure 22, changes in imports largely contribute to the changes in real GDP in the EAC-EPA countries, mainly driven by higher imports from the EU. As Table 45 shows, imports from the EU to Uganda increase by more than 5.35%, while exports to the EU from Uganda change slightly (0.01%) as expected from one-sided liberalization. Most importantly, within the EAC-EPA intra-region trade declines due to trade diversion effects. Thus, Uganda's exports and imports to and from other EAC-EPA countries decrease by 0.51% and 0.44%, respectively. In total this results in a loss in aggregate exports (-0.04%), while aggregate imports increase by 0.69%.¹³¹

Table 45: Changes in inter-regional trade flows

	<i>EU</i>	<i>Uganda</i>	<i>Other EAC-EPA countries</i>	<i>All other regions</i>	TOTAL
<i>EU</i>	0.01%	5.35%	6.55%	0.00%	0.01%
<i>Uganda</i>	0.01%		-0.51%	0.000%	-0.04%
<i>other EAC-EPA countries</i>	0.01%	-0.44%	-0.52%	0.00%	-0.04%
<i>All other regions</i>	0.00%	-0.42%	-0.49%	0.00%	0.00%
TOTAL	0.01%	0.69%	0.77%	0.75%	

Notes: Exporting countries/regions are in the first column and importing countries/regions in the following columns. Thus, exports from the EU to Uganda increase by 5.35% or respectively imports by Uganda from the EU increase by 5.35%.
Source: CGE calculations

Changes in macro balances

In contrast to standard CGE models, the ÖFSE Global Trade Model includes changes in important macroeconomic balances, namely the change in net exports (foreign balance), the change in the private balance and the change in the public balance, all relative to GDP.

Figure 23 details aggregate country results from a different perspective. Model equilibrium in the market for goods and services occurs when demand is equal to supply. An equivalent way of saying the same thing is that all demand injections equal leakages, or, more specifically, that the sum of the differences between injections and leakages of private, public and foreign 'institutional sector' is equal to zero.

In other words, both before and after the application of the liberalization scenario, the sum of net exports or the *foreign balance* (E-M, black), the *private balance* (I-S, dark gray) and the *public balance* (G-T, light gray) is zero. Note that the public balance is the negative of

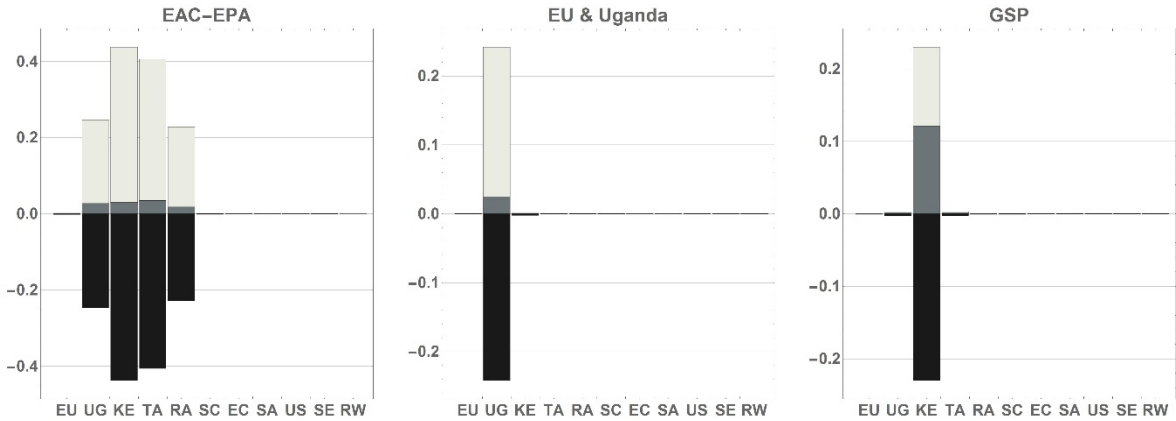
¹³¹ Please note that Figure 22 reports *contributions* to growth in real GDP, while Table 45 shows changes in real trade flows.

the public deficit. Following convention, the balances are defined as difference between injection and leakage, thus determining a *net borrowing flow* of the institutional sector.¹³² Figure 23 shows the *changes* in these balances, normalized by pre- and post-liberalization GDP. Since the pre- and post-liberalization sum of the balances is zero, the sum of these changes will be zero as well.

As an example, consider Uganda in the middle panel, which shows simulation results for scenario 2. Following liberalization, Uganda’s net exports relative to GDP change by 0.24%. Put differently, the foreign deficit rises and thus foreign net lending increases. This buildup in external liabilities finances increase net borrowing by private and public actors. The dark gray private balance increases by 0.03% relative to GDP, reflecting the *fall in private saving*, following the fall in income and given the exogenous flow of investment. Similarly, the public balance deteriorates by 0.22% of GDP, following the decrease in revenue instruments as well as economic activity, and given the exogenous flow of public expenditures.

In summary, across Figures 20 to 23, the results clearly suggest that unilateral effective liberalization in EAC-EPA countries vis-à-vis the EU leads to import surges. The increased imports are not balanced by increased demand either from consumption or exports, so that aggregate value added falls. Further, unilateral liberalization leads to a worsening of the public balance, threatening already limited fiscal capacities.

Figure 23: Change in sectoral balances relative to GDP, three scenarios



Notes: Black represents the change in net exports relative to GDP, dark gray the change in private balance relative to GDP, and light gray the public balance relative to GDP. Each balance is defined as a net borrowing flow, i.e. the difference between injections and leakages.

Source: CGE calculations

In summary, across Figure 20 to Figure 23, the results clearly suggest that unilateral effective liberalization in ECOWAS-EPA countries vis-à-vis the EU leads to import surges. The increased imports are not balanced by increased demand either from consumption or exports, so that aggregate value added falls. Further, unilateral liberalization leads to a worsening of the public balance, threatening already limited fiscal capacities.

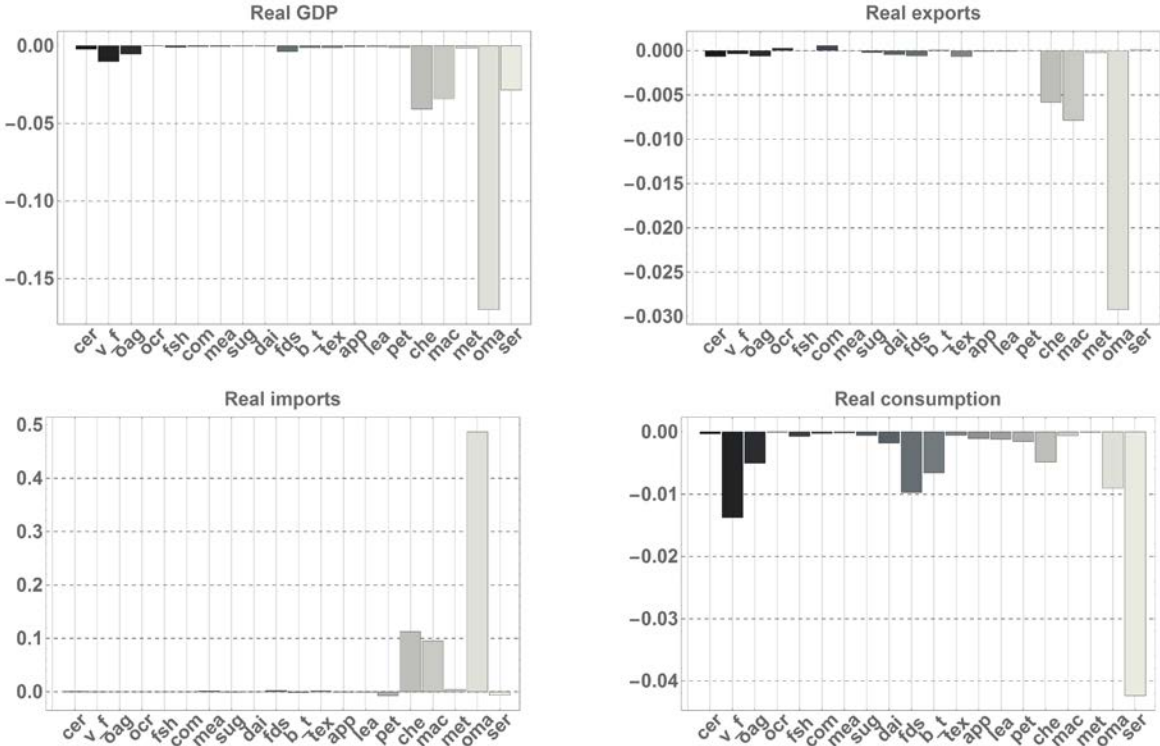
¹³² In the case of a trade deficit, the foreign sector has negative net borrowing, which is equivalent to net lending from the rest of the world to the country under consideration. Note further that in the foreign balance both expenditure components are endogenous, but that in private and public balance only leakages are endogenous – public expenditure G and firm investment I are held constant.

5.2.3. Sectoral results

Figure 24 and Figure 25 show sectoral details for Uganda resulting from the first scenario, which implements the regional EPA for all EAC countries. In all four panels of Figure 24, each bar represents the weighted growth rate of sectoral activity, so that the sum across all sectoral bars represents the aggregate growth rate. Consider the top left panel, showing real GDP. The sum across bars is equal to the aggregate real GDP growth rate shown in Figures 20 to 22. Reporting weighted data highlights the relative importance of large sectors, and does not lead to misinterpretation of large sectoral activity growth rates.

As can be discerned from the panel, changes in chemicals (che), machinery (mac), other manufacturing (oma) and services (ser) dominate. The reasons have to be seen in their relative size, the degree of their import dependence, and their high importance in overall tariff reduction: chemicals, machinery and other manufacturing make up about 98% of (weighted) tariff reductions. Services change due to multiplier effects. The other panels corroborate this result, as exports and consumption fall and imports rise. Again, sectoral contributions add up to the change of aggregate variables. Thus, the sum of the single bars amounts to the aggregate growth rates of real exports (-0.05%), real imports (0.69%) (see also Table 45) and real consumption (-0.10%). Only some already important export sectors of Uganda, e.g. other crops (ocr) and commodities (com), see small increases in exports to the EU. The real GDP changes in these sectors are nevertheless negative.

Figure 24: Sectoral contributions to growth in Uganda in scenario 1

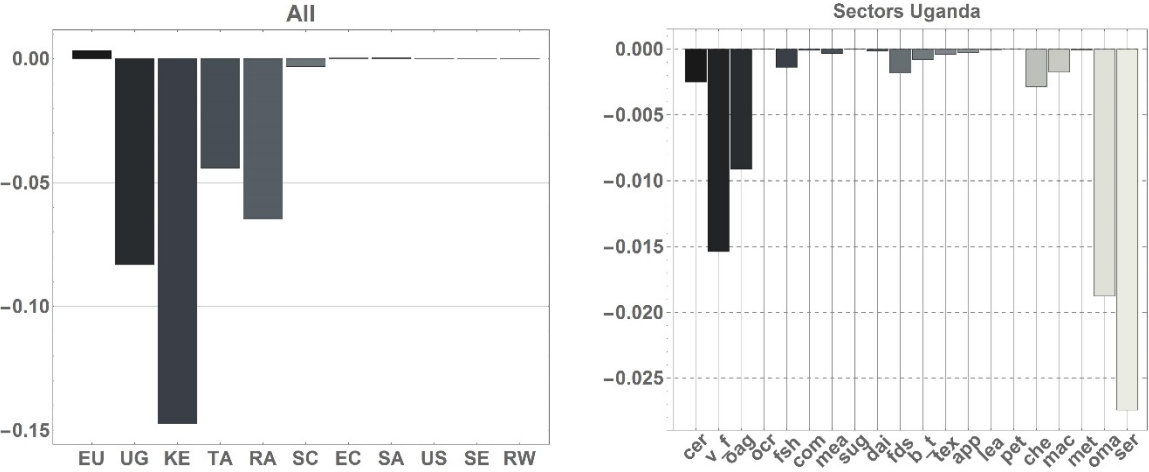


Notes: Top left: Each bar represents the sectoral contribution to growth of real GDP. The sum across sectors amounts to -0.30%, see the bar for Uganda in Figure 20. Top right: Each bar represents the sectoral contribution to growth of real exports. The sum across sectors is the aggregate growth rate of real exports (-0.05%). Bottom left: Sectoral contributions to growth of real imports; aggregate 0.69%. Bottom right: Sectoral contributions to growth of real consumption (-0.10%). Source: CGE calculations

Figure 25 complements the picture further with details on employment results. The left panel shows aggregate growth rates of employment in all countries under scenario 1. The right panel shows the sectoral contributions in Uganda that correspond to the country's aggregate bar in the left panel. Due to high labor intensity in select agricultural sectors, decreases in activity imply higher contributions to aggregate employment growth than the top left of Figure 24 would suggest. However, here as well sector other manufacturing (oma) and services (ser) are important.

Although the aggregate losses are comparatively small, the percentage change of -0.13% would be equivalent to 85,000 jobs in the EAC-EPA region as a whole and up to 13,000 jobs for Uganda (own estimates based on ILO Statistics).¹³³ As indicated above, the major employment losses occur in the agricultural sector, with 9,000 jobs in Uganda and 68,000 in the whole EAC-region given the high labor intensity in this sector.

Figure 25: Employment growth in Uganda in scenario 1



Notes: Left panel shows aggregate employment growth in all regions in scenario 1. Right panel shows sectoral contributions to aggregate employment growth in Uganda in scenario 1. The sum across sectors at right is equal to Uganda's bar in the left panel.
Source: CGE calculations

5.2.4. Sensitivity analysis

Figure 26 presents sensitivity analysis. The purpose of sensitivity analysis is to assess to what degree model results depend on parameter values, which, often, are surrounded by significant uncertainty. Here, we focus on import price elasticities: the elasticity that describes the percentage change in real imports in response to a percentage change in relative prices. Traditionally, but also in our model, these elasticities are exogenous inputs into the model and have a significant effect on the magnitude of the estimated effects. The elasticities applied in our model (as discussed above) are from the GTAP database, and are, following standard practice, uniform across countries but vary across sectors.

These so-called "Armington elasticities" are often viewed critically on the grounds that they are unreasonably large. The unweighted average of the GTAP elasticities in our aggregation is 3.2, with elasticities around 4 in sectors such as *leather* and *machinery*. For our

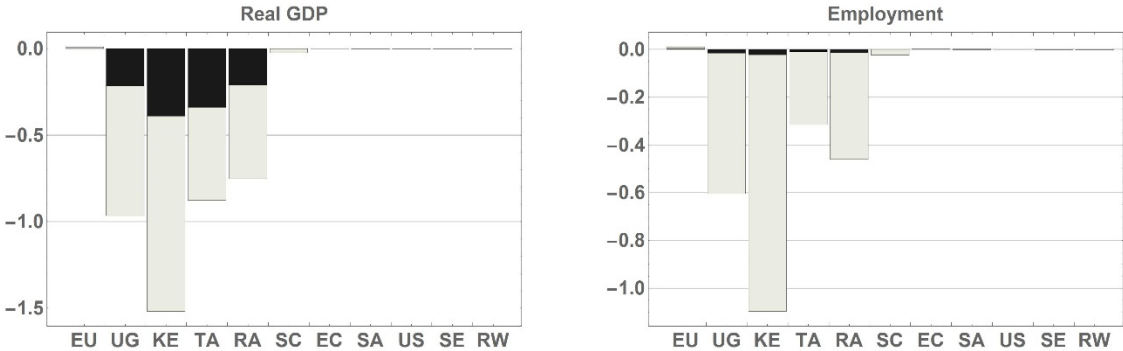
¹³³ Estimates based on annual average employment data by economic activity between 2011 and 2015 and own sectoral simulation results. Since employment statistics in Africa are notoriously lacking in quality, and typically cover formal employment in urban areas only, these numbers must be interpreted carefully.

baseline calibration, which is used to produce model results in the three scenarios previously discussed, we therefore feed only half the GTAP value into the model, for an unweighted elasticity average of 1.6. In the case of Uganda, the average elasticity vis-à-vis the EU, weighted by import shares, then amounts to 1.54.

Now, to conduct sensitivity analysis, we, first, further reduce the average elasticity values, and, second, increase them. Figure 26 presents these results for scenario 1. The low elasticities correspond to 1/3 of GTAP values, the high elasticities to 5/3 of GTAP values. The black bar shows the growth rate of real GDP with low elasticities, and the gray bar shows the *additional change* with high elasticities. Thus, for Uganda, the left panel records a real GDP contraction of -0.22% with low elasticities, and -0.97% with high elasticities. The right panel illustrates the concomitant growth rate of real employment.

The ranges represented in Figure 26 are indicative of the uncertainty surrounding estimates of the effect of liberalization. As shown for the case of Uganda, the EPA outcomes depend crucially on trade effects in specific sectors particularly in the sectors chemistry (che), machinery (mac) and other manufacturing (oma). Thus, elasticities are important factors to determine trade responses following changes in tariffs and subsequently overall effects.

Figure 26: Sensitivity analysis



Note: The left chart shows model results in scenario 1 for different trade price elasticities. The black (gray) bar corresponds to 1/3 (5/3) of GTAP trade price elasticities. The unweighted average of trade price elasticities across sectors is 1.08 (5.4); for our baseline scenario with half the value of GTAP elasticities the unweighted average is 1.60. The size of the gray bar is inclusive of the black. The right panel shows the corresponding results for aggregate employment. Source: CGE calculations

5.2.5. Comparison and Conclusions

Our simulations have shown that unilateral liberalization in the countries of EAC and in Uganda in particular, will have negative though rather small effects on GDP and employment, both at an aggregate and sector level. This is in contrast to results of standard models applied to EPA trade liberalization scenarios. Generally, model results differ due to type of models (CGE, Partial Equilibrium), model causalities, datasets, time frames and liberalization scenarios and should therefore be compared with caution.

The assessment on the economic effects of the EAC-EPA by the EC (2017) reports positive effects for GDP (+0.3%) and welfare (+0.2%) for the EAC region based on a dynamic CGE model. The results are driven on the one hand by a positive export performance of Kenya to the EU, as the baseline scenario assumes that Kenya is included in the GSP regime (EC 2017: 32). Thus, the results indicate effects due to EPA liberalization relative to this GSP scenario. As the EPA lowers tariffs for Kenyan exports to the EU, trade flows increase by 11.9%, while all other EAC countries remain in EBA and see no changes in

market access to the EU and therefore small or even negative changes in exports to the EU. On the other hand, incoming trade from the EU to the EAC region would increase by more than 23%. In standard CGE models, this is a source for positive effects of trade liberalization as “gains in GDP are mostly deriving from cheaper imports boosting investments and consumption” (EC 2017: 40). Partial equilibrium models, applied for instance by Fontagne et al. (2011) and Muluvi et al. (2016), see negative impacts on public revenues of EAC member states due to the EAC-EPA, but increased consumer welfare leads to a net-gain in total welfare terms. Partial equilibrium models are however restricted in their analysis of economy-wide effects compared to CGE models.

Based on our approach, the asymmetric liberalization as scheduled in the EAC-EPA has negative macroeconomic and sectoral effects compared to the status-quo. Negative effects on the existing industrial structure of the country are particularly noteworthy. In addition, the current account and the budget deficit will deteriorate. While these results primarily indicate the effects of tariff liberalization under the EAC-EPA, it is clear that in order to reap any benefits from the agreement these economies will need to promote the competitiveness of their export sectors and engage in a longer-term strategy of upgrading their economic and particularly industrial structure above and beyond the EPA implementation period. The management of the implementation process during the 25 year transition period will thus be pivotal in maximizing positive effects.

5.3. Implementation of the EAC-EPA in Uganda: Opportunities and Constraints

The negotiations between the EU and the EAC (Burundi, Kenya, Rwanda, Tanzania, Uganda) on the EPA were finalized in October 2014. Variations in the negotiation structure of the EAC-EPA group since 2002 are an example for the multi-regional dynamics within the ACP countries. Despite an initial initiative by Kenya, Tanzania and Uganda to start EPA negotiations as an EAC block in 2002, the countries separated into different EPA negotiation rounds. Kenya and Uganda joined the ESA group, while Tanzania started negotiations within the SADC group. It was shortly before the first EPA deadline in 2007, that the revived five-country EAC group formed a separate EPA block (Lorenz 2012).¹³⁴

The finalized EPA agreement was signed by Kenya and Rwanda individually and ratified by Kenya in September 2016 to underline its commitment to the EPA and to avoid losing DFQF market access in the EU.¹³⁵ Opposition to the agreement is particularly strong in Tanzania (from the government and private actors) but also by some actors and particularly parts of the civil society in Uganda. There is a loose consensus among the four remaining EAC members to ratify the agreement as a group only.

This section builds on section 2 of the report which analyzed the relevant provisions of the EAC-EPA and potential challenges for member states. Thus, in this section, firstly the general perceptions on the negotiation process and the expectations associated with the EAC-EPA in Uganda are discussed. This also includes an overview of the current discussion among the EAC member states and the role of EAC institutions, which is related to the impact of the EPA on regional integration. Secondly, important constraints in terms of capacities and the role of development cooperation are addressed in order to use the potential of the EPA.

¹³⁴ In 2005, a customs union among the EAC countries was established, which was followed by the ratification of a common market protocol in 2010 and a protocol on a monetary union in 2013 (EC 2015).

¹³⁵ Kenya did not sign an interim EPA with the EU. Prior to the ratification of Kenya on 20th September 2016, the EC decided to remove Kenya from a list of ACP countries that are part of a bridging solution for continued DFQF market access to the EU (EC No 1528/2007, Annex 1), if the EPA is not ratified by Kenya before 1st October 2016 (EC 2016d).

5.3.1. General perception of the EAC-EPA in Uganda

The upcoming process of signing and ratifying the EAC-EPA in Uganda and the other EAC member states has triggered further discussion on the opportunities and challenges of the agreement within Uganda and the EAC region. This discourse includes government agencies, business associations, civil society groups and the media.

Various stakeholders in Uganda have been included in the negotiation process in the form of consultations and information seminars.¹³⁶ Influence on the negotiation results from non-governmental stakeholders is however widely perceived to be limited, as the positions of Uganda and the EAC countries were driven by governments, particularly through their Ministries of Trade and the Presidents' Offices, and as EPA negotiations were done on a regional ambassadorial/senior official level (Lorenz 2012).¹³⁷

On the supporter side, the EAC-EPA is broadly supported by Ugandan government officials of ministries involved in the negotiations (Ministry of Trade, Industry and Cooperative, Ministry of Finance, Planning and Economic Development, Ministry for East African Community Affairs). The opportunity provided by a guaranteed DFQF market access to the EU market is commonly highlighted. However, the need for further investment in infrastructure, power supply and skill development is emphasized as a necessary condition to benefit from the agreements' provisions. Thus, continued support through development cooperation by the EU is seen as a crucial element within the EAC-EPA to make the agreements effective for Uganda.

The EAC-EPA is also perceived by most government actors as an agreement with some degree of flexibility. Firstly, various elements of the agreement are part of a review process after five years¹³⁸ from the date of its entry into force which provides the ability to counteract potential negative or missing effects of the agreement. Secondly, the negotiation results with regard to the rendez-vous clause (EAC-EPA Article 3) mirror the current status of the EAC integration process. For instance, the EPA does not include a chapter on sustainable development as this is not yet part of EAC integration either. This subject and others, such as trade in services and investment and property rights, should however be negotiated within five years upon entry into force of the agreement independent of the EAC internal progress on these issues.¹³⁹ Thirdly, a framework for EPA-related funds is included in the agreement (EAC-EPA Article 102). The implementation and the specific application of funds to support the EPA by the EU should be specified according to the potentially changing needs of the EAC member states.

The tariff liberalization on the import side and potential limitations of policy space through the EAC-EPA are generally not perceived as a major concern by Ugandan government representatives due to the liberal approach to trade and other economic policies. As approximately two thirds of the trade value from the EU is already imported without tariffs (see also chapter 2), the combination of long-term transition periods (25 years) and exclusion of sensitive products is seen as easing pressure from import competition for Uganda. Also the upcoming loss of public revenue due to gradual tariff liberalization appears not as a serious issue in the current financial planning of the government.

On the opponent side, critique on the content and potential effects of the EAC-EPA has been expressed by NGOs such as SEATINI and business associations of companies from

¹³⁶ Participation in regional EPA events was often facilitated by financial support from EU institutions or EU member states.

¹³⁷ Uganda has five state institutions associated with the Ministry of Trade, Industry and Cooperative and 21 business associations. Kuteesa and Maweje (2016) concluded that these associations have limited capacity to gather and process information for policy advocacy in general.

¹³⁸ EAC-EPA Article 142 and Protocol 1 Article 42 on RoR.

¹³⁹ The rendez-vous clause sets a 5 year time period to start negotiations on the specified subjects (EAC-EPA Article 3).

manufacturing and industrial sectors (Chamber of Industry and Commerce, Uganda Manufacturers Association) which are affected by tariff liberalization on the domestic and regional market. The latter see domestic manufacturing companies not ready for increased competition with products of EU companies. It is emphasized that a wide range of goods is produced in the EU including light manufacturing goods that would directly compete with local products or limit the potential upgrading of local companies. Furthermore, the associations see high SPS and TBT standards in the EU and the associated high costs for Ugandan producers, as constraints for exports to the EU. In general, these associations did not see a clear benefit from the EAC-EPA for the EAC member states.

In a recent report, the NGO SEATINI that followed the entire negotiation process, listed various problematic points associated with the EAC-EPA (SEATINI 2017). These include the extensive liberalization which potentially restrains development of productive capacities for manufactured goods or pharmaceuticals and would be in contrast to the national development policies in Uganda. In addition, the conditions for applications of bilateral and multilateral safeguards, the inclusion of the standstill and MFN clause, the constraints on export taxes and the neglected impact of the Brexit for the agreement are criticized by the NGO among other points. Further, the limited capacities at the public and private side to implement the EPA and to use the potential of the EPA are pointed out (see below).

Discussions in Uganda have been highly influenced by debates on the regional level. Kenya as the largest economy of the EAC region and non-LDC country has a vital interest in the continuation of the DFQF market access to the EU market, even though the EAC-EPA has been controversially debated within Kenya as well (see for instance European Parliament 2014). Tanzania is still reluctant to sign and ratify the EPA and has raised a number of issues including the implications of the EPA on EAC's development in general and industrialization in particular. Rwanda already signed and tends to ratify the agreement and Burundi and Uganda tend to sign the agreement. For Burundi, consent to the agreement also has a recent political dimension due to EU sanctions raised in the aftermath of violent conflicts around the presidential elections in 2015.¹⁴⁰

The role of EAC institutions in the negotiations was coordination, facilitation and consultation among and for the member states. Thus, common concerns and propositions, for instance regarding disciplines on subsidies in the EU agricultural sectors and the possibility to keep flexibility to levy export taxes, have been put forward on a regional level (European Parliament 2014). The East African Legislative Assembly (EALA) has also published a resolution on the EPA, expressing several concerns including a list of products at risk due to the EPA (EALA 2012). Debates on subsidies in the agricultural sector in the EU have for instance influenced articles on the prohibition of export subsidies for all agricultural goods exported from the EU to EAC Partner States for at least 48 months, and the emphasis on transparency in the area of agricultural support (EAC-EPA Article 68). Nevertheless, the single EAC members had different levels of concern on these issues. For instance, Uganda with its liberal policy approach was less concerned with this discussion, including the debate on the MFN-clause.

The coordination efforts of EAC institutions led to the commitment to sign the EAC-EPA as a bloc. However, with the ratification of Kenya due to its need to secure DFQF access to the EU market and the issues raised by Tanzania, the EAC Head of States are currently

¹⁴⁰ EU sanctions consist of a travel ban and asset freeze against four persons and have been renewed until October 2017 (Council of the European Union, 2016).

in a debate on further procedures. An uncoordinated ratification process might have a negative impact on further regional integration in the EAC region.¹⁴¹

5.3.2. Potential constraints and funding in the EPA-implementation process in Uganda

Given the complexity of the EPAs, negotiating as well as implementing the agreement put significant demands on institutional capacities (see also Section 3.3.2. on Mozambique in which the capacity and capability constraints for EPA implementation are discussed in more detail). Particularly the need for further investment in infrastructure, power supply and skill development is widely emphasized as a necessary condition to benefit from the agreements' provisions on the export side. Also capacities to deal with specific EPA-related rules such as SPS and TBT measures remain limited.

Critiques from NGO, business association and sector organizations have also pointed out the limited capacities of the governmental and private sector for the implementation of the EPA. On the one hand, budgetary support for the core state institutions (Ministry of Trade, Industry and Cooperative and associated institutions) to implement the EPA is limited. On the other hand, the private sector is currently not involved in or updated on EPA related processes. Thus, in implementation processes the involvement of actors from the private sector has to be renewed. In this regard, various stakeholders in Uganda have pointed to the implementation challenges in the CARIFORUM-EPA (see also Singh et al. 2013).

On these capacity issues, continued support through development cooperation by the EU is seen as a crucial element within the EAC-EPA to make the agreement effective for Uganda. In this regard, the EAC-EPA agreement includes in Appendix III (a) and (b) a EAC-EPA Development Matrix with priority infrastructure projects to address supply side constraints and regional and national development strategies with corresponding baseline benchmarks, indicators and targets. These should be reviewed every five years (EAC-EPA Article 75 (3)). The listed projects and strategies are however not part of the EPA agreement, but the EU indicates that the projects should be financed through the EDF and Aid for Trade (AfT) (EC 2015). Interview partners see the project and strategy list as remnants of the comprehensive discussions on development cooperation and funding. Thus, sector specific needs for improved infrastructure might well go beyond the listed projects. A specific EPA fund is envisaged in the agreement (Article 102) and should be established according to the future needs of the EAC member states. Thus, the EPA member states need the capacity identify their specific needs before an EPA fund can be installed.

5.4. CASE STUDY IV: Effects of the EAC-EPA on the coffee sector in Uganda

The sectorial case study of the coffee sector in Uganda shows the importance of specific sector and value chain dynamics as well as local conditions in being able (or not) to use market access potentials on the export side. To understand the development implications of the EPAs for ACP coffee exporting countries, it is crucial to analyze the regulatory changes the EPAs will bring. But the analysis of regulatory changes has to be done in combination with assessing competitive business dynamics within the coffee GVC and particularly the sourcing and investment strategies of lead firms to understand potentials and limitations for export responses. But also local conditions clearly have a large impact on the possibilities to use the export potential of the EPAs. Specifically, in SSA countries local productive and institutional capacities and capabilities on the firm side as well as the government side are often very restricted which limits entrepreneurial and policy response

¹⁴¹ Since 2016, South Sudan is member of the EAC but not part of the EAC-EAP.

to the EPAs. This one’s more highlights the importance of development cooperation to support sector-specific policies and projects at the national and regional level.

From a development perspective, it is not only important to improve conditions and outcomes in production for agricultural sectors but also to assess and support opportunities for upgrading to higher value added activities that often involve processing. Coffee is the most widely traded cash crop and the essential export good for various countries, mainly in Sub-Saharan Africa. The coffee value chain is characterized by a division between producing, processing and consuming countries with producers in low- and middle-income countries and processors and consumers in high income countries. The governance structure in coffee value chains can be categorized as ‘trader- and roaster-driven” (Ponte 2002; Daviron/Ponte 2005) as trade with unprocessed coffee beans and downstream processing is largely concentrated upon a limited number of international traders and roasters. This has largely limited upgrading opportunities into processing in producer countries.

The case study of the Ugandan coffee sector highlights the potential impact of the EPA in the context of current challenges in the coffee sector. This section starts with an overview of the global coffee value chain and includes the role of major international actors and the impact of variations in global coffee prices. Thereafter, we describe the coffee sector in Uganda by focusing on the status and key challenges of coffee farmers and other local actors in the national coffee marketing system. Based on this analysis, we discuss the potential impact of the EAC-EPA on the further development of the sector and identify areas for development cooperation support within the framework of the EAC-EPA. We conclude by examining the development implications of the EPA and potential upgrading opportunities in the coffee sector in Uganda.

5.4.1. The Global Coffee Value Chain

The global production of coffee increased from 93 million bags of green coffee (à 60 kg) in 1990 to more than 151 million bags in 2016. Traditionally, Brazil was the major producer country with 55 million bags in 2016 and a share in total production of more than 35%. Since the late 1980s, Vietnam has emerged as the second largest producer (25.5 million bags), specialized in Robusta coffee. Consequently, the share of Robusta compared to Arabica coffees¹⁴² in total production increased from 28% in 1990 to almost 40% in 2016 (ICO Data). Producing countries in Sub-Saharan Africa have a share of 11% in total production, with Ethiopia and Uganda being the major coffee producers in the region.

Table 46: Global Coffee Production by Region (2016)

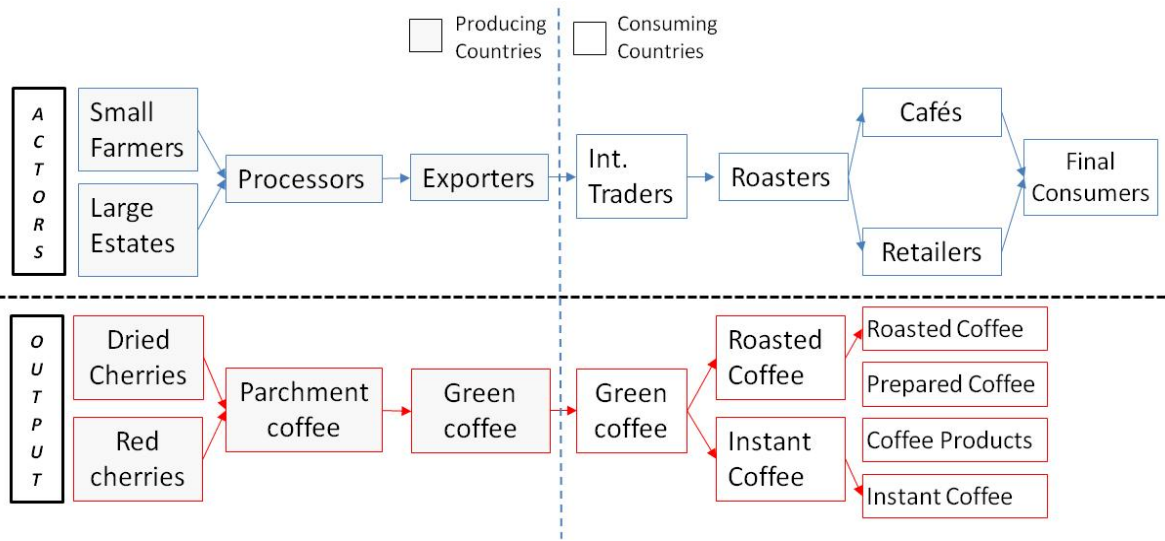
Region	Africa	Asia	Central America	South America
Production (in million 60kg bags)	16.4	43.1	17.7	74.4
Share in global production	11%	28%	12%	49%
Top 3 countries	Ethiopia	Vietnam	Honduras	Brazil
	Uganda	Indonesia	Guatemala	Colombia
	Côte d’Ivoire	India	Mexico	Peru

Source: ICO Data

¹⁴² Generally, coffee is a tropical plant with specific requirements on environmental conditions for commercial cultivation. For instance, a dry period is necessary to stimulate flowering and annual rainfall should not exceed 3,000 mm, which make coffee potentially highly vulnerable with regard to climate change (ICO 2014). Arabica is typically grown in highland areas with ideal temperatures of 15°C-25°C and has a milder taste. Robusta can also be grown at sea level and in temperature up to 30°C and is widely used in instant coffee and in stronger roasts (Fairtrade Foundation 2012).

The global coffee value chain is to a large degree spatially divided in producers in the Global South and processors and customers in the Global North. The main nodes along the global coffee chain include actors in producer countries such as smallholders, commercial farmers, upstream processors and exporters. The transactions among these actors commonly are facilitated by local traders and agents. After harvesting (dried or wet) coffee cherries are processed (upstream processing) to raw or 'green' coffee beans in producer countries. The majority of these green beans (around 70%) are exported. This trade flow runs through the hands of international traders, before downstream processing by roasters and final sale via various distribution channels takes place in consuming countries (Figure 27). Some international traders and roasters are vertically integrated into upstream activities and own coffee plantations or cooperate directly with coffee farmers.

Figure 27: Global Coffee Commodity Chain



Source: Authors' elaboration based on Ponte 2002 and Breger Bush 2012

The distribution of value along the coffee value chain is biased towards processors of high-value products, such as roasted and instant coffee (Daviron/Ponte 2005). As shown in Table 47, the dominant exporters of largely unprocessed green coffee are mainly lower and middle income countries. On the import side, the EU is traditionally the largest coffee processor and consumer, absorbing more than two thirds of total green coffee exports in 2015 (ICO data).¹⁴³ Thus, roasted coffee is to a large degree traded by and among high income European and North American countries. In the instant coffee sector, producer countries such as Brazil, Indonesia, India, Colombia and Vietnam are increasingly participating in processing value chains.¹⁴⁴

Between 1963 and 1989 the governance structure of the global coffee value chain was determined by the International Coffee Agreement (ICA), by which the majority of producing and consuming countries jointly controlled global coffee trade and prices. With the end of the ICA, coffee producing countries have liberalized their local coffee marketing systems and downstream actors (retailers, roasters, international traders) emerged as dominant players in coffee trade and processing (Gilbert 1996). Consequently, the coffee chain after

¹⁴³ Besides the EU, the USA and Japan are major coffee consumers. Furthermore, coffee consumption in exporting countries (particularly Brazil and Ethiopia) and non-traditional markets (China, Saudi-Arabia, Sudan) has increased over the last two decades, accounting for 30 and 10 percent of global consumption in 2015, respectively (ICO Data).

¹⁴⁴ Instant coffee is increasingly produced in coffee growing countries, most processing facilities are however owned by international roasters (for instance Nestlé) or international traders (Olam).

1989 has been labelled “buyer-driven”, “roaster-driven” or “trader driven” (Ponte 2002; Daviron/Ponte 2005).

Within the group of international coffee traders and roasters, expansionary business strategies and mergers have triggered a strong concentration process over the last decades. With Neumann Kaffee Group and Ecom, the largest two companies handle roughly 30% of all global green coffee trade. The leading eight trading companies take up more than two thirds of global green coffee exports (see Tröster 2015 for more details).¹⁴⁵ In addition, the role and the business structure among large roasters have changed over the last decades. The top three roasters, namely Nestle, Starbucks and Jacobs Douwe Egberts, account for more than 50% of global coffee sales in 2014 (Quartz 2014). This indicates leading roasters have established high value creation via coffee shops (Starbucks) or product innovations (Nespresso) in recent years. In addition, retailers still play a crucial role in the coffee commodity chain as around three quarters of all coffee in the major importing countries is sold in retail stores (ICO 2012).

Table 47: Coffee Export Flows (2015, million USD)

Green coffee*		Roasted Coffee **		Instant Coffee ***	
Total value	19,112	Total value	10,029	Total value	5,120
Brazil	5,555	Switzerland	2,024	Germany	800
Colombia	2,534	Italy	1,362	Brazil	576
Viet Nam	2,403	Germany	1,230	Indonesia	339
Indonesia	1,190	USA	762	Netherlands	303
Ethiopia	1,018	France	691	India	254
Honduras ⁺	783	Poland	483	Spain	233
Guatemala	663	Netherlands	471	Colombia	229
Peru	580	Belgium	470	Viet Nam	222
India	535	Canada	435	France	181
Uganda	402	Czech Rep.	432	UK	169

Note: *HS 090111 and HS 090112, **HS 090121 and HS 090122, *** HS 210111, + Data from 2014.
Source: UN Comtrade 2017

The end of the ICA had consequences with regard to price volatility and price transmission from international coffee prices to prices paid to local farmers and processors (Akiyama et al. 2003; Bargawi/Newman 2013; Lukanima/Swaray 2014). The global benchmark coffee prices are futures contracts on Arabica and Robusta coffees. Arabica contracts were traditionally traded on the International Commodity Exchange (ICE, formerly NYBOT) in New York, while futures on Robusta coffee were traded on the London International Financial Futures and Options Exchange (LIFFE). After several mergers, the ICE now provides trading of both futures in both locations. The international prices for Arabica and Robusta coffees generally follow similar price trends¹⁴⁶; Robustas are however traded with a discount to Arabica (see Figure 28).

Liberalized structures in coffee producer countries have generally led to an increased farmers’ share of export prices.¹⁴⁷ At the same time, the exposure of local actors to variations in international coffee prices has increased, while the abilities to mitigate these price risks has remained low for (small-scale) actors in producer countries. With volatile prices, determined on commodity futures markets, the divergence in exposure and management

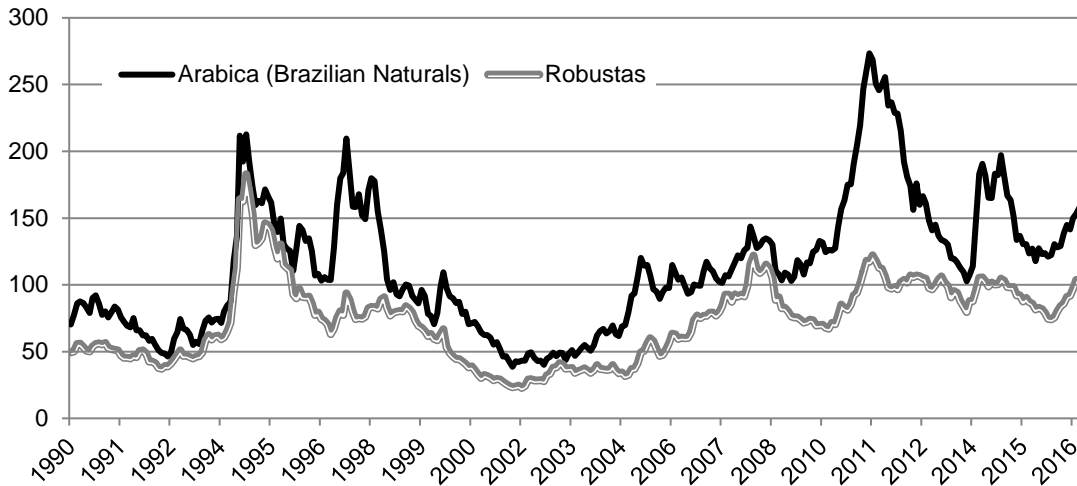
¹⁴⁵ Single trading companies can have a significantly higher share in exports of individual producer countries.

¹⁴⁶ The major exception was the diverging trends from 2009 to 2012.

¹⁴⁷ The elimination on taxes contributed significantly to the increasing share of farm-gate prices; however these taxes were at least partly used for supporting sector development through the provision of certain services (Petit 2007).

of price risks between coffee producers and international actors has contributed to further inequalities along the coffee value chain (Bargawi/Newman 2013).

Figure 28: International Coffee Prices (monthly, US Dollar Cents per lb)



Source: ICO (2017)

The options for upgrading in producer countries in the coffee value chain include the creation of forward linkages to processing of green coffee beans to roasted or instant coffee. In addition, improvements in terms of quality (taste, defects, moisture content), type of production (organic, shadow grown), type of processing (dried, wet), traceability (single origin) and type of marketing and pricing (fair trade, speciality coffees, direct exports) can increase value addition in producing countries. However, the stabilization of production (also with regard to climate change) and improvements in productivity are still major concerns for most producer countries which impacts not only on unprocessed coffee production and exports but also on the viability and sustainability of potential processing activities.

5.4.2. The coffee sector in Uganda

Uganda is the second largest coffee producer in Sub-Saharan Africa, accounting for approximately 2.5% of global coffee production (ICO Data). While the top SSA exporter and consumer, Ethiopia, is focused almost exclusively on Arabica coffee, the majority of coffee production in Uganda is made up by Robusta coffee, which is indigenous to Uganda. The share of Robusta in total coffee production is 80-85%. However, the production of Arabica coffee has become more relevant in recent years (UCDA Statistics).

With a still low level of domestic coffee consumption, 95% of the total production is exported as unprocessed, green beans. Approximately 70% of these exports are destined for the EU market. Exports to the regional market, in particular Sudan, Tunisia and Morocco, amount to around 20% (UCDA Statistics). Most importantly, green coffee beans are still the main export good for Uganda with up to one third of all goods exports (UN Comtrade).

Coffee is mostly grown by smallholders in mixed stands with other food crops such as bananas, beans or maize which are mainly used for subsistence consumption. The large majority of coffee (95%) is produced by farmers with up to two hectares of land. Only 4% of coffee production is done on large scale private farms with 50 to 60 hectares of land,

while the remaining 1% is grown on plantations¹⁴⁸. Inputs (fertilizers, pesticides) are rarely used by small-scale producers and family labor is highly important of which 50% is comprised of women (UNDP 2012; Tachel/Wanda 2014). On the whole, coffee is the main source of cash income and employment for up to 1.5 million households (MAAIF 2013)¹⁴⁹ and has a crucial impact on poverty levels in coffee growing regions (Baffes 2006; Bussolo et al. 2007).

The coffee sector in Uganda is the most liberalized coffee market in East Africa (Newman 200: 552) due to structural reforms in the sector in 1990/91.¹⁵⁰ The local supply chain is characterized by a large number of smallholders on the bottom and currently 35 exporting companies on the top. These groups are interconnected by local traders and primary processors that aggregate, transport and process coffee cherries to beans.

Smallholder farmers growing Robusta are largely unorganized and sell dry cherries (kiboko) to local traders and collectors. These typically arrange hulling¹⁵¹ and sell green beans as fair and average quality (FAQ)¹⁵² mainly to larger merchant traders (so called FAQ-traders). In a next step, FAQ coffee is sold to export companies at the gates of their processing facilities in Kampala. After coffee beans are sorted into different export grades, export companies arrange transport with trucks to Mombasa (Kenya) for further shipping to international destinations.

The total number of local traders in the sector is approximately 6000 (World Bank 2011), of which more than 300 are FAQ traders. The larger traders employ up to 800 workers. The labor intensive activities of the more than 160 processing companies create more than 2,200 jobs (Mbowa 2013). The sorting of coffee beans by export grades is typically a labor intensive job with relatively large employment opportunities for women. Increasing mechanization limits potential employment effects, however.

Export companies play a decisive role in the sector. After a rapid entry of mostly local exporters after the liberalization in 1990/91, the number of exporting companies has stabilized at around 30 since the 2000s. Most importantly, the large majority of exports are handled by subsidiaries or agents of multinational trading companies. Thus, 70 to 80% of export quantities are concentrated on the top 10 exporters which typically sell to their parent companies (UCDA Monthly Reports).

The production of coffee and with it exports have recovered to levels seen in the late 1990s. Affected by various factors (see discussion below for more details), Robusta export declined from more than 2.6 million 60-kg bags in 2000/01 to 1.4 million bags in 2005/06. In the last season 2015/16, more than 2.4 million bags were exported. The steadily increasing production and export of Arabica contributed importantly to the export performance, accounting for one quarter of exports in terms of quantities and one third in terms of value in 2015/16 (UCDA Monthly Reports). Quality of exported coffee beans (indicated by bean size, color, share of broken beans) remained stable in recent years and supports the view that the deterioration of quality in the 1990s and early 2000s after the liberalization of the sector has been successfully addressed (Baffes 2006; World Bank 2011). But the share of high-value Robusta coffees (washed, organic) has increased only slightly to 1.6% in 2014/15.

¹⁴⁸ For instant, the Kaweri Coffee Plantation with more than 1500 hectares belonging to Neumann Kaffee Group.

¹⁴⁹ The number of 500,000 smallholder farmers is commonly used in the literature. However, estimations of households depending on coffee for their livelihood range from 1 to 1.7 million (UBOS 2011; MAAIF 2013; UCDA 2017).

¹⁵⁰ Prior to the liberalization, Ugandan coffee exports were centrally controlled via a Coffee Marketing Board and local marketing included private and cooperative marketing channels (Baffes 2006, Newman 2009).

¹⁵¹ Mill owners do not buy kiboko cherries but provide hulling services for a fixed fee to local traders (Mbowa 2013).

¹⁵² FAQ coffee beans are not sorted by size and shape of the bean and are not ready for export.

Table 48: Coffee Exports 2000-2016 (in '000 60-kg bags)

	2000/01	...	2005/06	...	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Total	3,075	..	2,002	...	3,149	2,726	3,583	3,500	3,456	3,316
Robusta	2,618	..	1,408	...	2,484	1,904	2,781	2,735	2,723	2,435
Arabica	457	..	594	...	665	822	801	765	733	880

Source: UCDA 2017

As indicated, production of coffee in Uganda declined from its highs in the season 1996/97 with more than 4.2 million bags exported to a low in 2005/06 with only 2 million bags exported. Several factors contributed to this development. Firstly, international coffee prices declined significantly between the mid-1990s and early-2000s (Figure 28), making coffee growing less profitable (Baffes 2006). Secondly, the sector suffered from Coffee Wilt Disease (CWD), a fungus that affects Robusta trees only and causes wilting and eventually death of infected trees (Baffes 2006). It is estimated that since 1993, 50% of the Robusta coffee tree population has been destroyed (UCDA 2016; FAO 2012). Thirdly, a large share of coffee trees not affected by the CWD surpassed the economically productive life span of 40 years, leading to lower yields than optimal.

The response to CWD and low productivity has been a broad coffee replanting program. Administered by the Uganda Coffee Development Authority (UCDA)¹⁵³, the program aims to cultivate high-yield and disease resistant coffee seedlings¹⁵⁴ in private nurseries which are re-bought by UCDA and distributed free of charge to coffee farmers. Overall, the program has contributed to growth in coffee production and exports since 2005/2006. The replantation program faces several constraints, however. The cost of 18 million US Dollar (67.8 billion UGX) in 2015/16 to distribute 93 million seedlings need to be covered by the government and is not part of the UCDA budget. Still, quality and prices of seedlings range widely.¹⁵⁵ Due to cost constraints and the lack of nursery capacities, a large share of non-resistant seedlings is still distributed¹⁵⁶ (Ssali 2016). In addition, the survival rate of donated seedlings is weakly controlled due to the constraint extension services provided by UCDA.

In addition to the CWD containment program, policies focus on the expansion of acreage in traditional and new coffee areas. For instance, UCDA has launched a coffee growing project in Northern Uganda targeting poverty reduction in this non-traditional coffee growing area (Mbowa et al. 2014). On the whole, the planted area has increased significantly in the whole of Uganda from 230 thousand hectares in 2008/09 to more than 350 thousand hectares in 2015/16 (USDA 2016). While the area expansion caused increased coffee production, the yield remains low as 550 kg per hectare (World Bank 2011). The current "low-input, low-effort" model in the Ugandan coffee sector is potentially limited by scarcity of land related to population growth. This land constraint affects the participation of the youth on the one hand, as the limited access to land favors the production of coffee by established households (Mbowa et al. 2013). On the other hand, the establishment of large coffee plantations in Uganda has triggered a broad discussion on land rights and the right to food (see for instance Graham et al. 2010).

¹⁵³ UCDA is a governmental authority with a comprehensive mission, ranging from the promotion, improvement and monitoring of coffee marketing to quality control, promotion of domestic consumption to the formulation of national policies.

¹⁵⁴ Research on resistant coffee varieties is in the responsibility of the National Coffee Research Institute (NaCORI), a spin-off from the National Agricultural Research Organisation since 2014. The institute cooperates with private nurseries to ensure cultivation and distribution of mother gardens (MAAIF 2013).

¹⁵⁵ 'Elite' coffee seedlings start from 350 UGX, seedlings from tissue culture from 1,500 UGX (UCDA 2017).

¹⁵⁶ According to UCDA estimates, the Wilt Disease fungus is passively present in 30% of all coffee trees.

The volatility of global coffee prices and the transmission to prices paid to farmers and local traders are largely perceived as a major challenge for the sector (UCDA 2017; World Bank 2011). Within the liberalized marketing system in Uganda, price variations on global markets are more or less directly transmitted to local actors, which have limited abilities to use price risk management (Newman 2009; Tröster 2015). Local exporters generally face financial and operational constraints compared to exporters associated with international traders with regard to risk management (Newman 2009). On the farm level, high price volatility is a disincentive to engage in high-input, high-effort production, which feeds back to the problem of low-yields. Most importantly, price volatility is a risk to household incomes and food security of coffee growers, as 50% of cash income in an average year stems from coffee (UCDA 2017).

A further attribute of the Ugandan coffee sector is the low level of value addition, given that 95% of coffee exports are green coffee beans. Upgrading by product and function are largely dismissed due to the potential constraints (Baffes 2006). A crucial constraint is the dependence on Robusta coffees which are largely exported as bulk ware and used for blending by international roasters and therefore have limited ability to be promoted as specialty coffees with single origin. Hence, Robusta coffees are largely processed in consumer countries given the strategy of roasters to mix them with other types of coffees which makes processing in producer countries and hence functional upgrading to this stage non-effective. Also, as indicated above, only a small share of Robustas are washed, certified or produced organically which would increase value addition through product upgrading.

Nevertheless, various efforts are undertaken to strengthen profiling, marketing and international cooperation and to promote traceability, for instance in the Center for Robusta Excellence (CORE) project by UCDA. Some international traders also engage in branding Ugandan coffee. For instance, Volcafe exports fine washed Robusta coffee branded as “Queen of the Nile” (Volcafe 2012). Hence, there is scope for product upgrading in Robusta, but on a limited scale compared to Arabica.

On the processing side, there has been an increasing number of domestic roasters – currently 11 companies. They are active in major cities and sell coffee to local supermarkets and restaurants. They are supported by campaigns for domestic coffee consumption that have been initiated by UCDA as part of the National Coffee Policy. Their main constraints relate to the relatively high price of coffee compared to black tea which is therefore preferred by consumers and the limited availability of Arabica coffee for local blending as this type of coffee is in high demand by international traders and hence used for exports. Processed Ugandan coffees have currently limited potential for the EU market given the blending and product development strategies of international traders and roasters. But further diversification to Arabica coffee as well as specialty product marketing strategies may also open prospects in international markets. Moreover, regional integration could play an important role in terms of using different coffees from the region for blending for domestic and regional markets. With regard to demographics of the national and regional population, there is the need to take into account potential changes in demand and consumption in the region and in other emerging markets (UNDP 2012). Locally developed and produced value-added coffee products that target these changing tastes in new markets will be an important trigger to build up processing capacities that eventually can also expand to international markets.

5.4.3. Impact of the EPA

With regard to tariffs, the EAC-EPA ensures the long-term DFQF access to the EU-market, which is the major export destination for coffee products from the EAC region as a whole and for Uganda, Rwanda and Burundi, specifically (UN Comtrade). Unprocessed green coffee beans have also tariff-free access under GSP and MFN conditions. All processed coffee products (decaffeinated, roasted, instant coffee) would however face GSP tariffs of 2.6 to 4.8% and MFN tariffs ranging from 7.5% to 9%. Only GSP+ grants DFQF access to the EU. Hence, the EPA secures DFQF market access for processed coffee products also in the event of losing LDC status. Currently, this is only relevant for the non-LDC Kenya (see also discussion on cocoa products from Ghana in Section 4.4.3.).

On the import side of the EAC region, all coffee products (HS 0901, 2101) are exempted from tariff liberalization and face a common external tariff of 25%. Hence, no competition on the domestic and regional markets is expected due to the EAC-EPA which also ensures opportunities for processing in these markets that however need to be used and supported through strategic interventions.

RoO play an important role in the context of developing processing activities in Uganda and the region. As discussed above, marketing of roasted or instant coffee in the EU is largely determined by current governance structures dominated by international roasters and traders which limit the possibility for single producer countries to upgrade to processing. However, through regional cooperation among EAC states blending, processing and marketing capacities could be increased which might allow easier access to the EU market. Most importantly, in all other EAC member states, Arabica coffees are the major type of production. This is possible as the EAC-EPA includes the provision of regional cumulation of green coffee beans for roasted and decaffeinated coffees, which are generally listed as wholly obtained products. This would allow the export of processed coffee products from green coffees sourced from different EAC countries. In the case of instant coffee products, there are limits on the share of sugar included. However, currently, the only instant coffee facility in East- and Central Africa is based in Tanzania (Tanganyika Instant Coffee Public Limited Company) and exports instant coffee for up to 600,000 US Dollar to the EU (UN Comtrade). This facility is also used for instant coffee production including the use of Ugandan coffee for the Ugandan market (USDA 2016).

In the context of primary processing, SPS regulations are also important as the moisture content of coffee cherries is decisive to prevent contamination with Ochratoxin A. Thus, the promotion of proper technologies and processing and handling practices on the farm level are crucial to comply with international and EU SPS standards. Quality controls along the entire value chain are an important risk management tool in this context. Even though there are quality and sanitary controls for exports by UCDA in place, the major challenges are poor post harvesting handling that increase the risk of contaminations.

In terms of supporting SPS and other standards to increase quality and productivity as well as supporting product marketing strategies and processing activities to increase the value added of coffee exports to the EU and hence the developmental effects of the coffee sector, EPA-related development cooperation will have an important role. The support of the coffee sector is also particularly important from a sustainability and poverty reduction perspective given the importance of smallholders and the impact on income, employment and poverty in rural areas. The EAC-EPA does not emphasize the role of the coffee sector per se, even though green coffee beans (HS 091111) are the major export product of the EAC region as a whole and for Uganda, Rwanda and Burundi, specifically (UN Comtrade). The articles concerning agriculture generally (Part IV: Articles 57 to 74 and development) are

hence also relevant for the coffee sector. The areas of cooperation are part of Title II (Article 83). In the case of the coffee sector, several areas of cooperation could be emphasized with regard to the current constraints of the sector.

The most important sector institution that conducts most sector development activities is UCDA which is largely financed by a one percent export tax on coffee exports (4 million US Dollars in 2015/16) and is supported by international donor organizations. International coffee companies are also engaged in projects concerning extension, processing and social, gender and environmental issues (see for example the Ugandan Coffee Farmers' Alliances supported by the Hanns R. Neumann Stiftung, Techel/Wanda 2014). However, their projects often focus on the promotion of high-value Arabica coffees and reach only around 15% of coffee farmers Uganda. Hence, UCDA is crucial for the development of the sector. In this regard the EAC-APA could be problematic as Article 14 states that new export duties and taxes are generally prohibited. Exemptions can be allowed for a limited number of products for a limited period of time (48 months) in specified circumstances. Among them are the development of a domestic industry and currency stability in the case of increasing world price of an export commodity. This importantly limits national policy space and the use of export taxes as a permanent financial source for sector-specific institutions such as UCDA in Uganda which is of crucial importance for the development of the sector.¹⁵⁷

UCDA has focused its activities on the resource intensive replanting program and area expansion projects with less effort in the areas of extension services and support for primary processing. Thus, efforts to distribute high-yielding and CWD-resistant seedlings should be accompanied by adequate services on the farm level in order to create higher productivity in the sector. In addition, production techniques that allow better adoption to changes due to climate change need to be developed and promoted (research on varieties, irrigation systems, etc.) (ICO 2009; UNDP 2012; Jassogne et al. 2013). Further, the possibilities for product marketing and processing of green coffee beans to roasted and decaffeinated coffees as well as instant coffee products that are provided by the EAC-APA particularly in terms of regional cumulation should be proactively supported.

On the farmers side, an efficient means to overcome various farmer-level constraints in the coffee sector and included in the EAC-EPA objectives for agriculture in Article 58 (i), is the promotion of cooperation which is also part of the National Coffee Policy (MAAIF 2013). The large-scale cooperative system was dismissed in the liberalization process of the early 1990s. Currently, more than 350 farmer organizations exist¹⁵⁸, but cooperatives directly export only a minor share of all exports (World Bank 2011). Via organized cooperative groups, small-scale producers can achieve economies of scale in purchasing inputs and improve access to credit or technical assistance as well as higher bargaining power vis-à-vis traders and exports (World Bank 2011).

Most importantly, cooperative groups have the potential to tackle economic, social and environmental issues. Firstly, cooperatives can offer secondary payments when coffee beans are successfully marketed which reduces the risk of discounted sales in cases of emergency (Chiputawa et al. 2015) and partially mitigates risks of volatile coffee prices (Tröster, 2015). Secondly, cooperatives can engage in secondary or tertiary processing activities and redistribute value added within the local chain to farmers and hence create value addition beyond the traditional supply chain. This is further enabled by collective

¹⁵⁷ More generally, the funding for the development of other export sector faces the same constraints.

¹⁵⁸ See for example NUCAFE and Uganda Coffee Farmers' Alliance as a private initiative for more cooperative organization on the farmer level.

marketing efforts that can meet international market requirements of traceability and sustainability (World Bank 2011). Thirdly, cooperatives can enable certification and entry to Fairtrade schemes. As Chiputawa et al. (2015) show for the case of Uganda, Fairtrade cooperatives have a positive effect on poverty reduction due to minimum prices and investments in infrastructure and training.

5.4.4. Conclusions

The coffee sector is highly relevant for the Ugandan economy contributing to export earnings and cash incomes for a large share of rural households. The sector is characterized by a largely smallholder production system with up to 1.7 million smallholder households depending on income from coffee. The large share of production accounts for Robusta coffee and has low yields. The regulatory context is liberal (in contrast to a more regulated system in the cocoa sector in Ghana for example, see Section 4.4.) with large international coffee traders and roasters playing dominant roles.

The EAC-EPA continues DFQF access to the EU market on a secured basis providing stability. On the import side, tariff liberalization on coffee products is exempted in the EAC region. Besides export tariffs, the EPA has an impacts on RoO allowing for regional cumulation and particularly SPS standards which remain key for market access. To tackle challenges at the farmers side related to productivity and quality as well as increase value addition through product and functional upgrading, EPA-related development cooperation will be important. 'Low hanging fruits' in the development of the sector are increasing productivity and area extension to increase total coffee production and exports and further develop the share of Arabica coffee in total production. The provision of extension services and supporting the collaboration among farmers are important areas that require increased policy effort. These measures to advance the production of coffee should also target the Eastern and Northern regions that are relatively poor and vulnerable.

Within the liberalized coffee sector in Uganda, smallholders are highly vulnerable to price volatility, transmitted from international futures markets that serve as global price benchmarks. The lack of access to some form of fixed or minimum prices and price risk management tools are risks for rural household incomes in the short run and might lead to a replacement of coffee production by other crops in the longer-term, reducing production and productivity. Price risks of individual smallholders should be mitigated by the support of cooperative structures as well as sector wide measures in order to ensure the effectiveness of any production and productivity enhancement efforts.

Finally, the potential for upgrading to speciality coffees and processed coffee need to be addressed and developed to enable Uganda to move into higher value added areas of the value chain which is decisive for creating growth and development potentials. A regional perspective will be important for both strategies particularly given the availability of different coffee types in the region that allow for blending and product marketing.

5.5. CASE STUDY V: Effects of the EAC-EPA on the Fish Sector in Uganda

The sectorial case study of the fish sector in Uganda shows the importance of specific sector and value chain dynamics as well as local conditions in being able (or not) to use market access potentials on the export side. To understand the development implications of the EPAs for ACP fish exporting countries, it is crucial to analyze the regulatory changes the EPAs have brought. But the analysis of regulatory changes has to be done in combination with assessing competitive business dynamics within the fish GVC and particularly the sourcing and investment strategies of lead firms to understand potentials for and limitations of export responses. But also local conditions clearly have a large impact on the

possibilities to use the export potential of the EPAs. Specifically, in SSA countries local productive and institutional capacities and capabilities on the firm side as well as the government side are often very restricted which limits entrepreneurial and policy response to the EPAs. This one's more highlights the importance of development cooperation to support sector-specific policies and projects at the national and regional level.

The establishment of global fish value chains over the last decades is an example of international food networks that interlink low- and high-income countries. In particular the demand for high-value fish and seafood products for instance in EU member states, enabled the participation of low-income countries in this value chains. This participation requires a strong political commitment and legal framework to fulfill sanitary and ecological standards set by EU institutions and international buyers which is challenging for many producer countries such as Uganda. The case study of the Ugandan fishing sector shows further the complex interconnections between fish value chains for export and local consumption. While the export of Nile Perch has been an important sub-sector for increased export earnings, increasing fishing efforts and other factors have threatened the viability of this value chain and have also had diverse implications on the sustainability of artisanal fishing and domestic consumption. Fisheries management policies to sustain the exports of Nile perch to the EU hence need to follow a holistic approach taking into account export growth as well as local artisanal livelihood and domestic market interests to be effective and to ensure sustainable development outcomes.

The case study of the Ugandan fish sector highlights the potential impact of the EPA in the context of current challenges in the fish sector. This section starts with an overview of the development of the global fish and seafood value chain. Thereafter, dynamics in the Ugandan fishery sector are presented including current challenges and different fishery management approaches. Based on this analysis, we discuss the potential impact of the EAC-EPA on the further development of the sector, particularly given that the EAC-EPA includes comprehensive provisions with regard to the fishery sector. A specific focus is put on potential areas for development cooperation. We conclude by examining the development implications of the EPA and potential upgrading opportunities in the fish sector in Uganda.

5.5.1. The Global Fish Value Chain

The global consumption of fish and seafood has increased steadily over the last decades from less than 12 kilogram per capita and year in 1980 to 19 kilogram in 2013 (FAO 2017). This process was enabled by a dynamic development in production and trade in fish and fish products with production volumes tripling and export volumes increasing by the factor 15 in the period from 1980 to 2014 (FAO FishStatJ). Most importantly, average export prices of fish and seafood products per kilogram increased simultaneously which in addition to higher volumes made fish and seafood to the most important food commodity by export value (Asche et al. 2015).

Despite these increasing trends in international fish production, trade and consumption, a disaggregated perspective reveals a more diversified picture, in particular in consumption patterns (Béné et al. 2009).¹⁵⁹ While production (catch and aquaculture) is dominated by Asian countries, high income countries (in particular the EU) are the major exporters and importers, accounting for more than half of global trade in value (Table 49). However, actors in low and middle income countries such as China, Vietnam, Senegal or Uganda have been increasingly integrated in fish and seafood GVCs. This also includes artisanal fishers

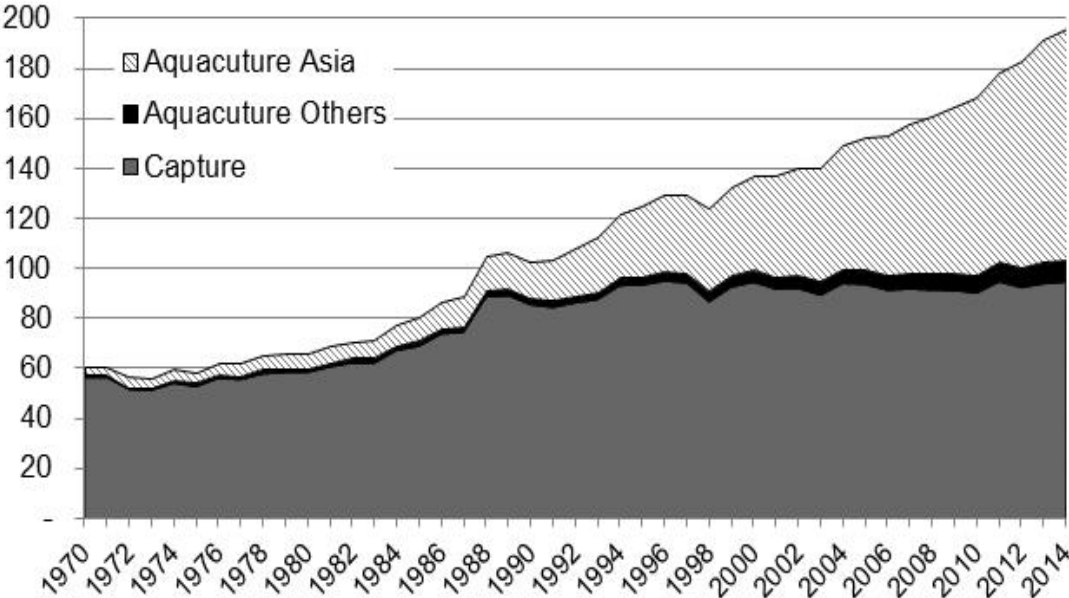
¹⁵⁹ Regional dynamics in fish and seafood consumption differ significantly. Per capita supply in Eastern Asia almost tripled to 36 kg/year between 1980 and 2013. In the same time period, supply per capita in Southern and Eastern Africa declined by 25% to 6.1 and 4.8 kg/year, respectively (FAO 2017).

in these countries. Thus, various institutions and scholars promote the fishery sector as a potential engine of growth, source for foreign exchange earnings and instrument for poverty alleviation in developing countries if managed correctly (Willmann/Kelleher 2009; EC 2015c; FAO 2016). The development of the fishery sector with the aim to increase trade faces however potentially conflicting fields of interest concerning sustainability, food security and welfare creation, which is a challenge for fisheries management (Nunan 2014).

Global production in fish and seafood has changed drastically in the last four decades. A first trend is the increase in production from 65 million tons in 1980 to 195 million tons globally in 2014. This development appeared despite – and because – of the resource base problems of the traditional North Atlantic and Pacific table fish systems, as the increase in production is based on aquaculture production, mainly in Asia (Gibbon 2001). With the shift in production patterns, Asia became the dominating area of production as 75% of total fish and seafood production originated mainly from South-East Asia in 2014 (compared to around 50% in the 1970s and 1980s). Aquaculture production is now the major type of fish and seafood production with 52% of global production, of which 92% is based in Asia (Figure 29).

Contrary to production patterns, the EU and other high income countries such as Norway, the USA and Canada are the dominant actors in the global fish trade system. Middle income countries have emerged as net exporters in fish and seafood, including processed products, however. The changes in production and consumption patterns allowed low income countries such as Uganda to integrate into specific fish value chains (Gibbon 2001; Ponte 2005). Nevertheless, low income countries still play a marginal role with an export share of one percent in 2015 (see Table 49). Most importantly, low income countries as a whole are net exporters in value terms, but net importers by quantity. This indicates that high-value fish and seafood is exported, while more affordable fish is imported by low income countries.

Figure 29: Production of fish and seafood by type and area of production (in million tons)



Source: FAO FishStatJ

*Table 49: Trade in fish and fish products by regional and income groups 2015
(million USD)*

Importer	Exporter	1) EU	2) Low income	3) High income	4) Upper middle income	5) Lower middle income	Others	Exports	Net Trade
1) EU		18,834	66	2,535	754	589	65	22,842	- 21,995
2) Low income		516	56	282	197	151	2	1,203	826
3) High income		12,244	40	15,770	6,666	1,035	408	36,162	- 13,459
4) Upper middle income		7,193	137	18,699	5,496	1,235	315	33,074	16,507
5) Lower middle income		5,873	78	11,306	2,896	1,066	317	21,537	17,296
Others		176	1	1,030	559	164	1	1,932	824
Imports		44,836	377	49,621	16,568	4,240	1,108	116,750	

Note: Includes HS 03, 1604 and 1605.

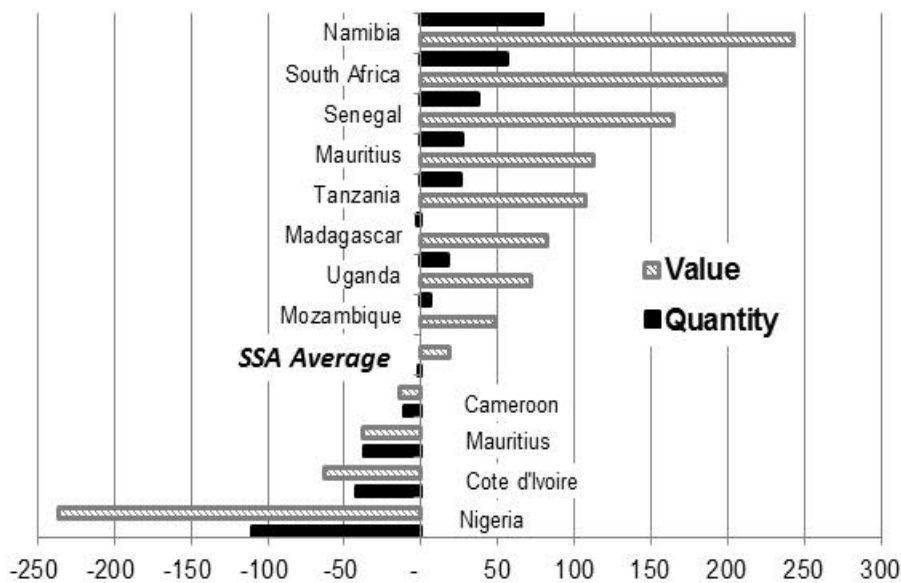
Source: UN Comtrade 2017

These contrasting patterns in trade by value and quantity are also seen in Sub-Saharan Africa as a whole. Analyzing trade flows of SSA countries with the EU from 2000 to 2015, a SSA country exported on average 6,800 thousand tons of fish and seafood but imported 9,200 thousand tons per year. However, the average export earnings of 26.7 million EUR exceeded the expenditures on imports of EUR 7.4 million per country and year significantly. In terms of price per kilo this translates into an average export price of 3.90 EUR/kg and an average import price of only 0.82 EUR/kg (Eurostat Data). These immense price differentials by export destinations make the EU the most important export destination for SSA fish and seafood in value terms, while the low-price intra-SSA trade is most important in quantity terms. Thus, shifts in trade flows to alternative export markets and local markets are potentially determined by price differentials.

On a disaggregated level, EU-SSA trade in fish and seafood is shaped by a limited number of countries with considerable positive and negative trade balances. In trade relations with the EU, countries in Southern and Eastern Africa are major net-exporter in terms of value and quantity. In contrast, most Western African countries are net importers in value as well as in quantity (Figure 30). The SSA average in Figure 30 indicates again the contrast between net trade in value and quantity as described above.

On the whole, trade patterns of SSA countries support pro-fish trade policies, given the trade surplus in value terms and the potentially positive function of trade for food security as high-value fish exports enable imports of higher volumes of lower-value fish. However, positive trade patterns are not necessarily linked to positive effects on economic development and in particular poverty reduction (Béné et al. 2010). Therefore, an in-depth analysis on production, consumption as well as structure and regulation of the fish value chains in single SSA countries is required to draw conclusions on sustainable development and welfare aspects of the fishery sector.

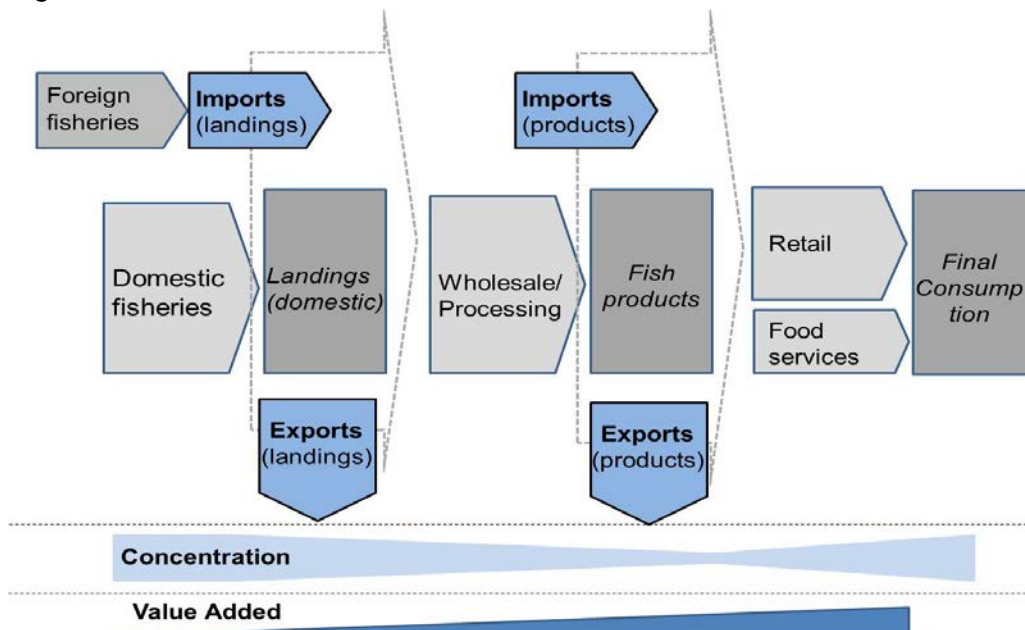
Figure 30: SSA net trade in fish and seafood with EU, average 2000 to 2015 (in million EUR and million kg)



Note: Average balances per year of trade in HS3 products.
Source: Eurostat 2017

Value chains in the fishery sector can be differentiated by several dimensions including marine and inland fishery, artisanal and industrial fishery, types of processing and transportation as well as consumption patterns. A schematic representation of fish value chains is provided in Figure 31, which focuses on a national fishery value chain including in- and outflows from and to trading partners. In addition, concentration levels and value addition along the chain are illustrated.

Figure 31: Global Fish Value Chain



Source: Based on a concept presented in Smaila and Tesfamichael (2015: 219)

Actors along the fish value chain typically include fishermen, processing companies and retailers. Between these major actors, middlemen, agents, international traders as well as logistics companies are responsible for distribution, transportation and storage of fish and seafood products. Actors might well be vertically and/or horizontally integrated to different degrees (for instance, maritime vessels with processing). The structure of value chains in the fishery sector is largely influenced by the “fisheries globalization process” in recent decades (Schmidt 2003). This process is indicated by increased trade in fish and seafood and foreign direct investments in production (aquaculture), harvesting and processing as well as the offering of fisheries and logistics services.

The general trend to more trade in fish and seafood and changes in the type of production also influenced the governance structure of value chains. Gibbon (2001: 355) identified farm-packers, merchandisers and prepared food supplies as new dominant players, mainly related to aquaculture products. Moreover, actors such as retailers and international traders play important roles in global fish value chains. As a means for governance, public and industry standards on hygiene and technical barriers (labeling, portions sizes) are decisive. Most importantly, hygiene standards in fish value chains are product as well as process standards with implications for all actors along the value chain as the example of Nile perch from Uganda shows (see below). In addition, the impact of trade agreements is highly relevant in this context (for instance EU fishery agreements) (see Béné et al. 2010).

These trends impact on concentration levels along the different components of the value chain. With artisanal fishers included, numerous smallholders or employed fishers are part of the initial stage of the value chain. Processing and trade as well as retail are typically done by a limited number of actors leading to higher levels of concentration in these parts of the chain. The distribution of value added in the fish value chain is typically skewed towards processing and retailing activities, similar to other value chains of agricultural products (Ponte 2005).

5.5.2. The fishery sector in Uganda

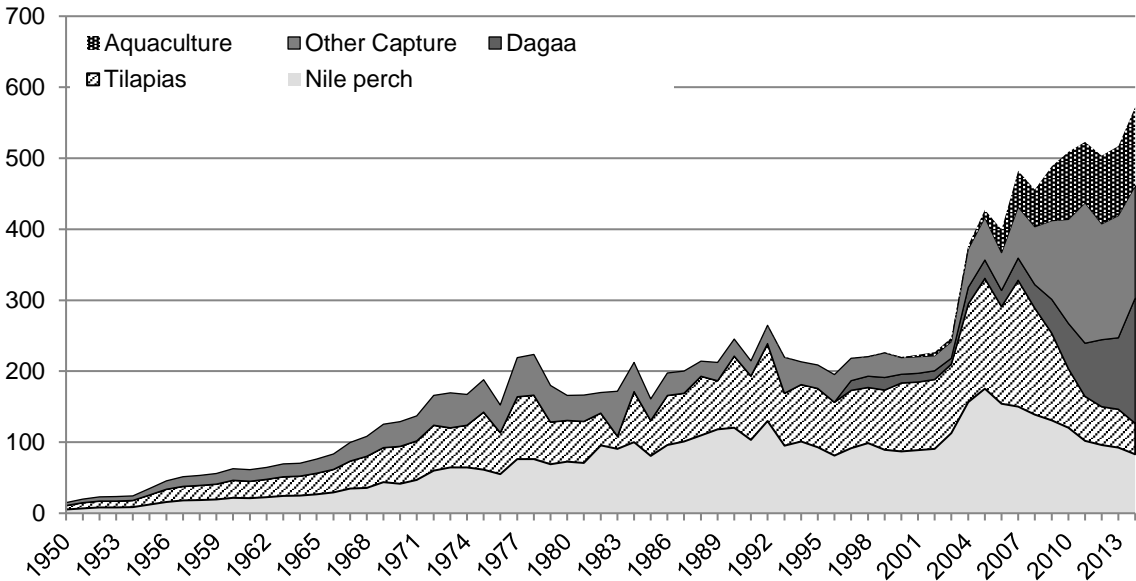
The fishery sector in Uganda has experienced drastic changes over the last decades with regard to volume and composition of fish catch, fishing effort and yield as well as socio-economic factors. In particular the establishment of a value chain for the export of fresh and frozen Nile Perch (*Lates niloticus*) fillets from Lake Victoria and its economic and social impacts has drawn specific attention of researchers, policy makers and donor organizations. With the significant downturn in catch and export quantities of Nile Perch from Uganda since 2005, a broader discussion on a suitable development strategy for the sector has emerged. In particular, policies on open access to common fish resources are questioned by various actors in order to revitalize the high-value export sector. In this regard, the EAC-EPA with its focus on sustainable development of the fishery sector can have a vital impact on the future role of the sector and socio-economic development of Uganda and the EAC region.

Around 20% of Uganda’s surface is covered by water, comprising five major lakes (Victoria, Albert, Kyoga, Edward, George) and about 165 minor lakes, rivers and wetlands (MAAIF 2010). The most important waterbody for fishery is Lake Victoria which contributes 50% to 60% of annual fish catch quantity in Uganda (Kjaer et al. 2012a). As the Lake Victoria is shared with the EAC members Kenya and Tanzania, transformations in the fishery sector necessarily require a regional perspective.

Fish has always been an important source of food in Uganda (12 kg/capita/year on average¹⁶⁰), covering one third of animal protein supply per capita (FAO Statistics). Given the strong population growth (average of 3.1% per year since 1960), the Ugandan fishery sector has expanded drastically, as the development of the annual catch quantity (excluding Nile perch) shows (Figure 32). In contrast to Mukene (also known as Dagaa, *Rastrineobola argentea*) and Nile Tilapia (*Oreochromis niloticus*) which are mainly used for local consumption and regional exports, developments of Nile perch catches are also linked to the establishment of a fish processing and export sector in the late 1980s.¹⁶¹

The change in the composition of catches – visible in Figure 32 – indicates the extreme variations in the fauna of Lake Victoria that often occurred over only a few years, in particular after 2001 (Kolding et al. 2014). The introduction of the Nile perch and the Nile tilapia in the 1950s and 1960s for the purpose of converting the small, but abundant haplochromine cichlids to suitable table fish was followed by a radical depletion of biodiversity in Lake Victoria (Kolding et al. 2014; LVFO 2016).¹⁶² The formerly multispecies fishery with more than 500 endemic species became dominated by three species: Nile perch, Mukene and Nile Tilapia. Only recently, catches of formerly dominating Haplochromine species have reemerged in Lake Victoria (NaFIRRI 2016a; Mkumbo/Marshall 2015; Kolding 2014).¹⁶³

Figure 32: Annual fish catches in Uganda by species, aquaculture extra (in '000 tons)



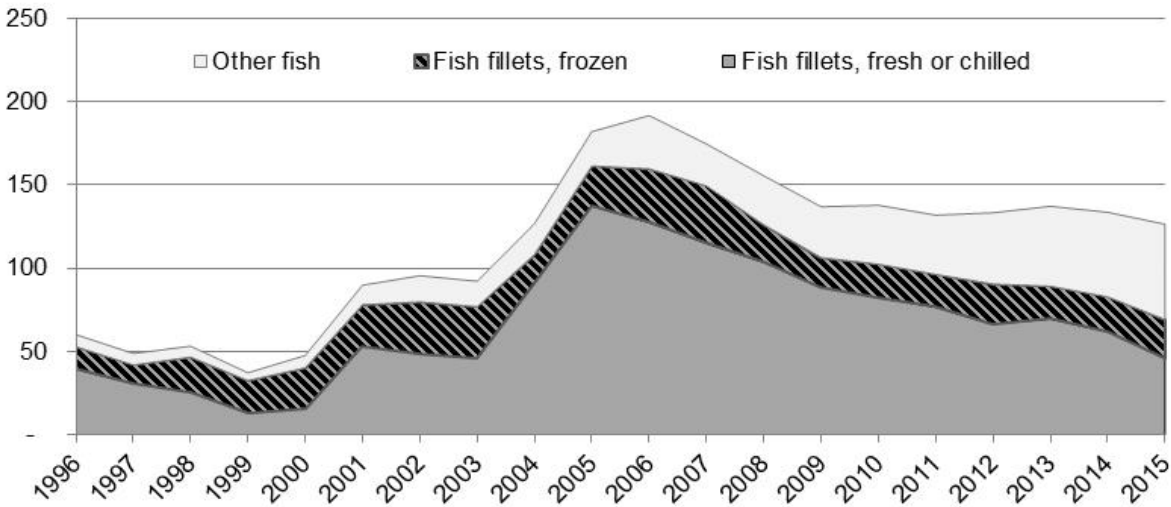
Note: Aquaculture is not presented by fish species.
Source: FAO FishStatJ

Starting in 1989 and following the example of Kenya, the export of high-value fish – mainly the fillets of Nile perch from Lake Victoria to high-income countries – became a driving factor for the development of the sector in Uganda. Chilled Nile perch fillets became one

¹⁶⁰ Average between 1961 and 2013; Average in other EAC-countries over that period: 5 kg/capital/year (FAO 2017).
¹⁶¹ The share of Nile perch in total fish consumption in the three Lake Victoria states is estimated to be 6.5% (FAO/IOC 2015).
¹⁶² Changes in total Ugandan catch quantities up to 2001 are less drastic than variations specific to Lake Victoria. In contrast to Lake Victoria, where the Nile perch was introduced in the 1950s and 1960s - but appeared notably in the catch statistics only from the 1980s onwards (Kolding et al. 2014) - Nile perch is endemic to Lake Albert and its introduction to Lake Kyoga increased fish yields already in the 1970s (Okaronon/Wadanya 1991; Kirema-Mukasa/Reynolds 1991).
¹⁶³ In addition to captured fish, the development of aquaculture has been supported and quantities from aquaculture have increased to more than 100,000 tons per year.

of the most valuable export products of Uganda, contributing up to two thirds of value of total fish exports and almost 20% of total exports (Figure 33).¹⁶⁴ The major export destination for these products has been the EU.¹⁶⁵ Consequently, repeated bans of chilled fish and fish products from several EU member states between 1997 and 2000 due to sanitary concerns reduced chilled fish exports from Uganda and the other Lake Victoria states by up to 50%. This also caused closures of processing factories and employee layoffs (Ponte 2005). However, the bans led to a streamlining of regulatory and inspection systems that enabled fish processors to fulfill the comprehensive sanitary regulations set by the EU. Whitfield et al. (2015) attribute the successful revitalization of the chilled fish export sector to a productive cooperation between the Ugandan Department of Fisheries Resources as the competent authority, other governmental organizations and actors in the fish-processing value chain (see also Ponte 2005; Kjaer et al. 2012a; Kjaer et al. 2012b).¹⁶⁶

Figure 33: Value of Fish Exports Uganda, by type (million USD)



Source: UN Comtrade 2017

With the renewed access to the EU market, exports of chilled Nile perch fillets expanded significantly from 2000 to a peak in 2005 in value as well as in quantity (see also Figure 33). However, the combination of investments into processing facilities and increased fishing efforts (by number of fishers, fishing boats, fishing gear) created over-capitalization and signs for over-fishing of Nile perch stocks in Lake Victoria (Mkumbo/Marshall 2015; FAO/IOC 2015). Hence, quantities of Nile perch caught and exported have declined since then.

Despite the simultaneous increase in the quantity of fish catches and prices for all fish species (NaFIRRI 2016a), the fishery sector has stagnated in real terms. In 2015, the contribution to total GDP declined to 1.6% and 4.9% of the agricultural sector GDP compared to 1.8% and 11.3%, respectively, in 2007 (UBOS 2012, 2016). Thus, decreasing catches of high-value Nile perch and tilapia had a significant impact on the overall performance of the sector.

¹⁶⁴ With frozen Nile perch fillets, the share increases up to 90 percent of total fish exports (UN Comtrade). This total share and the share in total exports is however declining since 2005.

¹⁶⁵ Initially, the Netherlands and Belgium have been major export destination due to the direct flight connection with Uganda. In 2015, eleven EU member states imported chilled and/or frozen fish fillets from Uganda (UN Comtrade).

¹⁶⁶ The Nile perch value chain in Uganda is often described as a unique case as Uganda established itself as major exporter of fish from the Lake Victoria Basin.

The employment effects in the fishery sector are nevertheless strong. The fisheries on Lake Victoria and other lakes in Uganda are classified as open access artisanal fisheries. Fishing is undertaken from wooden boats with a crew of two to four fishers, largely employed by fishing vessel owners.¹⁶⁷ With the boom in the Nile perch fishery, a large number of boat-owners has been attracted. Between 2000 and 2014, the number of fishing vessels on Ugandan waters on Lake Victoria increased from 15,544 to 28,243. Consequently, the number of fishers, mostly employed as crew members, increased significantly to more than 64,000 in 2014 and created strong land-to-lake migration within Uganda (NaFIRRI 2016b). Throughout Uganda approximately 100,000 artisanal fishers are active. Based on the ratio of 2.5 workers in the pre- and post-harvest sectors to each fisher, the sector provides income for up to 250,000 people in Uganda.¹⁶⁸ The estimated number of workers in processing facilities was around 5,500 in 2014, but might be currently lower due to further shut-downs and underutilization of processing facilities. Women are largely involved in the post-harvest sector and make up 80% of the artisanal processing labor force. Around 40% of the workforce in fresh market retailers, in processing factories and in fish maw processing are women (FAO/IOC 2015).

In general, the fishery sector is characterized by a large number of small-scale operators mainly involved in fishing as well as local trading, processing and distribution.¹⁶⁹ Only a limited number of actors are involved in industrial processing, mainly for the export of Nile Perch fillets. Yet, all parts of the fish value chain are highly commercialized as trading and processing schemes for all three major fish species (Nile perch, Nile tilapia, Mukene) are well-established (Nunan 2014). However, there are major differences in participation and structure of the value chain of industrial-grade fish (mostly Nile perch and some Tilapia for exports and local consumption) and for other fish for domestic or regional consumption.

As indicated above, all fishing is largely based on wooden boats operated by crews of two to four fishers using simple fishing gear, which leads to fishing activities as being characterized as artisanal (Ponte 2005). In addition, smaller boats and illegal beach seining are used to capture fish. A large part of fishermen is employed by boat-owners as indicated by the fact that the number of fishers exceeds the number of fishing vessel on Lake Victoria by a factor of 2.5 (NaFIRRI 2016b). The fishing community is however heterogeneous with regard to boat-ownership, motorized and paddled boats, location (island/shore), fishing gear and fish species targeted.

Nile perch for exports, which is typically caught in open waters, often requires the collection of fresh whole Nile perch from different vessels and islands and their transport in ice to approved public or private landing sites along the Lake Victoria shore. Currently 20 of more than 560 landing sites fulfill sanitary EU requirement and are continuously controlled by inspectors of the competent authorities.¹⁷⁰ From these gazetted landing sites, Nile perch is sold to factory agents or independent traders and transported on insulated trucks to the processing factories that are located around Lake Victoria. Fish rejects by industrial processors are sold on the local market and to artisanal processors.

Industrial processing of Nile Perch is done by a limited number of specialized processors, who are either locally owned or owned by Kenyan companies and employ local workers.

¹⁶⁷ Former subsistence fishing is replaced almost entirely (Fulgencio 2009; NaFIRRI 2012).

¹⁶⁸ For the whole Lake Victoria region, estimations of direct employment in the fishery sector account to 700,000 people and therefore indirectly income for 2 million people (Hammerle et al. 2010; Seeku/Esemu, 2014; Kjaer et al. 2012a)

¹⁶⁹ Various studies and reports have been conducted that describe the fishery sector in Uganda or Lake Victoria and here specifically the Nile perch value chain (Nyombi, K. 2004; Ponte 2005; Kjaer et al. 2012a; 2012b, etc.).

¹⁷⁰ Transport boats, landing sites and further transport vehicle to the processing factories are already part of the DG SANCO inspections (EC 2011).

The high-value products from Nile perch are the fillets for exports to the EU, the Middle East and other high-income countries and the fish maws which are mainly exported to the Asian market. All by-products are used domestically.¹⁷¹ Export products are either air-freighted from Entebbe International airport or loaded in temperature-controlled containers and shipped from ports in Kenya (Ponte 2005). Processors have established links to international importers. Importers usually arrange logistics from the airport/port to the international markets and subsequent sales to supermarkets or fish mongers (Pollard 2008).

On the other hand, fish for local consumption – Mukene, Tilapia and undersized Nile perch – is typically sold at one of the more than 560 landing sites to local traders. Tilapia and Nile perch can either be sold fresh to fish mongers or prepared (cooked or fried) in nearby markets. Alternatively, Tilapia and Nile perch can be smoked and sun-dried for local consumption or exports mostly to neighboring countries. The small and low-value Mukene fish is typically dried and then either eaten as a whole or used for fish meal production for human consumption and animal feeds (Kabahenda/Hüsken 2009). In all these cases, fish and fish products go through a series of local traders, agents and artisanal processors (Golub/Varma 2014). In recent years, the production of Tilapia fillets for the local food service sector has attracted industrial production.

Since 2000, the quantity and composition of fish catches has changed drastically with Nile perch landings, exports and processing facilities having declined significantly as discussed above. The major concern for processing companies and exporters relates to the required slot size of 50 to 85 cm for Nile perch to be processed and exported (Njiru et al. 2010, Mkumbo/Marshall 2015). The minimum size was set as a private sector initiative by the Uganda Fish Processors and Exporters Association (UFPEA) in 2007 to protect the juvenile and spawning stocks of Nile perch. This requirements comes from international buyers as a certain fillet size facilitates distribution and processing and avoids competition with smaller fillets, for instance from cheaper pangasius and catfish. Indeed, the proportion of Nile perch larger than 50 cm declined significantly from around 65% between 1984 and 2004 to 15% in 2011 (Mkumbo/Marshall 2015). The boom-bust cycle in Nile perch fishing is also reflected in the number of factories. Between 2000 and 2005 the number of Nile perch processing factories increased from 9 to 18 in 2007 (Fulgencio 2009). In early 2017, only 7 processing facilities are open and operate at a capacity utilization rate of 20 to 30%, according to UFPEA.

Most stakeholders and researchers attribute this development in Nile perch stocks and catches to overfishing (Turyaheebwa 2014). In particular, the use of illegal fishing gear (which also targets juveniles and immature Nile perch and tilapia) and weak enforcement of regulations and the general open access to fish resources are criticized (FAO/IOC 2015; Kabahenda/Hüsken 2009). Following this line of argumentation, it is the illegal fishing of immature fish and the increased fishing efforts that reduced the stock biomass of Nile perch and Tilapia below the safe biological limit. The problem is however that poverty and dependency on daily fish catches for living as well as the high demand for fish for local and regional consumption are major reasons for illegal fishing activities that will remain relevant (NaFIRRI 2012). With increasing prices for all fish species (NaFIRRI 2016a) and the potential of high-value trade with fish maws illegal fishing of juvenile Nile perch remains a profitable business (FAO/IOC 2015).¹⁷² Moreover, the issue of overfishing has been disputed by Kolding et al. (2008; 2014) who argued that environmental bottom-up changes in

¹⁷¹ By-products from Nile perch processing include fish frames, heads, skins, oil and fillet trimmings (Kabahenda/Hüsken, 2009)

¹⁷² Since 2010, the export value of dried and smoked fish increased from USD 10 million to USD 40 million in 2014 with China as main destination (UN Comtrade). Regional trade might not be accounted for correctly in the official trade data however.

water quality due to human intervention, particularly increased housing and agriculture along the waterbodies are the main threat to declining biomass.

This discussion on the causes of the decline of Nile perch exports has important implications for the future fishery management in Uganda and the Lake Victoria region. Policies in the fishery sector necessarily pursue multiple objectives and the obligation of fisheries management is therefore to balance these objectives (Nunan 2014). Approaches in fishery management can be classified in wealth-based and welfare-based, which emphasizes different objectives. On the one hand, *wealth-based fisheries management* focuses on economic efficiency by capturing the wealth of fish resources via managed access to the resource. This approach also includes taxation of formal chain actors which contributes to the further development of the whole sector (Cunningham et al. 2009). On the other hand, *welfare-based fisheries management* highlights the employment and income provision for resource-poor households and includes health, education and gender issues (Béné et al. 2010). Both approaches are not mutually exclusive. The former however focuses on the interests of high value added fish exports whereas the latter focuses on artisanal fishing activities that also include production for local and regional markets.

Fishery policies in Uganda and for the Lake Victoria generally have included elements of both approaches (Nunan 2014).¹⁷³ However, a focus has been put on a wealth-based management approach regarding the Nile Perch value chain. Wealth created by the export of high-value Nile perch fillets should be preserved and maximize by limiting the access to the fishery resources and control of illegal fishing. For instance, the EU co-funded the Nile Perch Fishery Management Plan (NPFMP II) for Lake Victoria 2015-2019 (FAO/IOC 2015). The plan aims for rebuilding the Nile perch biomass and increasing wealth generation in fishing and post-harvest processing (artisanal and industrial) via measures to control access and fishing activities. While variables such as catches, turnover and budget revenues are expected to increase by up to 50%, total employment is expected to decline by 10% due to the limited access to fish resources. A social component of NPFMP II includes the additional goal to improve wealth sharing to benefit local communities. Nevertheless, the Nile perch value chain is described as “business-oriented fishery” (ibid.: 24) prioritizing profit seeking commercial actors. Most importantly, the earlier community-based arrangements and regulation are described as “no longer valid” in this approach (ibid.).

The community-based arrangements are part of the general (not species specific) fishery management of Lake Victoria and include the involvement of local stakeholders via so called Beach Management Units (BMUs) and elected Landing Site Management Committees.¹⁷⁴ BMUs are supposed to take over various functions including registration of fishers and vessels as well as the implementation of measures against illegal fishing (e.g. control of mesh size used to catch fish and actual size of the catch itself). Despite the wide-reaching competences, the enforcement of the regulations is weak and the current structure and inefficiency of BMUs were widely criticized (Njiru et al. 2009). Kolding et al. (2014) relate

¹⁷³ Responsibility for fisheries in Uganda rests with the Ministry of Agriculture, Animal Industry and Fisheries and its Department of Fishery Resources. In the National Fisheries Plan of 2004 aims and objectives for the national policies include the sustainable exploitation of fishery resources and the prohibition of illegal fishing practices. The Department of Fishery Resources is also the competent authority responsible for monitoring the sector with regard to quality and sanitary requirements for international trade and local consumption. Given the shared waterbody of Lake Victoria, the common Lake Victoria Fisheries Organization (LVFO) was formed in 1997 which combines efforts of ministries, research institutes as well as fishing communities and processing industry of Kenya, Tanzania and Uganda. The organization aims for coordinating and co-managing fisheries and aquaculture resources and facilitates fishery research. LVFO is largely involved in donor-funded projects (Nunan 2014), for instance the Nile Perch Fishery Management Plan for Lake Victoria (NPFMP 1 and 2).

¹⁷⁴ Committees elected in each BMU comprise local boat owners (30%), crew (30%), fish traders (10%) and other stakeholders such as fish processors or boat builders (30%) and require the inclusion of women (Golub/Varma 2014; Nunan 2014).

the weak performance of BMUs to the different perceptions on their role. While fishing communities see BMUs as fora to solve day-to-day problems, the national management institutions perceive BMUs as implementation tools for centrally decided harmonized regulations and largely exclude local communities from co-determining fishery objectives. In late 2015, President Museveni ordered the suspension of the BMUs in Uganda and transferred the control of illegal fishing activities to a military task force which is however also not seen as effective and efficient (Muzoora 2016).

On the whole, a wealth-based management approach can be desirable. In the case of Uganda, a revitalized Nile perch sector can generate export earnings, employment, investment and tax income in the context of developing a high value and partly industrial sector. However, as Béné (2010) and Nunan (2014) underline, there are necessary conditions that need to be in place before a wealth-based approach can be considered. For the mixed and small-scale fishery-related activities that are not linked to high value export sectors, this implies that they are either integrated into the export sector which would require support and offering them a higher and/or more sustainable income compared to domestic and regional market focused fishing or that alternative employment opportunities are available when employment declines due to limited access (Whitfield et al. 2015).¹⁷⁵ Both strategies are however costly particularly in the short term and require large efforts. This questions a solely wealth-based approach. Instead, it might be preferable effectively link the two approaches based on wealth and welfare and find a way to develop both types of fish sectors next to each other. Clearly, such an approach also sets limits to the export growth potential of high value fish.

5.5.3. Impact of the EPA

The EAC-EPA includes comprehensive chapters on cooperation in fisheries trade and development similar to the ESA-EPA. As Kenya, Tanzania and Uganda initially joined the ESA-EPA negotiations, the provisions on fisheries in the ESA-EPA were almost entirely taken over by the EAC-EPA (Campling 2008). With the vital interest of Kenya, Tanzania and Uganda on inland fisheries the initial ESA-EPA provisions have been also specified for maritime and inland fisheries and include the development of aquaculture.¹⁷⁶

With regard to tariffs on fish products originating in the EAC countries, the status-quo of DFQF market access to the EU is consolidated. This is most important for the case of Kenya as a non-LDC country which would be affected by GSP-tariffs that amount to almost 7% on fish products on average. This ranges from zero tariffs for frozen salmon to 14.5% for fresh flat fish. Fresh Nile Perch and Tilapia fillets would face GSP tariffs of 5.5%. LDC countries such as Uganda are not directly affected given their access to EBA. Kenya would however be affected by a drop back to GSP preference. Most importantly, the continued and secure DFQF market access is a factor for future investment decisions, for instance with regard to the further development of aquaculture in the region.

On the import side, 134 of 189 tariff lines (CN-8) are liberalized and reduced from 25% to zero over 25 years. This concerns roughly all types of fish products (chilled, frozen, smoked, dried). The major exceptions are fillets (chilled or frozen, HS 0304), various smoked or dried fish products (HS 0305) and all further processed food production (HS 1604). In the case of Uganda, the main export goods (chilled and frozen fillets for high-income countries and smoked and dried products for regional markets) are excluded from liberalization. Uganda is currently importing minimal quantities of fish from the EU; it mostly

¹⁷⁵ Reduced employment includes fishers and workers in post-harvest activities.

¹⁷⁶ Part III of the EAC-EPA (Articles 51 to 56) includes general scope and objectives; Title IV of Part V (Articles 87 to 89) identifies the detailed areas of cooperation.

imports smoked and dried fish from Kenya and Tanzania. Import liberalization, in particular on frozen, low-value fish which is an important export good by the EU to several SSA countries (see Figure 30) might however be relevant when fish supply in Uganda might fall short in the future. Currently, Kenya is the only EAC member state that has a negative trade balance with the EU in fish products (Eurostat Data).

Rules of Origin on maritime fisheries include various specific regulations compared to inland fisheries, for example crew requirements, vessel ownership or leasing/chartering of fishing vessels (for more information on Rules of Origin for fish in the EPAs, see Campling 2008). However, captures from inland fishery can potentially be traded and processed regionally before exported to the EU. Thus, the *de minimis* provision of 15% for fresh or frozen fish in the manufacture of fish products is of relevance if regional fish processing value chains for instance for chilled fillets are established. Campling (2008) sees the 15% rule of non-originating fish as restrictive if interpreted strictly. In addition, preparations of fish (HS chapter 16) require fish inputs (HS chapter 3) that are wholly obtained. Here diagonal RoO are an important provision of the EAC-EPA.

Potential barriers to trade in global fish value chains are SPS and TBT regulations. In particular SPS regulations require a complex monitoring, control and surveillance (MCS) system throughout the value chain. Currently, Uganda is one out of nine LDC countries with an approval by the EU for exports of fish products. The successful revitalization of the Nile perch export sector in the early 2000s provides a positive example for cooperation on SPS issues between EU and Ugandan regulatory institutions (mainly the Ugandan Department of Fishery Resources) (Golub/Varma 2014; Whitfield et al. 2015). Continued support to ensure market access will however be required. The EAC-EPA includes SPS related provisions in the areas of cooperation in Article 89, for instance the promotion of MCS system in Article 89(d)(i) or the introduction of certification schemes in Article 89(a)(ii).

Development cooperation will be important to use the potential of export growth through the EAC-EPA but to also take into account its limitations. In the general objectives for development cooperation, “sustainable development and management of the fisheries sector” (EAC-EPA Article 51) and the consideration of economic, environmental and social impacts are underlined (EAC-EPA Article 51 and 52). The specified areas of cooperation for inland fisheries and aquaculture in Article 89 range from capacity building and export market development to infrastructure and environmental and stock conservation as well as socioeconomic and poverty alleviation measures including improved gender equality. Thus, the holistic needs of the fishery sector are included in the EAC-EAP by listing a multitude of aims and objectives for potential cooperation. Such an approach is crucial given the sectors’ important role in food security, income and employment in addition to generating export earnings.

An important field of development cooperation is the promotion of aquaculture. As indicated above, aquaculture production started in the early 2000s and quantities of harvested fish has reached 100,000 tons a year. According to the National Fish Development Plan, capacities should be increased to 300,000 tons by 2020. The additional quantities can be an important source for increasing domestic demand and for export earnings (Mbowe et al. 2016). The further development of aquaculture requires investments, know-how and a regulatory framework. Importantly, the infrastructure for supply with quality seed (fingerlings) and feed is a necessary condition. As Nile Perch is not suitable for aquaculture, the development of an aquaculture export value chain based on other fish species (for instance Tilapia or catfish) requires additional skills in product development and branding along with know-how on SPS and TBT regulations. The EAC-EPA includes various points of cooperation, for instance on the promotion of joint ventures for financing aquaculture

projects and the support for Research and Development (EAC-EPA Article 89). Similar to other debates on fishery management policies, potential effects on poverty alleviation and food security through aquaculture depend on the small-scale farming contexts and potentially involve conflicts and risks (displacement of employment, conflicts on property rights in public waters, ecological risks with the introduction of foreign fish species) (NaFIRRI 2012; Béné et al. 2016).

Referring back to the discussion on approaches to fisheries management, the main challenge in this field is the alignment and prioritization of objectives and suitable measures for implementation. As the case of Nile perch shows, advancing fisheries exports might be competing with other objectives such as employment and income creation or nutritional feeds. These diverging interests have to be taken into account in any fisheries related projects of the government and donors and also may lead to limiting the potential for export growth as pointed out above. Hence, local participation of the diverse actors along the different fishery value chains focused on high income, regional and domestic markets is necessary for a sustainable and inclusive development of the sector.

5.5.4. Conclusions

The drastic changes in the fisheries sector in Uganda and Lake Victoria had important environmental (variations in fish stocks, overfishing, pollution), social (land-to-lake migration, employment, food safety) and economic (export earnings, industrial production) effects. Consequently, the design of fisheries management needs to take a holistic approach that considers the fishers' rights to food and decent work (Allison et al. 2012). In the case of the Nile perch value chain, largely wealth-based approaches to fishery management have been advanced in Uganda (see NPFMP II) while the potential effects on fishery communities have been considered only to a limited degree. Particularly considering the potentially weak contribution of international fish trade to sustainable development and poverty alleviation (Fulgencio 2009; Béné et al. 2010), policies need to take into account the potential negative social and environmental effects and costs associated with the promotion of a fish export value chain. This will require a mixed approach focusing on wealth-based and welfare-based fishery management approaches.

For the Ugandan case, a major constraint of a wealth based approach is the difficult enforcement of regulations given the importance of fisheries activities for livelihoods and the alternative sales options in domestic and regional markets. This will only be solved by creating incentives for artisanal fishers to fish Nile perch and Tilapia only above the minimum size which would require the inclusion of artisanal fishers into export value chains and sharing of wealth along these chains. Redistribution of rents and participation in negotiations processes could be supported by the strengthening of fisher associations or the self-organization of fishers in cooperatives. Another option would be the provision of alternative economic activities for fishers which is however costly due to the necessary investment in education and infrastructure. Anyways, the interests of artisanal fishers focusing on high-income, regional and domestic markets need to be taken into account

The EAC-EPA, particularly through development cooperation should take these conclusions into account. Only then the potential of secured market access to the EU can be used for export development as well as sustainable development and fishers' livelihoods. Given the partial import liberalization in the region, the development of sufficient national and regional supply of fish, for instance via the promotion of sustainable aquaculture, is a short to medium-term goal for the sector. Such a sustainable and regional approach might however mean limiting export growth potentials to the advantage of small-scale artisanal fishery welfare and regional food security.

6. CONCLUSIONS AND POLICY RECOMMENDATIONS

In the concluding chapter, we first (i) provide a summary analysis of the key economic impacts of the EPA agreements, then (ii) discuss likely adjustment costs, and subsequently (iii) outline the challenges related to promoting productive development, particularly in export-oriented sectors and value chains. Upon that basis we then (iv) proceed to highlight necessary policies with respect to trade-related capacity building within the framework of the EU's aid for trade agenda, and (v) present a proposal for an effective monitoring process for EPA implementation. The last section concludes with key take away messages.

6.1. Expected Economic Impacts

The negotiations of regional EPA agreements with SADC, EAC and ECOWAS turned out to last much longer than expected. Now the negotiations have been concluded, although the ratification of the agreements has only taken place in SADC. Ratification is still pending in the cases of EAC and ECOWAS. The key change introduced by these agreements is that they require reciprocal tariff liberalization instead of unilateral trade preferences in the EU market as under the previous Lomé regime. Hence, market opening will be asymmetrical, with African partner countries unilaterally reducing their import tariffs, while basically no change on the export side due to the already existing DFQF market access to the EU. African countries will be required to liberalize up to 80% of their trade with the EU over an implementation period of 10 years (SADC), 20 years (ECOWAS) and 25 years (EAC), respectively. This will in particular entail substantial tariff reductions for industrial goods and to a lesser extent for agricultural products.

In addition to tariff liberalization, the policy space for governments will be further constrained with respect to future adjustments of their trade relations with the EU (standstill clause), the negotiation of future trade agreements with emerging economies (MFN clause) and the application of industrial policies (e.g. export taxes, protectionist measures, local content rules). The safeguard measures of the EPAs are comparatively extensive; however, it is questionable in how far the nonetheless more limited room for manoeuvre will be sufficient to protect the developmental needs of EPA countries. Many EPA countries further lack the institutional capacities to make effective use of safeguard measures, highlighting the importance of development cooperation in this regard.

In exchange, the EU is guaranteeing full and secured market access for African products and allows for more flexible RoOs. Recognizing the need for support in the implementation of the agreements, the EC pledged financial support via its development cooperation programs, in particular via the EDF. For ECOWAS, a special instrument (PAPED) was created with EUR 6.5 billion in financial support for the period 2014-2020. Such special instruments are not yet implemented for the other two regions.

On the basis of model simulations performed with the ÖFSE Global Trade Model, a structuralist CGE-model, our overall assessment is that the implementation of the EPAs will lead to losses in terms of output and employment for the African partners. The size of the effects depends basically on the importance of the EU as a trading partner. Thus, given their rather intensive trade relations with the EU, ECOWAS countries will be hit hardest, with aggregate losses amounting to roughly 0.61% of regional GDP. Effects for EAC and SADC are smaller, amounting to some 0.42% and 0.20%, respectively. The results on a regional level are largely determined by the dominant economies in the bloc (Nigeria, Kenya, South Africa) and single countries may face changes above or below the regional average, for instance Senegal with losses of 1.77% or Botswana with losses of 0.07%.

Most importantly, all countries participating in an EPA show negative effects due to the asymmetric liberalization. These effects are mainly driven by increased imports from the EU due to tariff liberalization, which though positive for household demand and certain inputs into domestic production, will overall negatively affect domestic production, with the latter effect prevailing over the former.

On a sectoral level, industrial sectors such as machinery, chemicals and other manufacturing will be hit hardest in comparative terms, with concomitant negative effects on employment. These losses in manufacturing industries are particularly painful given their relative high wages and the limited industrial transformation in these countries. Due to the labor intensity of production, also employment losses in agriculture and services will be sizable. On the other hand, in Ghana specific sectors might also slightly profit from increased exports, including commodities and foodstuffs exports. For the other two regions, such potential export increases are not visible.

Macroeconomic balances, that is the private balance, public balance and current account balance, will also be affected by trade liberalization. Typically, our results point to a deterioration of the current account, i.e. a reduction of net exports driven through increased imports, and of the public balance driven by a loss in tariff revenues. Given the marked dependence of public revenues on tariff income in African countries, the change in the public balance is of particular importance, when considering the issue of adjustment costs (see below). However, the impacts vary between the three regions and countries assessed, given their different dependence on tariff income in their overall public income. The challenge for the public budget is not only the replacement of tariff income by other sources, but to mobilize additional funds for export sector promotion in order to benefit from the EPAs in the longer run.

Finally, intra-regional trade within the three country groupings will also be affected by the EPAs. Unsurprisingly, our results hint at small trade diversion effects within EPA regional groupings and between EPA partners and third parties, both in Africa and the RoW. Hence, trade diversion of intra-regional trade through EU imports reduces the overall export performance of the African partner countries.

Given these results, it will be tantamount for African EPA countries to exploit the flexibilities built into the agreements during the implementation phase. This will in particular (i) necessitate a strategy to capacitate the public sector with the skills required to technically implement the treaty obligations and use the safeguards which is particularly problematic in Mozambique compared to Ghana and Uganda, (ii) devise a strategy of how to cope with adjustment costs, in particular due to losses in public revenues and pressure on some important import sectors, mostly relevant in ECOWAS countries (iii) strengthen capacities in the field of industrial policy in order to pro-actively foster the productive development of the economies of the African partners, both in terms of identifying and supporting export-oriented sectors, setting up linkages and cooperative relations between domestic and foreign investors and promoting integration into global and regional value chains with a view to economic upgrading, and (iv) design an effective monitoring process of EPA implementation within the framework provided by the agreements to be able to react to negative impacts and use potentials. To these challenges we will now turn.

6.2. Coping with Adjustment Costs

Every FTA triggers changes in the structure of an economy, where certain sectors expand because of increased exports and production, while other sectors shrink due to import competition. This produces a whole series of economic, social and environmental repercussions at the national, regional and local level, which are however beyond the scope of this study. In the following we will focus on employment and public income, which are of particular relevance for the development process of the African partner countries. Employment provides the primary source of income for workers, thus changes to employment will have social effects upon the afflicted individuals and their families. Depending on the types of jobs lost this might have important impacts on poverty levels. The public sector on the other hand provides infrastructural as well as social, health and education services. Any significant change to public income due to e.g. a loss in tariff revenues will thus have repercussions on public budgets, and necessitate either a compensating increase of other public revenues or a reduction in public expenditures. Both measures will affect particular strata of the population either via increased tax burdens or cuts in the provision of certain services. It is well-known that cuts in state expenditure disproportionately affect the poorer strata of the population (Barro/Lee 2006; Oberdabernig 2013).

Employment

Employment will be affected, both in terms of sectoral employment changes but also on the aggregate level, in the likely case that not all people that lost their job due to trade liberalization will be able to find a new one. Our estimations suggest that overall employment changes due to EPA implementation will be negative, but small, amounting to 0.02-0.10% for SADC, 0.05-0.15% for EAC, and to 0.1-0.3% for ECOWAS. In terms of sectors affected our results indicate that across all three regions in particular the manufacturing sectors (machinery, other manufacturing) and agriculture will shed jobs.

Though the aggregate losses are comparatively small; the percentage numbers would be equivalent to 18,000 jobs in SADC, 85,000 jobs in EAC, and up to 210,000 jobs in ECOWAS. For Mozambique, Uganda and Ghana, the related numbers would be 7,000, 13,000 and 20,000, respectively. These employment losses specifically occur in industry sectors, as trade liberalization affects mostly these sectors. Since employment statistics in Africa are notoriously lacking in quality, and typically cover formal employment in urban areas only, these numbers must be interpreted carefully. They should be interpreted to show orders of magnitude. However, given the quality of jobs in the formal sector and the importance of the formal sector for productive development, any loss of jobs in this sector has significant social and economic repercussions. It will likely affect workers and members of the urban lower middle classes with lower to medium-level qualifications. Given that even in the formal sector of the economy, unemployment benefits in SSA countries are not more than rudimentary (Molefe 2011), and active labor market policies (e.g. re-qualification trainings) hardly exist, the economic and social situation of the affected members of urban middle-classes might deteriorate rather quickly.

Public sector income

It is well-known that tariff revenues are an important source for public budgets in most SSA-countries. This is particularly true for West Africa, where depending on the country, tariffs account for 10-30% of public income. Since tariff reductions foreseen in the EPAs are substantial, the countries will have to cope with public sector income declines during the implementation phase of the agreements.

Our model simulations indicate a deterioration of the public sector balances for SADC, EAC and ECOWAS of 0.16%, 0.34% and 0.52%, respectively. However, these effects will materialize only after the full implementation of the EPAs. In addition, they cover general equilibrium effects, i.e. incorporate comprehensive feedback effects throughout the economy on the public sector balance, which include for instance increased VAT revenues due to increased consumption of imported goods.

An indication for the magnitude of foregone tariff revenues can be given by relating the regional EPA liberalization schedules to recent import values. For the ECOWAS countries, the reduction of the 5% tariff on imports in the category 'A5' from the 5th year after the start of the agreement onwards, is equivalent to tariff revenues of USD 615 million p.a. between the year 5 to the end of the of the implementation period. Including all other tariff liberalization steps, the revenue losses increase to USD 1.74 billion p.a. at the end of the implementation period (see Table 50). For Ghana, the respective numbers are USD 69 million p.a., and USD 226 million p.a. (see Table 51). Under the assumption that the agreement enters into force in 2018, these tariff income losses would only start to materialize from 2023 onwards and extend until the year 2038.

Reflecting the smaller weight of both tariff incomes for public budgets and EU imports as a share of total imports, for the EAC region tariff income losses would start at USD 20 million p.a. in year 7 of implementation and rise to USD 154 million p.a. at the end of the implementation period. For Uganda, the respective numbers are USD 4 million p.a. and USD 28 million p.a.

Thus, in all three cases, tariff income losses would only kick-in after the current programming period of EU development cooperation instruments, which ends in 2020. The tariff income losses seem most problematic in the case of ECOWAS, which would call for special financial assistance. Under PAPED Axis 4 – adjustment costs and other trade related needs, a total budget of EUR 880 million has been committed for the whole period 2014-2020, which amounts to EUR 126 million p.a. (Rampa n.d.).

Table 50: ECOWAS – Tariff Revenue Loss (c.p.) (million USD)

	From year	T+5	T+10	T+15	T+20
Classification					
A5		615.5	615.5	615.5	615.5
B5			6.0	6.0	6.0
C5			7.3	7.3	7.3
B10			424.8	849.6	849.6
C10			9.2	4.0	4.0
C20			15.2	192.4	256.5
Total		615.5	1,077.9	1,674.7	1,738.9
Relative to GDP		<i>0.1%</i>	<i>0.2%</i>	<i>0.3%</i>	<i>0.3%</i>

Note: based on trade volume 2012-2014 (UN Comtrade)

Source: own calculations

In the case of Ghana, the national indicative program provides for a total amount of EUR 323 million in financial support for the period up to 2020, of which EUR 75 million are dedicated to public sector support. Apparently, the special program on Trade Related Assistance and Quality Enabling (TRAQUE) was ended in 2016.

Thus, it would appear that EU budget support would have to be substantially increased in the period post-2020 in order to compensate for the expected revenue loss. Though the EC has pledged to offer financial support for fiscal adjustment (e.g. EAC-EPA Article 100; SADC-EPA Article 14), it remains to be seen whether that is a realistic perspective.

Table 51: Ghana – Tariff Revenue Loss (c.p.) (million USD)

	From year	T+5	T+10	T+15	T+20
Classification					
A5		68.9	68.9	68.9	68.9
B5			0.6	0.6	0.6
C5			1.0	1.0	1.0
B10			60.3	120.6	120.6
C10			2.0	4.0	4.0
C20			15.2	22.8	30.4
Total		69	148	218	226
Relative to GDP		0.2%	0.4%	0.5%	0.6%

Note: based on trade volume 2012-2014 (UN Comtrade)

Source: own calculations

Irrespective of additional EU budget support in the future, current financial assistance available under PAPED and other EDF programs should be directed towards strengthening the domestic tax base in ECOWAS countries – and to a lesser extent also in (non-LDC) SADC and EAC countries – in order to be eventually able to substitute tariff income losses by increasing contributions from other domestic revenue sources, in particular indirect and direct taxes. However, a broadening of the tax base will entail substantial reforms of the national tax collection systems, particularly with respect to levying income taxes on wages and profits. Recent research suggests that effective tax reforms are more difficult to achieve in democratic regimes, since in the face of fierce opposition politicians have little incentive to overcome political contestation from lower and middle income classes, whereas in authoritarian regimes tax reform has been more effective (Bastiaens/Rutra 2016). Hence, any eventual political reform process should be expected to be lengthy and burdensome. Nevertheless, in our view increased efforts towards domestic resource mobilization are without alternative, but need increased support from the EU even before the EPA implementation formally commences.

6.3. Promoting Productive Development in Export Sectors

It should not be expected that EPA economies will immediately benefit from the EPA agreements by increased exports. First, African partner countries had already DFQF market access to the EU market – under Cotonou and throughout the EPA negotiation process under MAR. LDCs would also get DFQF without the EPAs through EBA. However, the EPAs put this market access on a secure and long term basis which provides stability. For non-LDCs there are important tariff effects as without EPA they would fall back into GSP in which the EU sets reduced tariffs only for around two thirds of tariff lines. Namibia and Botswana as upper-middle income countries would even face MFN tariffs for exports to the EU. But as there is no change in export tariffs compared to the current market access regulation, no direct increase in exports can be expected. Other provisions determining market access such as most importantly RoO also differ in their impact on LDCs and non-LDCs as LDCs have already liberal RoO under EBA while there is an improvement for

non-LDCs. SPS and TBT standards which importantly determine market access in the EU will remain central in the EPAs.

Second, increasing exports depends not only on market access – as important as it is – but also on dynamics in specific GVCs through which the large majority of trade takes place today – UNCTAD (2013) estimates 80% – as well as on productive capacities in partner countries. The development of competitive export sectors is a major challenge in many African partner countries and requires pro-active industrial policies to support economic upgrading and diversification, and the development of related institutions that drive these policies. Challenges are manifold and include among other issues, capacity building at customs authorities, promotion of extension services in order to meet high EU SPS standards for agricultural and manufacturing exports, and development of market support services to be able to enter buyer relationships and sustain positions in GVCs.

GVC dynamics among sectors assessed in this study differ

The sectoral case studies in this study show the importance of specific sector and value chain dynamics in using the EPA-related market access potentials on the export side. Accessing export markets in the twenty-first century means entering GVCs. In addition to public standards, GVCs are governed by private standards and requirements of lead firms as well as their sourcing and investment strategies. These governance structures determine entry and upgrading possibilities in value chains and hence the positions, rewards and risks of firms in supplier countries. This has to be taken into account in policy formulation.

In the **textile and apparel GVC**, the outsourcing of many production-related activities of lead firms in this buyer-driven value chain has allowed the taking over of these functions by supplier firms in developing countries. However, suppliers must increasingly take over all functions related to production in addition to input sourcing, design understanding and transport and logistics as well as fulfil stringent requirements on price, quality, lead time and flexibility. This has made it very challenging for firms in African countries to enter GVCs as first tier suppliers. With the exception of Mauritius (and earlier South Africa), this has often only happened through FDI with very limited roles of locally-owned firms. This hampers the longer-term sustainability and potential for learning and broader structural transformation of these economies. Further, linkages to the large cotton sector in African countries are nearly non-existent given the lacking competitiveness of textile sectors in Africa and the global sourcing strategies of FDI firms and lead firms using their own Asian-based textile mills or global supplier networks.

In the traditional agriculture export sectors we assessed – **cocoa and coffee**, different sector dynamics and strategies of lead firms explain to an important extent the varied functional upgrading experiences to processing. In the cocoa sector, concerns about secured access to cocoa beans supply lead international processors to establish ‘origin grinding’ to build closer relationships to actors in producer countries and secure supply. This has allowed Ghana to develop cocoa processing (grinding) facilities that are dominated by international processors but also include some locally owned firms that process for the EU and regional markets. However, functional upgrading was largely confined to the grinding segment and not to the higher value chocolate manufacturing segment, which is still dominated by chocolate manufacturers in consumer countries with well-established manufacturing capacities, mixing cocoa from various origins. In the coffee sector such processing activities in producer countries are much more limited given roasters’ established processing hubs in consumer markets and their marketing and branding strategies that are based on blending coffee of different quality and origin. In the case of Uganda, the scope

for developing specialty coffees branded from a certain origin is even more limited given the dominance of the lower value Robusta coffee (in contrast to the higher value Arabica coffee).

The two non-traditional agriculture export sectors – **mango and fish** – specifically highlight the importance of quality standards and certification, as well as logistics and infrastructure requirements to ensure cold chain handling. In the mango sector, functional upgrading to cut and dried mangoes has been achieved in the context of a buyer-driven GVC with an increasing tendency to outsource low-value added activities to producer countries. However, the production of quality mangoes and GlobalG.A.P. certification continue to pose a crucial challenge for mango farmers. In the fish sector, demand for high-value fish and seafood products enabled some African countries to participate in GVCs if they fulfil the stringent requirements of international buyers (e.g. fillet size, taste, logistics). In addition, sanitary standards by importing countries and private actors are decisive for the participation in fish value chains and require comprehensive and costly monitoring, control and surveillance systems.

Local capabilities also matter for participation and upgrading in GVCs

These GVC dynamics and lead firm strategies however interact and constitute a dialectic relationship with local conditions. So, local conditions clearly also have a large impact on the possibilities to use the export potential of the EPAs. Specifically, in SSA LDCs local industrial and institutional capacities and capabilities on the firm side as well as the government side are often very restricted which limits entrepreneurial and policy response to the EPAs.

The limited development of local firms in the **apparel sector** of Lesotho and Swaziland is not only related to the high demands of lead firms but also related to having no entrepreneurial tradition and no specific support for local firms that addresses their constraints that vary from FDI firms' constraints. Local firms involvement has been much higher in Mauritius with a different local context and supportive industrial policies in the textile and apparel sector and also – albeit to a much lesser extent – in Madagascar. Linkages with foreign firms, particularly through subcontracting, played an important role in the development of local export firms.

The success of Ghana in establishing a **cocoa processing sector** was made possible because of changing lead firm strategies but was effectively exploited because it was supported, particularly by very supportive tax incentives and a discount on light beans for local processing. Given high electricity costs, grinding would not be competitive without the discount on light beans. Also the important role of COCOBOD as the key provider of all support services in the cocoa sector and as the sole seller to international buyers is of crucial importance, in particular in reducing – to a certain extent – asymmetric power relations in the cocoa value chain which gives Ghana a special role in the sector.

In the **coffee sector** in Uganda in contrast, UCDA is largely engaged in promoting production and export of coffee beans, while interventions in marketing and price stabilization as well as resources for strategies to develop processing in roasting and instant coffee production are limited. UCDA still provides important support but in a more liberalized context as in the cocoa sector in Ghana, which limits their role largely to extension services and quality assurance.

In the promotion of **non-traditional agricultural sectors**, donors have played an important role in many African countries, including in mango in Ghana and in fish in Uganda.

In the mango sector, various organizations and donor agencies have engaged in the promotion of mango exports since the late 1990s, particularly assisting farmers and other key actors to produce quality mangoes and increase the export share of their produce. In the fish sector in Uganda, donors are largely engaged in the promotion of fishery management and the establishment of sanitary standards with a focus on exports. If donor involvement is not linked to national development strategies, the risk exists to undermine a holistic approach regarding the economic, social and ecological needs of local actors.

Importance of support services and collaboration & linkages for learning

Challenges for local processing and manufacturing firms in all studied sectors include most importantly access to finance, access to skills and hence training and skill development institutes, and access to inputs and technology. This is besides more general infrastructure and business environment challenges that all – local and foreign – firms face. Incentivizing linkages between foreign and local firms could have an important role in learning and increasing productivity in agro-processing and manufacturing. Also linkages between local firms can be important for competitiveness and to allow for collective action. The flexibility of the EPAs to formulate policies in this direction should be used pro-actively. On the farmers' side, many challenges exist related to limited access to irrigation and hence weather-related dependencies as well as to inputs leading to low yields. Further knowledge on particularly pre- and post-harvest practices is limited. The provision of extension services is crucial as well as farmers' organization in collectives or other institutions to allow for collective action and efficiency. Such horizontal collaboration can increase productivity through economies of scale and interactive learning, facilitate access to support services and infrastructure, push upgrading of farmers and firms as well as increase bargaining power vis a vis buyers. This has been proven to a different extent to be specifically important in the coffee sector in Uganda and the mango sector in Ghana.

Promoting institutional capacities for industrial policies and upgrading

The creation or development of public institutions that can support industrial policies to tackle the above-mentioned challenges for farmers and local firms and ensure collective action on relevant issues as well as develop sector strategies and present the interests of sector stakeholders is crucial. Enterprise Mauritius and COCOBOD are particularly successful organizations in this regard. As such successful institutions show, the involvement and coordination of different actors along the value chain, and particularly the creation and strengthening of public and private coordination is important for sector development. Public-private dialogue and collaboration is a particularly necessary requisite for policies that cannot be defined ex-ante and need a continuous process and pragmatic assessments and experiments. Regarding the value chain, not only strictly sector-related actors should be included but also important input and service providers to ensure alignment along the chain. For the apparel sector, this includes firms in the apparel and the textile sector as well as important accessories and service providers and the cotton sector. For agriculture sectors, this includes actors involved in producing crops but also processors and related activities as well as input and service providers.

Fostering dialogue with the private sector and civil society, incl. vulnerable groups

In addition to public sector and private sector representatives, sector institutions should also include workers' and farmers' organizations to ensure broad representability and sustainable strategies and policies. Particularly the voice of vulnerable groups such as workers and small-scale farmers has to be present and strengthened and their interests in terms of wages, prices and working conditions taken into account. Thereby, the focus

should not only be on small-scale producers in agriculture and micro-firms but also on workers in larger firms. Further, a focus on vulnerable groups should not only attempt to supporting their existing activities but also on providing alternative economic activities through functional upgrading and diversification, which maybe a more promising path to improve incomes and livelihoods. Moreover, in export strategies not only the interests of the directly affected actors should be in the focus but also implications of export sector development on other groups in society. This is most prominently seen in the fish sector in Uganda where a policy approach solely focusing on export growth negatively affects the welfare of artisanal fishers, which focus on the domestic and regional markets. The interests of the latter have to be taken into account to make the sector strategy effective and sustainable; this may also mean to accept limits to the growth potential of exports for social and environmental reasons.

Regional integration for higher competitiveness and bargaining power

Regional integration in terms of both inputs supply and end markets can play an important role in upgrading and diversification. A regional perspective may be an important possibility to ease constraints and reach competitiveness given the size, capacities and capabilities of many, SSA LDCs. This has been particularly pointed out in the textile and apparel sector where regional integration could play a central role in making the SSA sector competitive and sustainable, reducing lead times and costs, capturing more value added and linkages in the region, and diversifying end markets abroad and within the region. In this context, different complementary advantages in the region could be leveraged and economies of scale, vertical integration and horizontal specialization could be promoted. Also in other sectors such as cocoa and coffee, regional integration and coordination could increase the bargaining power of producing countries – this potential is particularly large for the cocoa sector in Ghana and Côte d'Ivoire given that they jointly represent around 60% of global cocoa bean production. Also the EAC region has a certain joint role in global coffee exports.

Regional integration for enlarged markets and upgrading to processing

On the end market side, industrial policies often focus on traditional export markets, particularly in the EU. That is important given the relevance of the EU market and specifically the new potential in the context of the EPAs. However, a focus on export diversification and particularly on regional and domestic markets may be an important strategy to expand opportunities and reduce dependency. Particularly in certain agro-processing activities as well as manufacturing, the regional and also local market can be an important outlet in addition to exporting to the EU. Further, the domestic and regional markets tend to provide more possibilities for processing and functional upgrading to high value added activities, including branding and retailing. This can lead to interrelated learning channels as exporting to the EU may initiate learning processes that can be used to become more competitive and capture higher value-added in the local and regional market. This can be a very important benefit from EU exports, particularly given the very tight prices and strict quality and other requirements, which make earning a profit through EU exports difficult. Policies will need to face this emerging reality and thus be broadened to consider the potential offered by regional and domestic markets in addition to traditional high-income country markets.

EU development policies can support that potential of EPAs will be realized

The EPAs offer a potential but alone will not trigger the development of more locally embedded export sectors. This will require strategic and strong industrial policies at the national and regional level. Development cooperation in the context of the EPAs could play a crucial role in this regard. Hence, to address challenges of local firms, workers and farmers, build inclusive local institutions that support sector development, upgrading and linkages, and use the potential of regional value chains and markets to benefit from the export-related opportunities of the EPAs, EU development cooperation support, particularly via Aid for Trade programs, is required. This support should be sought for and used strategically to ensure a consistent portfolio of programs by different development cooperation actors. Hence, development cooperation in the area of productive capability building will continue to be important in order to support sector-specific policies and projects at the local, national and regional level to be able to exploit the export-side potential of the EPAs.

6.4. Trade Policy Capacity Building and the Role of Aid for Trade

Liberalizing trade as well as promoting export diversification put strong demands on state capacities. On the import side, customs authorities will be responsible for processing imports covering thousands of tariff lines with specific tariff rates and/or quotas. On the export side, certificates of origin, certifications with respect to technical standards and SPS regulations will have to be provided by government institutions and other mostly public entities like Chambers of Commerce and testing as well as inspection agencies. In addition, trade ministries will have to monitor the development of imports and exports and produce timely statistics and intelligence, which form the basis for effective-trade policy-making, for instance the use of anti-dumping measures or other safeguard measures. In terms of promoting export-oriented policies, government entities are responsible for providing a range of services, e.g. with regard to finance, extension services, and consultancy services with respect to technical and sanitary standards. In terms of promoting the participation in value chains and related upgrading strategies, even more demanding planning and industrial policy capacities are required from state agencies.

Thus, the swift and effective implementation of the EPAs as well as the timely management of the flexibilities and opportunities for expanded trade built into the agreements will put heavy demands on the technical capacities of the Africa partners. While certainly a challenge for all Africa partners, our research suggests that the aforementioned exigencies will be particularly difficult to shoulder for LDCs such as Mozambique, given low institutional capacities and severe financial constraints in the face of a multitude of challenges.

Since the mid-2000s the main vehicle for supporting developing countries with these tasks has been Aid for Trade (AfT). AfT is a generic concept, describing development assistance provided in support of partner countries' efforts to develop their capacity in trade in order to foster economic growth. Therefore, AfT has a broad scope, encompassing both aid helping beneficiaries formulate and implement trade policies and practice, i.e. "Trade Related Assistance" (categories 1, 2, and 6 in Box 1), and aid supporting to develop beneficiaries' wider economic capacity to trade, through in particular investments in infrastructure and productive sectors. This "wider AfT" includes categories 1, 3, 4, 5, and 6 (see Box 1).

Against this background, it is interesting to scrutinize the development and sectoral distribution, respectively, of AfT support to Africa over the last decade. While there has been a steady growth of AfT disbursements to Africa, reaching a record-level of USD 15.8 billion in 2013 (UNECA 2015), the bulk of AfT financing supports categories 3 and 4, i.e. trade infrastructure (transport and energy) and productive sectors (mainly agriculture, and to a

lesser extent banking and industry). Only some 3% of funds support trade policies and regulations (category 1), while disbursements for trade adjustment (category 5) are negligible. According to UNECA (2015), this sectoral composition has remained rather stable since the beginning of AfT. Unsurprisingly, with the EU being the largest AfT donor, the EU's AfT funding closely mimics this picture. 93% of disbursements in 2014 were channelled into infrastructure (mainly energy and transport) and productive capacity building (mainly agriculture, to a lesser extent banking and industry), only some 2% went into trade policies and regulation.

Box 1: Aid for Trade Categories

Category 1 – Trade policy and regulation: training, explaining rules and regulations.

Category 2* – Trade development: investment promotion, analysis and institutional support for trade, market analysis and development.

Category 3 – Trade related infrastructure: physical infrastructure including transport and storage, communications and energy generation and supply.

Category 4 – Building productive capacity: including trade development and productive sectors such as agriculture, forestry, fishing, industry, mineral resources and mining.

Category 5 – Trade related adjustment: contributions to government budget for implementation of recipients own trade reforms and adjustments to trade policy measures by other countries.

Category 6 – Other trade related needs: other trade related support identified as such by beneficiaries and not captured under the categories above.

Note: * In AfT statistics, category 2 is included as a sub-category of category 4
Source: EC 2016

For the ACP countries, 98% of EU funding was directed to trade infrastructure and productive development, and only 2% to trade policy and regulation (EC 2016e). This pattern can also be found with respect to the three EPA regions of SADC, EAC and ECOWAS. While AfT commitments for ECOWAS were highest, amounting to EUR 6.5 billion for the period 2006-2014, only 2% went into category 1, 52.5% into category 3 and 45.5% into category 4. For EAC, AfT commitments for the same period amounted to EUR 4.8 billion, again only 3% were dedicated to category 1, and 55% and 42% for categories 3 and 4, respectively. Finally, for SADC, of the total AfT commitments of EUR 2.8 billion, some 2%, 54% and 44% were destined for categories 1, 3 and 4, respectively. Not a single Euro was committed to categories 5 and 6 in all three regions (own calculations, based on EC 2016: 70, 72, 74).

Following the conclusion of the WTO trade facilitation agreement in December 2013, AfT disbursements for trade facilitation activities (a component of category 1) to Africa have strongly risen from roughly USD 10 million in 2006 to USD 260 million in 2013, accounting for some 1.6% of total AfD disbursements in 2013 (UNECA 2015: 18). Also the EU has increased its support for trade facilitation in the period 2010-2014, with a total of EUR 363 million in commitments to Sub-Saharan Africa (EC 2016: 29).

These data suggest that the emphasis of donors including the EU has been clearly put on supporting infrastructure and productive development in Africa. AfT disbursements in favour of the agricultural and manufacturing sectors in Africa have indeed increased, in per capita terms, from USD 1.85 and USD 0.41 on average in the period 2005-2008, to USD 2.75 and USD 0.50 in the period 2009-2011, respectively. This shows that there has been a focus on agriculture and not necessarily on diversification and structural transformation.

Whilst the upward trend for disbursements in manufacturing may be somewhat encouraging, it is questionable whether USD 0.50 per person per year adequately reflects Africa's declared quest for structural transformation and industrialization and hence is aligned to the priorities defined by African policymakers (UNECA 2013: 30ff).

In terms of supporting government capacities, the priority has been directed towards tackling customs procedures via trade facilitation programs, as a recent OECD/WTO monitoring exercise has shown (UNECA 2015: 23). Support for building policy capacity with a view to the promotion of exports, upgrading and diversification has been shown to be rather small, indicating a misalignment between the preferences of donors and aid recipients. This has been particularly the case with reference to the promotion of industrial development (UNECA 2013: 21ff).

In addition, support in the area of trade related adjustment has so far played only a marginal role. As we have shown above, EPAs will have a sizable impact on public income for the Africa partners, particularly in the ECOWAS region. Employment will also be affected. It is therefore important to substantially increase financial support for trade adjustment during the process of EPA implementation.

EPA implementation will thus necessitate a recalibration of AfT priorities for funding. While we do not put into question the strong emphasis on infrastructure spending, we do contend that priorities need to be realigned, putting more emphasis on (i) capacity building in government institutions, in particular to promote structural transformation and industrial development; and (ii) funding for fiscal adjustment, both in terms of compensating foregone tariff income in the short to medium term, and to support the efforts towards domestic resource mobilization on an expanded scale.

6.5. Designing an Effective Monitoring Process for EPA Implementation

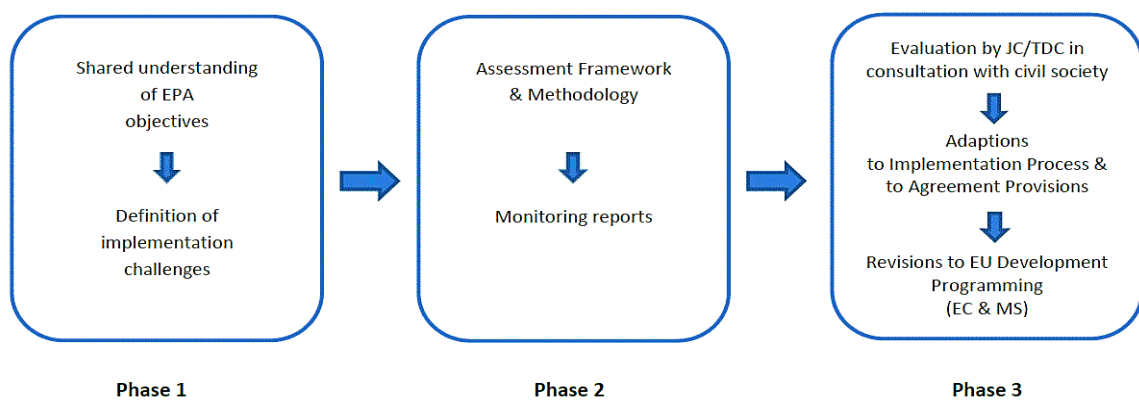
Though the EPAs to varying degrees set up an institutional structure responsible for the implementation and review of the agreements, *effective* implementation should not be taken for granted. Effectiveness for our purposes entails in particular that the agreements reach their intended goal of fostering sustainable development of the African partner countries. Recent research on implementation experiences with the sustainability chapters of EU FTAs point to a number of severe shortcomings that provide important lessons for EPA implementation. These shortcomings relate in particular to the following issues (Harrison et al. 2016; Orbie/Van den Putte 2016):

- a) A lack of commitment by governments and public officials responsible for implementation. This can have diverse reasons. Government officials might constrain themselves to their narrow agendas only, i.e. trade officials only taking care of trade issues. Thus, important linkages between the different dimensions are out of the focus. Since sustainability chapters are considered the darling of parliaments and civil society, expectations for making progress on these issues are loaded onto civil society.
- b) Operational deficits in terms of supporting the work of civil society mechanisms, including in particular inadequate resourcing, infrequent meetings and insufficient influence. Given that the EU requires a high level of civil society engagement to ensure implementation of e.g. labor clauses and remedies for labour violations (Ebert/Posthuma 2011; Vogt 2015), trade unions and civil society actors as a result are confronted with rather high demands in terms of fulfilling this role. Particularly in LDC circumstances, the accomplishment of these tasks cannot be taken for granted, but necessitate strong capacity-building. Furthermore, even in the case that civil society successfully performing these tasks, partner countries' governments may not be

willing to cooperate for political reasons and, concomitantly, the EU might be hesitant to put pressure on uncompromising trade partners for commercial or other reasons, thus ultimately frustrating progress.

- c) Conceptual problems in terms of defining and agreeing upon the precise objectives of the monitoring and review exercises and its operationalization in terms of a suitable methodology. Depending on the specific politico-economic context of the agreement, differing and potentially incompatible objectives promoted by different stakeholders might emerge that severely hamper the work of the civil society mechanisms. In the CARIFORUM agreement, efforts to develop a methodological approach for monitoring the economic and social impacts of the agreement have just begun, i.e. eight years after its signature.

Figure 34: Phase Diagram – EPA monitoring process



Source: own elaboration

Given the weak institutional structures on a governmental and a civil society level in EPA partners, capacity building with respect to the implementation of the EPAs in terms of their economic, social and environmental dimensions will be of crucial importance (see also Ebert 2016; Schmieg 2015). While, as was shown in the previous section, the bulk of AfT funds has been spent on infrastructure and productive capacity development, based on the results of our analysis it is our strong contention that EPA implementation will necessitate a priority on building institutional capacities at both government and civil society level, in addition to the private sector level. For this, we propose to define a new budget line for EPA monitoring under Category 1 of EU AfT programming, which will support the work of in particular ACP civil society as well as government institutions.

However, apart from the required political will and commitment on the part of all involved parties, any effective monitoring process will have to be transparent and involve the following three phases (see Figure 34):

Phase 1: As a starting point a shared understanding of the precise objectives of the agreement and its central challenges, in particular those relating to the sustainability dimensions will have to be reached by the competent institutional bodies, i.e. the Joint Council (JC) and the Trade and Development Committee (TDC). For this to be achieved, broad stakeholder consultations including representatives from governments, the private sector, civil society and academia will be pivotal. While for the EAC- and ECOWAS-EPAs, this can be coordinated via the EPA Consultative Committee (CC), in the case of SADC an ad-hoc institutional fora should be established.

Phase 2: Upon that basis a methodology for assessing implementation successes and failures will have to be elaborated, led by the TDC in cooperation with the EPA-CC. This will require consulting services from experts, but should be developed in the context of active cooperation with affected stakeholders, so as to secure ownership and alignment with the interests of the partners. The result should be an assessment framework that is comprehensive and defines indicators for assessment. Upon that basis, monitoring reports should be elaborated in regular intervals that include independent assessments of implementation successes and pending problems.

Phase 3: Based on the results of the monitoring assessments, the JC/TDC and EPA-CC should discuss necessary adjustments to (i) implementation priorities and procedures, and consider (ii) eventual modifications and amendments to the provisions of the EPA agreement. Upon that basis, the EU and its member states should, subsequently, adapt the programming of its development cooperation so as to actively address the needs of EPA partners in the implementation process.

Apart from the details of the monitoring mechanism, the EU has to stand up to its special responsibility as the economically and politically more powerful partner in the EPA arrangements. Thus, it should allow for the broad usage of the – though limited – flexibilities built into the agreements. This relates in particular to the safeguard measures, infant industry clause and the exceptions on export tax restrictions. Granting the needed developmental space will be pivotal in fostering a necessarily long-term process of economic upgrading and diversification, both of which will be the prerequisite for the build-up of competitive and sustainable economies in Africa.

6.6. Key take away messages

1. Estimated economic effects of tariff liberalization for Africa are negative, but mostly small:

The key characteristic of EPAs is asymmetrical market opening by African partners. Though smoothed by long implementation periods and exemptions for sensitive products, tariff liberalization in industrial goods and – to a lesser degree – agricultural products will likely result in negative net effects on output and employment for ACP partners. The ECOWAS region will face losses amounting to roughly 0.61% of GDP. Effects for EAC and SADC are smaller, amounting to 0.42% and 0.20%, respectively. All economic sectors will be affected, with industrial sectors such as machinery, chemicals and other manufacturing hit hardest. Only in Ghana specific sectors might also slightly profit from increased exports, including commodities and foodstuffs exports.

2. Macroeconomic adjustment costs are significant and need EU policy responses:

Firstly, trade liberalization affects employment. Our simulations suggest that job losses on the order of magnitude of 18,000 jobs in SADC, 85,000 jobs in EAC, and 210,000 jobs in ECOWAS are possible. Secondly, tariff revenues are an important source of income for public budgets in most SSA-countries, particularly in ECOWAS. A rough calculation would arrive at tariff revenue losses for ECOWAS countries (including Nigeria) of USD 615 million p.a. between years 5 to 10 of the implementation period, which would then increase to USD 1.74 billion p.a. at the end of the implementation period. For Ghana, the respective numbers are USD 69 million p.a., and USD 226 million p.a.. Thus, the social groups particularly affected by trade liberalization will be workers in industrial sectors and, potentially, other mostly poor households who disproportionately depend on social transfers and public services financed through state budgets.

This necessitates a two-pronged policy response: first, EU fiscal adjustment support needs to be substantially increased in the period post-2020 in order to compensate for the expected revenue losses. Second, EU support to strengthen domestic resource mobilization in ACP partner countries should be scaled-up immediately. Both measures require a substantial increase of funds under EU development cooperation programs.

3. Promotion of export sectors needs strong industrial policies for structural transformation in three priority areas:

Counter-balancing the negative effects of asymmetrical liberalization will necessitate a long-term strategy for the promotion and upgrading of export sectors through:

- 1) Support services in the area of finance, skill development and extension services in agricultural and manufacturing sectors are required to foster the development of farmers and local firms. A focus on initiating collaboration and linkages among local actors (farmers and firms) as well as between local and foreign firms can help to support productivity and learning.
- 2) The development of effective public institutions is crucial to increase productivity, upgrading and diversification. Public-private dialogue and broad inclusion of civil society is important to ensure effective and sustainable policies and outcomes.
- 3) Regional integration on the production as well as end market side should be used strategically to tackle productive constraints and influence the bargaining power vis-à-vis global buyers. Further, domestic and regional end markets can be an important alternative to high income country markets particularly for developing further functional upgrading processes in terms of agro-processing and manufactured products.

4. EU Development Cooperation will need to support comprehensive capacity-building in the public sector:

EU Aid for Trade funding has so far focused on spending for infrastructure and private sector capacity-building. A key factor, for successful EPA implementation and active management of agreement flexibilities as well as for productive development with a focus on upgrading and economic diversification, will however be the capacities of governments and public institutions. A substantial increase of funds available for trade policy and regulation as well as trade policy development under EU development cooperation programs is thus necessary.

5. EPA monitoring process must be results-oriented, inclusive, transparent, and flexible:

The monitoring process will be absolutely pivotal both in terms of the agreements' economic success and political acceptance. This will require three central elements: (i) a common understanding of the agreement's objectives and identification of key implementation challenges by governments, the private sector and civil society (including academia); (ii) a transparent monitoring and assessment process based on an agreed-upon and concise methodology, and (iii) the flexibility to adapt the implementation process and the agreements in response to changing economic and political conditions. EU financial support for facilitating in particular civil society participation, for funding concomitant academic research as well as, in general, a magnanimous commitment to the development prerogatives of the EPAs will be essential.

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ANNEX I

Table 1(I) List of Interviews in Mozambique

Interviews were conducted in person or telephone and supplemented by inquires via email

Institution/Organization/Business	Date
Austrian Foreign Ministry (BMEIA)	28.09.2016
European Commission (EC)	21.10.2016
Ministry of Industry and Commerce (MIC)	01.11.2016
Independent Trade Consultant	02.11.2016
Food and Agriculture Organization (FAO)	02.11.2016
Austrian Development Agency (ADA)	02.11.2016
Olam International	03.11.2016
Better Cotton Initiative (BCI)	03.11.2016
Cotton Institute of Mozambique (IAM)	03.11.2016 07.11.2016
United Nation Industrial Development Organization (UNIDO)	04.11.2016
Plexus Cotton Group	04.11.2016
Confederation of Economic Associations Mozambique (CTA)	04.11.2016 10.11.2016
Cotton Institute of Mozambique (IAM)	07.11.2016
Confederation of Economic Associations Mozambique (CTA)	07.11.2016
Ministry of Agriculture and Food Security (MASA)	08.11.2016
MASA – Plant Protection Department	08.11.2016
German Federal Foreign Office, Maputo	09.11.2016
Cotton Association of Mozambique (AAM)	09.11.2016
Political Scientist	09.11.2016
International Trade Department (ITD) of the Ministry of Commerce, Industry and Trade, Swaziland.	10.11.2016
Swaziland Investment Promotion Agency (SIPA)	10.11.2016
Mauritian Chamber of Commerce and Industry (MCCI)	11.11.2016
Mozambique Revenue Authority	11.11.2016
Mozambique Custom Authority	11.11.2016
Instituto Nacional de Normalização e Qualidade (INNOQ)	11.11.2016
Federal Chamber of Commerce and Industry Madagascar (FCCIM)	11.11.2016
National Forum of Cotton Producers (FONPA)	12.11.2016
Various telephone interviews with private companies and experts in the T&A sector in the region	

Table 1(II) List of Interviews in Ghana

Interviews were conducted in person or telephone and supplemented by inquires via email

Institution/Organization/Business	Date
Private mango sector consultant in Accra	23.01.2017
Gesellschaft für International Zusammenarbeit (GIZ) – cocoa expert	23.01.2017
International Chamber of Commerce (ICC)	24.01.2017
African Center for Economic Transformation (ACET)	24.01.2017
Gesellschaft für International Zusammenarbeit (GIZ)	25.01.2017
Ghana Export Promotion Authority (GEPA)	25.01.2017
Peelco Ltd.	25.01.2017
Adventist Development and Relief Agency in Ghana (ADRA)	26.01.2017
Hans Peter Werner Fresh and Dry (HPW)	27.01.2017
African Center for Economic Transformation (ACET)	27.01.2017
International Food Policy Research Institute (IFPRI)	30.01.2017
Ghana Export Promotion Authority (GEPA)	30.01.2017
Third World Network, Ghana (TWN)	30.01.2017
Ministry of Trade and Industry (MOTI)	31.01.2017
Touton Ghana	31.01.2017
Agro Green Limited / Agro Green Fresh	31.01.2017
Revenue/Custom Authority	01.02.2017
Plant Protection and Regulation Service Directorate (PPRSD)	01.02.2017
EU Delegation in Ghana	01.02.2017
Niche Cocoa	02.02.2017
Science and Technology Policy Research Institute – Council for Scientific and Industrial Research (STEPRI-CSIR)	02.02.2017
Blue Skies Ghana	03.02.2017
Yilo Krobo Mango Farmers Association	03.02.2017
Cocoa sector expert (private)	03.02.2017

Table 1(III) List of Interviews in Uganda

Interviews were conducted in person or telephone and supplemented by inquires via email

Institution/Organization/Business	Date
Directorate of Fisheries Resources	24.01.2017
Department of Regulation Control and Quality Assurance	24.01.2017
MAAIF, Aquaculture Management	24.01.2017
Fish Processing Company	25.01.2017
Uganda Fish Processors & Exporters Association (UFPEA)	25.01.2017
DANIDA, International Development Cooperation	25.01.2017
Ministry of Finance, Planning and Economic Development	25.01.2017
Ministry of Finance, Planning and Economic Development	25.01.2017
SEATINI, NGO	27.01.2017
Uganda Manufacturers Association, UMA	28.01.2017
Uganda Coffee Federation	30.01.2017
African Coffee Academy	30.01.2017
Uganda Coffee Development Authority (UCDA)	30.01.2017
NUCAFE, Coffee Farmers Organisation in Uganda	31.01.2017
Chamber of Industry and Commerce	31.01.2017
Ministry of Trade, Industry and Commerce	31.01.2017
Coffee Exporter	01.02.2017
Consultant Fish	01.02.2017
Hanns. R. Neumann Stiftung	02.02.2017
Uganda Coffee Development Authority (UCDA)	02.02.2017
Ministry for East African Community Affairs	02.02.2017
Uganda Manufacturers Association, UMA	03.02.2017

ANNEX II

Table 1(II): Sectoral Details

	Sector	GTAP 9 Sectors (short)
1	Cereals (cer)	PDR, WHT, GRO
2	VegFruit (v_f)	V_F
3	OthAgri (oag)	OSD, C_B, PFD, CTL, OAP,RMK,
4	OthCrops (ocr)	OCR
5	Fishery (fsh)	FSH
6	Commodities (com)	COA, OIL, GAS, OMN
7	Meat (mea)	CMT, OMT
8	Sugar (sug)	SGR
9	Dairy (dai)	MIL
10	Foods (fds)	VOL, ODF
11	BevTab (b_t)	B_T
12	Textiles (tex)	TEX
13	Apparel (app)	WAP
14	Leather (lea)	LEA
15	Petroleum (pet)	P_C
16	Chemicals (che)	CRP
17	Machinery (mac)	OME
18	Metals (met)	NFM
19	OthManu (oma)	LUM, PPP, FMP, MVH, OTN, ELE,
20	Services (ser)	All Service Sectors

Table 2(II): Schedule for tariff reductions (in % of current tariff level)

		EU against SA	SA against EU	EU against BLNS*	BNLS* against EU	EU against MOZ	MOZ against EU
1	Cereals	90	90	100	90	100	5
2	VegFruit	98	95	100	95	100	5
3	OthAgri	90	100	100	100	100	5
4	OthCrops	100	100	100	100	100	10
5	Fishery	100	100	100	100	100	0
6	Commodi-	100	100	100	100	100	0
7	Meat	25	75	100	25	100	10
8	Sugar	25	100	100	100	100	80
9	Dairy	95	25	100	25	100	10
10	Foods	80	95	100	95	100	5
11	BevTab	75	100	100	100	100	50
12	Textiles	100	25	100	25	100	20
13	Apparel	100	50	100	50	100	2
14	Leather	100	100	100	100	100	100
15	Petroleum	100	100	100	100	100	5
16	Chemicals	100	100	100	100	100	50
17	Machinery	100	100	100	100	100	100
18	Metals	100	100	100	100	100	100
19	OthManu	100	50	100	95	100	60
20	Services	0	0	0	0	0	0

Note: * All other SACU countries Botswana, Lesotho, Namibia and Swaziland (BLNS).

Source: own estimates based on liberalization schedules in the SADC-EPA

Table 3(II): EU MFN/GSP tariffs (in%, trade weighted)

	SADC-EPA			ECOWAS-EPA			EAC-EAP
	Botswana	Namibia	Swaziland	Ghana	Nigeria	Côte d'Ivoire	Kenya
1 Cereals	0	0	0	10	2	18	0
2 VegFruit	0	11	8	6	1	9	5
3 OthAgri	0	0	0	0	0	0	0
4 OthCrops	0	1	1	0	0	0	3
5 Fishery	0	15	0	3	1	8	3
6 Commodities	0	0	0	0	0	0	0
7 Meat	75	72	65	0	17	29	29
8 Sugar	0	0	20	0	1	20	20
9 Dairy	0	0	20	42	47	15	0
10 Foods	14	8	15	9	5	8	13
11 BevTab	0	0	17	4	1	6	0
12 Textiles	10	9	4	6	3	3	8
13 Apparel	4	3	9	10	9	10	9
14 Leather	4	2	2	3	0	0	1
15 Petroleum	0	1	0	0	0	0	0
16 Chemicals	2	0	0	0	0	0	0
17 Machinery	0	0	0	0	0	0	0
18 Metals	0	1	0	0	0	0	0
19 OthManu	1	2	2	0	0	0	0
20 Services	0	0	0	2	0	3	4

Notes: own estimates based on trade flows 2012-2014 and GSP tariffs
Source: UN Comtrade 2017; WTO-Trains