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Trade Liberalisation and Fiscal Adjustments:

The Case of EPAs in Africa

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Acronyms

ACP	African, Caribbean and Pacific
AfDB	African Development Bank
AEO	African Economic Outlook
AfT	Aid for Trade
BLNS	Botswana, Lesotho, Namibia and Swaziland
CARIFORUM	Caribbean Forum
CAR	Central African Republic
CREDIT	Centre for Research in Economic Development and International Trade
COMESA	Common Market for Eastern and Southern Africa
CDR	Republic Democratic of Congo
CET	Common External Tariff
CGE	Computable General Equilibrium
CU	Customs Union
DRC	Democratic Republic of Congo
EAC	East African Community
ESA	Eastern and Southern Africa
EPAs	Economic Partnership Agreements
EPADP	EPA Development Programme
ECDPM	European Centre for Development Policy Management
EC	European Commission
EU	European Union
EUR	Euros
EBA	Everything But Arms
GATT	General Agreement on Tariffs and Trade
GSP (EU)	Generalised System of Preferences
FTP	Fiscal Transition Programme (‘Programme de Transition Fiscale’)
FTA	Free Trade Agreement
GE	General Equilibrium
GST	Goods and Services Tax
GDP	Gross Domestic Product
HS	Harmonized System
ICT	Information and Communication Technologies
IEPA	Interim Economic Partnership Agreement
IMF	International Monetary Fund
ITAQA	International Trade and Quantitative Analysis
ITC	International Trade Centre
LTU	Large Taxpayers Unit
LDC(s)	Least Developed Country(ies)
MDGs	Millennium Development Goals
CEMAC	Monetary and Economic Community of Central Africa
OECD	Organization of Economic Cooperation and Development
PNG	Papua New Guinea
PE	Partial Equilibrium
RECs	Regional Economic Communities
SMEs	Small and Medium Enterprises

SSA	Sub-Saharan Africa
SACU	Southern Africa Customs Union
SADC	Southern African Development Community
STP	Sao Tome and Principe
TC	Trade Creation
TD	Trade Diversion
TRIST	Tariff Reform Impact Simulation Tool
TDCA	Trade, Development and Cooperation Agreement
UEMOA	Union économique et monétaire ouest-africaine
UNECA	United Nations Economic Commission for Africa
USD	US Dollars
VAT	Value Added Tax
WAEMU	West African Economic and Monetary Union
WITS	World Integrated Trade Solution
WTO	World Trade Organization

Executive Summary

The African, Caribbean and Pacific (ACP) states have spent the last ten years engaged in negotiating the Economic Partnership Agreements (EPAs) with the European Union (EU) – with various degree of progress across regions. While in the Caribbean, the two parties managed to agree on a complete, and comprehensive agreement, most African and Pacific countries, in particular least-developed countries (LDCs), have not yet managed to conclude any agreement with the EU and continue to pursue negotiations towards comprehensive regional EPAs.

EPAs represent a fundamental shift in the trading relations between the two parties, from a non-reciprocal preferential trading regime – under which ACP countries could export almost freely to the EU while maintaining their own restrictions on EU imports – to one requiring reciprocity in liberalisation, albeit with a certain degree in asymmetry in commitments, in line with rules of the World Trade Organizations. Under an EPA, while the EU has agreed to grant full and immediate market access to ACP/African countries, those ACP who decide to enter an agreement have to remove tariffs on "substantially all the trade" between themselves and the EU "within a reasonable length of time", to comply with Article XXIV of the General Agreement on Tariffs and Trade (GATT). This has been interpreted by the EU as meaning that the ACP/African countries have to liberalise at least 80% of the value of trade with the EU and tariff lines over a maximum transition period of 15 years.

Yet, given the large share of government revenues historically collected on trade taxes, and custom duties in particular, and given the importance of EU imports in overall taxable imports in many ACP countries, a great deal of the opposition to, or at least concern over EPAs has focused on the argument that the agreements were likely to have significant negative effects on government revenues, and therefore on social expenditures geared towards the achievement of the Millennium Development Goals (MDGs), at least in the short-run. This concern continues, along many other contentious issues, to hamper the pace of the negotiations towards full EPAs in Africa.

With this in mind, and at a time when many African countries are contemplating increased pressure to conclude comprehensive agreements and/or sign, ratify and implement interim EPAs, it is important to understand the likely scale of the revenue impacts these agreements may have on ACP/African finances, as these impacts may bear significant implications for on-going EPA negotiations and regional integration efforts.

More broadly, the aim of this paper is to explore the fiscal consequences of EPAs and what might be done to address them in light of the difficulties frequently faced in raising domestic tax revenues in ACP countries. It places its reflection in the current international context marked by the aftermaths of the recent economic and financial crisis, which not only added further strains on already fragile fiscal balances in developing countries, but also tightened pressure on aid budgets in donor countries, notably in the EU that has been and continues to be hit hard by economic difficulties.

If there is one consideration that is important to keep in mind at the very outset, is indeed that analysing the fiscal impact of EPAs cannot be done in a *vacuum*. The context matters! In terms of EPAs, the global crisis holds indeed a number of implications, which cannot be here overlooked as they may point to a need to re-evaluate some elements of an EPA to take the new context into account[1]. Similarly, it is also important to

[1] The potential effects that require further exploration include re-estimating the short-term loss of revenues, the scope for potential remedies against the economic slowdown, 'fiscal space' and taxation options in the medium and longer term, the need to deepen supply side reforms and the political constraints and opportunities of taxation reform

note, in the same vein, that, contextually, ACP and other developing countries have been engaged (though to varying degrees) in trade liberalisation efforts with other trade partners, in some cases over a period of two to three decades. As such, the share of trade-related revenues in overall tax revenues has in any case been declining.

Objective of the study

This study provides a comprehensive and comparative overview of the possible fiscal impact of EPA across the whole of Africa, highlighting key factors that influence the likely loss of revenues due to trade liberalisation in the context of EPAs and identifying possible remedies/support options that may be considered by both developed and developing countries alike.

A wide range of studies has been carried out to estimate the fiscal impact of EPAs for different countries and regions. Yet, across-the-board, and when comparing the results of various comprehensive assessments, our analysis illustrates the heterogeneity of results, across studies and countries. This is due to differences in approaches, methodologies, assumptions, level of analysis and data, among others, discussed in detail in this study. Nonetheless, some general trends and order of magnitude can be identified, which can be of high value for policy-makers in particular.

This study approaches the question using a meta-analysis of existing regional and country-level studies to provide an aggregate assessment of the overall fiscal impact of EPAs to date. This allows a broad ranking of countries by the estimated scale of the fiscal impact, thus assisting policy-makers in identifying where most concern should be focused. There are numerous important methodological concerns in carrying out a study such as this and ultimately, no forecast is likely to be definitively accurate in light of the uncertainties involved. Yet, despite the difficulties in rigorously comparing estimates, this study attempts to provide a systematised summary of the revenue impact estimates, identifying the countries and regions most consistently estimated to face the largest impacts across studies. Those empirical results are then tested in light of a theoretical rule of thumb, aimed at gauging the possible scope of revenue loss likely to be induced by an EPA.

Findings

The fiscal impact of an EPA depends on the implications of the agreement for trade and production and in particular, the degree to which domestic production is import competing or import reliant. In turn, this will depend on the existing level of demand for EU imports, the effective rate at which tariffs are levied on those imports (i.e. taking into account exemptions and smuggling), and the price elasticities of demand and substitution for those imports. As such, the base on which to estimate fiscal impacts is itself complex and subject to numerous factors and assumptions.

Further, the EPA process is simply one of a range of trade liberalisation efforts. As such, the impacts accentuate a broader decline in border tax revenues over time due to these additional trade liberalisation measures. The scale of this additional impact depends on the country considered, the structure of its economy, the importance of imports from other regions and the importance of customs revenues in overall tax revenues. The importance of natural resources in the domestic economy and the capacity of the tax

during a slowdown. In the longer term, one further consideration is that the legacy of the crisis in developed and developing countries has been that it has changed not just the economic outlook, but also both the perception and practice of economic policymaking itself (for example on fiscal deficits or inflation rates), with potential consequences for developing countries.

administration are clearly also important factors in determining the level and structure of a country's tax revenues.

As the analysis in this study shows, the practicalities of examining each of these elements leaves the field open to a wide range of approaches and methodologies, all with important implications for the estimated the results. As such, an important contribution of the paper is to highlight the strengths and weaknesses of different models as a guide to the debate.

In particular, the paper highlights that in analysing and comparing estimates of the likely fiscal impact of the EPAs, it is important to distinguish between the impacts that relate to legitimate methodological choices and those which stem from incorrect use of the data. One example explored in this study relates to the use of statutory tariffs versus effective tariffs – those actually collected – a distinction that can lead to quite different results.

Moreover, the methodological approach is important. Whether or not an analysis is partial equilibrium or general equilibrium, conducted on a regional or national basis, all impact on the estimates derived. As such, there is an inherent likelihood of large variations in the estimated impacts across countries and regions.

This is not to say that different estimates for one country always vary widely, and it is here that the present study may be of most interest. Despite the methodological differences of the studies employed in this paper, a comparison of estimated impacts allows us to rank countries according to their expected impact from the EPAs. This exercise allows us to identify eight countries, which can be classed as having estimated fiscal impacts that are likely to be "very high" (an impact of from a six percent reduction in total tax revenues to 43 percent). This group includes Benin, Cape Verde, Comoros, Djibouti, Gambia, Ghana, Guinea Bissau and Togo. That most of these all based in West Africa hints that regional factors may be important.

We then identify a group of countries likely to face a "high" estimated fiscal impact ranging from -2.9 percent of tax revenues to -15.94. It includes 15 countries, most of which are in Central or West Africa. A further twelve countries, mainly located in Eastern and Southern Africa, are estimated to incur a "modest impact", while seven countries (Zambia, Swaziland, Nigeria, Namibia, Lesotho, Botswana and Malawi) have been estimated to incur a relatively "low" impact, as can be seen in Figure 5.1a.

As these results have to be taken with great caution, given the methodological limitations this comparison (self-consciously) entail, the paper presents further a broad rule of thumb to estimate the fiscal impacts more generally. Based on the share of EU imports, the degree of trade protection and the importance of trade tax revenues in total taxes, this provides a simple check based on basic economic rationale for the empirical ranking, explained above. This "economic rule of thumb" approach reveals very few major discrepancies with the results from the detailed studies, (compare Figures 5.1 (a) and (b)), comforting therefore our intuition.

A major limitation of such an approach is that it focuses on the overall fiscal impact of an EPA, ignoring the crucial time dimension of trade liberalisation. Indeed, fiscal effects depend on the market access schedule and speed of the adjustment process, so that the fiscal impact is spread over time. While aggregating fiscal impacts provides a convenient basis for some straightforward comparison across studies and countries, it can nevertheless be quite misleading. It might be easier for a country to absorb a larger fiscal impact

spread over a longer period of time that to deal with the shock of a lower aggregated fiscal loss concentrated over a shorter period.

Figure 5.1: Mapping of empirical and theoretical rankings of countries according to their potential loss of tax revenues

Figure 5.1(a)

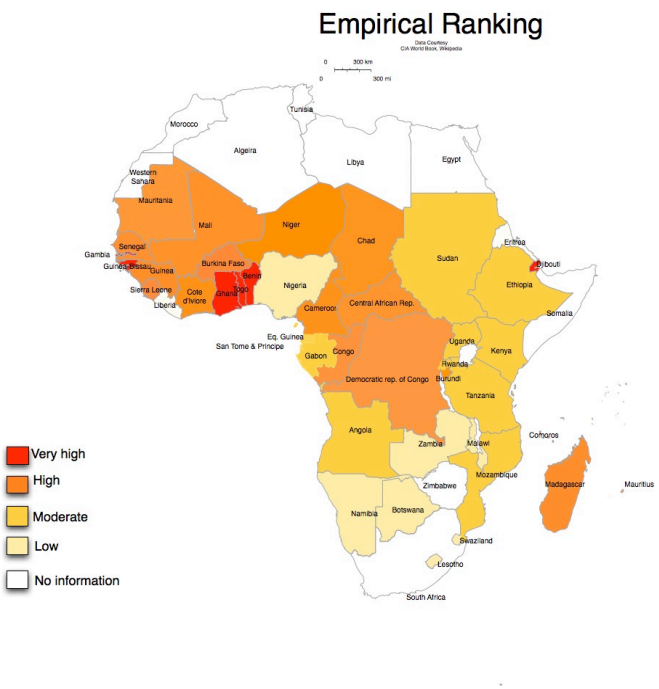
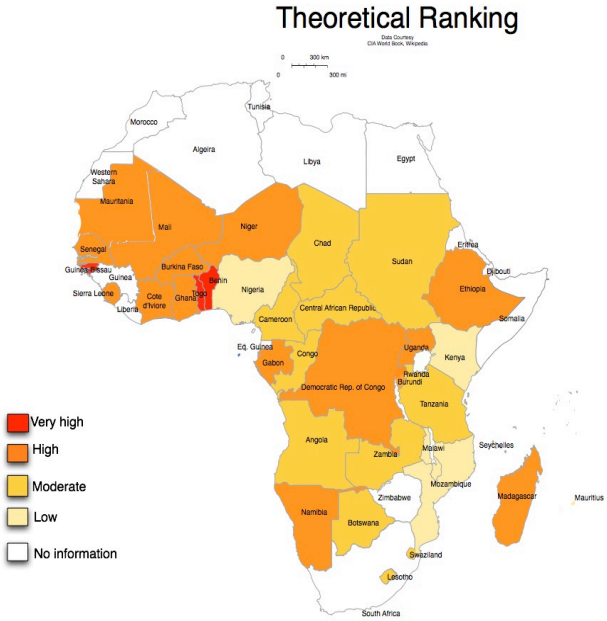


Figure 5.1(b)



Overall, our analysis points to a variety of likely experiences that suggest that ultimately the impact of EPAs on ACP/African economies remains best assessed on a case-by-case basis. Beyond the above-mentioned rules of thumb indeed, a number of additional factors will be key determinants of the overall impact of EPA tariff liberalisation on government revenues. Among those, for instance, the capacity of each country to reorganise its fiscal base and to shift to other forms of taxation are a critical determinant of the scope of revenue loss resulting from EPA-related trade liberalisation.

In terms of reaching a comprehensive assessment of the fiscal impacts of EPAs, our analysis stresses the need for the greatest caution, as results may significantly vary. One overall conclusion, however, is that there has been a general tendency to overestimate the direct fiscal losses resulting from an EPA, at least in some of the earlier studies as compared to more recent analysis. The overestimations are due mainly to methodological shortcomings, the use of older trade and tariff data, as well as the lack of information prior to 2008 on actual commitments regarding the scope and speed of trade liberalisation.

Nonetheless, the implementation of an EPA can have significant, and in some countries very serious, consequences for government revenues. For these countries, more detailed country-analyses still need to be conducted regarding the potential impact of an EPA on fiscal revenues to ensure an understanding of the most appropriate policy response. Where direct (net) compensation is envisaged, detailed analysis will be critical to make sure funds are provided not only in a timely and sufficient manner, but that they are also directed towards those that most need them. It is also critical to ensure that decisions regarding the country-oriented allocation of compensatory measures or aid for trade (AfT) are accordingly tailored to

assessments of the fiscal losses that might be expected from EPA[2]. Moreover, even though EPAs are likely in many countries to have more limited and gradual effects than expected, in order for them to be politically acceptable and economically sustainable – not least in a time of crisis – a strategy to deal with these revenue losses is certainly necessary.

Implications

Despite the range of analyses of potential revenue impacts from EPA implementation, there has been surprisingly little discussion of the more practical and policy-related questions of how to address the fiscal impact of the agreements.[3] For some countries with significant liberalisation commitments early on in the implementation period, the revenue impact of EPAs are likely to become a pressing concern in the next few years. This implies a need to examine domestic taxation issues in more detail.

Moreover, regardless of their actual impact on tax revenues in EPA signatory countries, EPAs could also have a potentially catalytic effect on government policies and reforms in ACP/African countries, on tax and trade issues in particular. By focusing attention on these issues and encouraging joint responses on the part of donors and ACP/African countries, EPAs represent an opportunity for all relevant parties to engage in addressing the challenges posed by implementation of trade liberalisation commitments and accompanying adjustments and reforms. This may include for example the commitment to a greater long-term engagement to fiscal reform in EPA signatory states, a greater focus on using tax policy to promote employment and economic growth and endeavours to strengthen the link in budgetary processes between revenue raising and public expenditures.

The current literature on taxation and development puts increasing importance on the role of taxation in promoting state capacity and stronger governance institutions. In this context, a decline in border revenues may also offer an opportunity to readdress the "fiscal contract" between government and its citizens in order to improve the degree of citizen engagement in taxation issues and therefore willingness to comply.[4]

EPAs also represent an opportunity for adjustments in donors engagement, for instance by putting greater emphasis on international tax cooperation and coordination of their own tax regimes with those in developing countries and to help facilitate such reform. By understanding the current fiscal context of the EPAs, donors might also be better placed to target aid at improving the coherence between tax policy and objectives of economic growth and poverty reduction.

Further, since the initial conclusion of (interim) EPAs in 2007, focus has sharpened on all sides on the need for EPA development support, amidst a backdrop of increasing donor attention to aid for trade more generally. While EPAs do not include legally binding financial commitments that were sought by ACP countries during the negotiations, in all cases the EPA texts include clauses on development issues that cover cooperation across a range of issues, including those that give explicit recognition to the fiscal consequences of EPAs and commit the parties to take measures to address them. The European Union Council has recognised that EPAs may have a fiscal impact on ACP countries and committed to address this, including addressing the "net fiscal impact of EPAs"[5]. Further, in March 2006 the European

2 Recent work done on the EU Commitment to Deliver Aid for Trade in West Africa and Support the EPA Development Programme (PAPED) show that there is room for improvement in this respect, as Liberia for instance

3 An early attempt includes Bilal and Roza (2007).

4 See Byiers and Dalleau (2011) and Keen (2012) for a discussion of the literature.

5 Most notably, in its conclusions of May 2007 the EU Council stated, for example, that the EU would:'...promote an effective response to the wider AfT agenda by continuing to strengthen Member States' and the Commission's support for demand-driven, pro-poor development strategies which incorporate building productive capacities, trade-related infrastructure, and trade-related adjustment. The latter includes *absorption of net fiscal impact*

Parliament, which has long been a major advocate of a strong 'development dimension' in EPAs, had been even more explicit in calling upon the European Commission:

> '...to take into account the budgetary importance of tariff revenues in many ACP states, which will be vastly reduced by any agreement for reciprocity with the EU; such reduction may lead to immediate cuts in public spending in areas such as health and education, compromising ACP efforts to achieve the MDGs; and therefore calls on the Commission to propose and fund comprehensive fiscal reform programmes ahead of full reciprocal market opening.'[6]

If such political expressions lead to concrete donor responses, this suggests that resources and technical assistance will be made available to support EPA-related reforms including those required to implement tariff liberalisation and a shift to alternative fiscal regimes. Further, ACP governments can indeed take steps to improve their relations with citizens around tax policy.

A key fundamental challenge in the future will thus be the need for political leadership and commitment on both sides to address EPA-related fiscal adjustments and broader fiscal reforms, as an integral part of a domestic resource mobilisation agenda, with appropriate development and technical support. The debate should thus shift away both from theory and rhetoric, towards more concrete actions to address the potential revenue shortfalls, with a role for all stakeholders, including governments, the private sector, researchers and donors community, but also at all levels, including the regional level. Regional initiatives could indeed play an important role in the strategy aimed at addressing the fiscal impact of an EPA, all the more since for some countries, replacing trade taxes that they are likely to forego in the context of an EPA, might be an even more pressing concern given the substantial liberalisation that has taken place in the context of regional integration processes.

As yet however the debate about the specific reform options available to each country, and the details of implementation, would appear to be in the initial stages with studies such as this one hopefully providing useful inputs to better informed policy decisions.

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resulting from tariff liberalisation in full complementarity with fiscal reforms' [emphasis added]. See EU Council Conclusions, May 2007. See also in this respect the debates around the net fiscal impacts of EPAs in West and Central Africa.

6 European Parliament (2006). Resolution of 23 March 2006 on the development impact of Economic Partnership Agreements (EPAs). OJ C 292 E, 1.12.2006, p. 121. The Parliament's concern for the fiscal impact of EPAs was also repeated in 2009 when it emphasised the importance of the EPAs on reform measures relating to public finance management and tax systems. 'The development impact of EPAs will result from their effects on [inter alia] the implementation of reform measures in the ACP countries, in particular as regards public finance management, collection of customs duties and establishment of a new tax revenue system.' European Parliament resolution of 5 February 2009 on the development impact of Economic Partnership Agreements (EPAs) (2008/2170(INI)), available at: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2009-0051+0+DOC+XML+V0//EN&language=EN

1. Introduction

Over the past nine years, the African, Caribbean and Pacific (ACP) states have been engaged in negotiating with the European Union (EU), the Economic Partnership Agreements (EPAs), whose central feature is a shift from a non-reciprocal preferential trading arrangement to free trade agreements (FTAs) compatible with Article XXIV of the General Agreement on Tariffs and Trade (GATT). Whereas in the past, under the successive Lomé Conventions and the transitory provisions of the succeeding Cotonou Agreement, almost all ACP exports (except some agricultural products) could access EU markets duty-free while maintaining their own tariffs on EU imports, ACP countries that have entered or will enter an EPA should under this new regime liberalise "within a reasonable length of time" "substantially all trade" with the EU, in accordance with rules at the World Trade Organization (WTO).

Of course, this demand of reciprocity from the ACP/African side, even if asymmetrical, is likely to impose some adjustment costs on their part, among which the need to establish alternative sources of fiscal revenues. Tariff dismantling may indeed intuitively result in potential revenue loss and this risk is all the more acute in ACP/African countries given the large share of government revenues historically collected on trade taxes (and custom duties in particular), and the importance of EU imports in overall taxable imports. Of course, the differences in commitments the various regional EPAs may in the end contain in terms of both the level and pace of liberalisation will bear some implications in terms of fiscal impacts[7]. Whether a country has 20 years to liberalise more than 80% of its tariff lines without any reductions within the first years (as was previously the case of some EAC countries) or has to liberalise 60% of imports within the first 3 years of implementation (as was required at the time from Cote d'Ivoire under its Interim EPA) will not have the same effects on the country's fiscal situation, and in turn its willingness to enter or not an EPA.[8] The likely revenue loss African countries may expect from an EPA is dependent on a broad range of factors and impacts cannot therefore be presumed *a priori.* In any case, it is clear that the question of the fiscal impact of EPAs is clearly one that cannot be neglected, for economic reasons, as emphasized above, but also for political ones.

Adjustment costs to an EPA are likely indeed to be borne in the short and medium term, and in addition to the fact that this time is also the one of politicians fighting for re-elections, it is worth emphasizing here that these costs may be even more difficult to address in the current international context marked by the recurrence of economic crisis and instability. The 2008-2009 financial economic crisis has indeed revealed the vulnerability of African government finances[9]. If some countries have had enough fiscal space to implement counter-cyclical measures (Mauritius, Tanzania, Uganda), others have been forced to adjust to these deficits by reducing government spending[10]. Understandably, African policy-makers may therefore be worried about the possibility that EPA-induced fall of tariff revenues add further strain on their national budgets, in particular those African countries which rely heavily on custom revenues. Potential fiscal revenue loss from an EPA will certainly gain importance in the context of the budgetary constraints that the economic crisis originating in developed countries has heightened through various transmission channels in Africa. This global financial and economic crises, compound by the current Euro crisis, as well as the recurrence of food crises in Africa are already the source of some instability in some of poorer countries, whose governments may not therefore be willing to risk further unpopularity or unrest for the sake of an EPA. In the absence of appropriate remedy to the prospect of such losses, an EPA may thus not be affordable, or politically acceptable, for some African governments.

7 See Bilal and Stevens (2009) and Kennan *et al*. (2009).
8 Details of these commitments at the level of individual goods (i.e. at each tariff line) were at the time publicly available: a summary of the schedules submitted in 2007 is presented in Table 4.12.
9 See Jones (2009) and Jones and Martí (2009).
10 See Berg *et al.*. (2009); Kasekende *et al.*. (2010).

In this respect, it is worth noting also that the relative visibility of cross-border trade and therefore the ease with which trade taxes can be collected is also not to be underestimated. The reliance on custom duties and border taxes in general for revenues is moreover itself often symptomatic of weak tax systems and administrative capacity, highlighting the difficulties likely to be faced in replacing any lost border revenues with revenues from other domestic sources.

In this context, one can not be surprised to see that part of the opposition to EPAs has been justified on the ground and fears that these agreements may have some catastrophic effects on government finances, and therefore on social expenditures geared towards the achievements of the Millennium Development Goals (MDGs). Are these concerns justified? If so, what can then be done and expected from both sides to remedy to these, should one country be willing to enter an agreement with the EU? Are there any differences across African countries that may be worth highlighting?

These are critical questions to answer at a time where African countries have to urgently decide whether or not they would like to enter an EPA. It is indeed worth recalling here that EPAs have progressed unevenly across the ACP. While in the Caribbean, CARIFORUM States have managed to agree on a complete and comprehensive agreement, most African and Pacific countries, in particular least developed countries (LDCs), have not yet managed to conclude any comprehensive regional EPAs. Until now negotiations have only been progressing very slowly and since the end of the Lomé type/Cotonou unilateral preferences as of 2008, many African countries seemed indeed to have "settled" into the status quo. All of the countries that have concluded an interim EPA have benefited from a duty-free quota-free market access to the EU under the EU Market Access Regulation 1528 of 2007 related to EPAs – a rather convenient situation for many ACP/African countries, which have not necessarily felt compelled until now to speedily adopt or implement the interim EPA[11]. This unsustainable situation, however, will come to an end. The EC has proposed to amend the EPA Market Access Regulation 1528/2007 to exclude from its remit countries that have not taken the necessary steps to ratify, and implement their agreement as from 1st January 2014[12]. The timing of the deadline is however under negotiation. Indeed, the European Parliament has recently voted in favour of an extension of the 2014 deadline to 2016.[13] Since the Council's Trade Policy Committee has gone along with the 2014 deadline, and effectively rejected Parliament's amendment, the proposal should now go to second reading, in search of an agreement acceptable to all three institutions.

As negotiations may gain renewed momentum in the coming months, the question of the fiscal impact of EPAs may be, along with other contentious issues, one burning issue in the discussions. The scope of the revenue effects to be expected from an EPA (weighed against the risk of undermining regional integration processes, should one country unilaterally decide to implement an EPA outside a regional agreement) may well indeed play an important role in the decision by African countries to enter or not a final agreement with the EU.

Against this background, this study proposes to explore, in a systematic and comparative perspective, the fiscal consequences of EPAs and potential policy responses in this regard. Although there are a growing number of studies estimating the fiscal impact of the EPAs, these vary widely in the countries, regions, methodologies and time periods they focus on, giving an unclear overall picture of the expected revenue impact. Rather than providing a further analysis of that nature, this study approaches the question using a meta-analysis of existing regional and country-level studies to provide an aggregate assessment of the

[11] Bilal and Ramdoo (2010).
[12] For more information, see Ramdoo and Bilal (2011)and regular EPA Updates www.ecdpm.org/epaupdate.
[13] Don´t rush least developed countries into partnership agreements, say MEPs. Report of Plenary Session, European Parliament. Press Release. 13 September 2012.

overall fiscal impact of EPAs to date. This allows a broad ranking of countries by the estimated scale of the fiscal impact, thus assisting policy-makers in identifying where most concern should be focused.

In addition to this main contribution, the study builds on an earlier ECDPM analysis by Bilal and Roza (2007), providing an updated overview of the new context of ACP-EU trading relations (i.e. the comprehensive and interim EPAs that were agreed at the end of 2007), as well as the negotiations that are still on-going in various regions. It also provides new assessments to cover issues such as the regional dimension of EPAs and tariff liberalisation, the implications of the financial crisis for fiscal policy within the context of EPA implementation and the fiscal adjustments and reform process that should accompany an EPA. It notably builds on the growing literature and research that has been done in recent years on domestic resource mobilisation in Africa. It is indeed important to recognise at the very outset that tariff liberalisation under the EPAs is only one of a number of other reform agendas. This includes multilateral, bilateral, and unilateral trade liberalisation, regional integration, tax reform, and economic governance and domestic accountability. In terms of fiscal policy, most bilateral donors have had a traditional focus on improving the expenditure side of the budget and the performance of developing country Ministries of Finance and Economic Planning through instruments such as the Medium Term Expenditure Frameworks or control measures that enable the use of donor budgetary support, or assisting tax administration. However, the issue of tax policy in developing countries – or more broadly the need for attention to the challenges of 'domestic resource mobilisation' in those countries – is rising up in the development and broader international agendas. This study offers an opportunity to further reflect on these discussions.

The remainder of this study is organised as follows. Section 2 explores the role of international trade taxes in ACP/African countries, providing a comparative overview of the importance of trade taxes relative to other government revenue and other sources of government finance. It also includes a discussion of some of the basic principles of taxation, and broad taxation issues in ACP/African countries such as the 'tax mix' and the narrowness of the tax base.

Section 3 gives a brief overview of the theoretical predictions regarding trade liberalisation and fiscal revenues. Those familiar with this literature may wish to go directly to Section 4.

Section 4 provides an overview of the literature and models used to examine the fiscal impact of EPAs in multi-country/regional assessments. This covers recent empirical analyses of the post-2007 situation and points out some of the key methodological differences, strengths and weaknesses between the different approaches adopted in different studies. Readers interested purely in the ranking of aggregated fiscal impacts should go directly to Section 5.

Section 5 presents the main analytical contribution of the paper. This consists of a summary of the main findings of the literature across regions, and an initial ranking of countries in terms of their estimated fiscal impact. It also provides a comparison of this ranking with one carried out using a more basic rule of thumb.

Section 6 identifies options for reforms following the potential loss of trade tax revenues. It focuses on several aspects of the tax reform process for countries facing the (further) shift from customs duties to alternative tax regimes, including: reform options, technical and capacity building aspects, improved donor engagement and dynamics of tax reform in terms of the roles of different actors, such as the private sector, in the tax reform process. This focuses on two case studies: Mozambique and Tanzania.

Section 7 focuses on the regional dimension of EPAs and their revenue implications while Section 8 concludes.

2. The Role and Importance of Trade Taxes within Government Revenue and Financing in African countries

This section explores the role of international trade taxes in ACP/African countries. It provides some overriding principles of taxation, issues relating to their application in developing countries, and a comparative overview of the importance of trade taxes relative to other government revenues and other sources of government finance in ACP countries. It also includes a discussion of some of the basic impacts of trade liberalisation with a view to examining the specifics of EPA liberalisation in Section 3.

2.1. Basic Principles of Domestic Revenue Mobilisation

Before going into the specifics of the fiscal impacts of EPAs, it is first useful to recall some of the basic principles of taxation and the options available to developing countries, and to highlight the role of trade taxes within government finance in ACP countries.

Public finance theory allocates three main functions to the public sector: the *allocation* of resources between private and social goods, the *distribution* of income and wealth in conformity with society's view of fairness, and the *stabilisation* of employment, prices and economic growth (Musgrave & Musgrave, 1989). The associated tax policy is thus formulated around the following principles (Musgrave and Musgrave, 1989):

(1) adequate revenue;
(2) equitable distribution of the tax burden;
(3) equitable incidence;
(4) economic neutrality (in terms of minimising economic distortions);
(5) promotion of stability and growth objectives;
(6) fair and non-arbitrary administration;
(7) minimal administration and compliance costs.

These seven objectives are often summarised in the four broad aims of *revenue*, *equity, efficiency*, and *production*. The simultaneous pursuit of all of these objectives is clearly a matter of tradeoffs, depending on country-specific preferences, priorities and, importantly, conditions and capacity to prioritise one objective over another.

The need for revenues arises to finance the provision of public or socially desirable goods, including education, health, public infrastructure, security, national defence, social safety nets such as pensions and welfare benefits or social transfers, and subsidies. For developing countries, these expenditures relate to poverty reduction and the objectives set out in the Millennium Development Goals.

They do this in a variety of ways: through taxes on international trade, domestic taxes on goods and services (sales taxes, excise taxes sometimes so-called sin taxes), property, income (both personal income and corporate profits), savings, capital gains or inheritance, and local community taxes. While a distinction is sometimes drawn between taxes and fees and charges for government services (such as business licenses), these can often amount to the same thing.[14]

[14] In the context of trade agreements, the actual cost of providing the service is sometimes employed as a benchmark for distinguishing between charges and taxes.

Nevertheless, the particular 'tax mix' is often a controversial and difficult choice: different taxes affect different people in different ways. Taxes can impact on economic (particularly allocative) efficiency through their distortionary effects on behavioural incentives – such as the relationship between income taxation and individual work effort – or on investment decisions. Another key factor is the effect on equity and tax incidence, and the principles of fairness and ability to pay. A distinction is often made, for example, between more regressive and more progressive tax regimes. Beyond arguments about equity, policymakers also often consider the effect on social welfare, including the tradition of using tax systems to encourage socially desirable outcomes, such as a reduction in smoking. Other factors also include the transparency of the tax system, the ease of collection, and diversification of the tax base to avoid a reliance on one particular tax or tax base.

While the basic principles of taxation are relevant to all countries, a number of developing country characteristics restrict their ability to pursue particular policies, most notably to broaden the revenue base. First and foremost, the small size of the domestic economic base and high incidence of poverty makes it difficult to raise revenue by levying broad-based taxes. The existence of large informal sectors alongside small formal sectors makes this task even more difficult, as does the small size and capacity of some tax and customs administrations. In general, a desire to attract scarce foreign investment makes it difficult for developing countries to levy uncompetitive taxes on capital and profits, and often leads them to grant 'tax holidays' or similar incentives for luring investors. In recent times, collection has been complicated further by a highly globalised economic system in which potential sources of revenue can be transferred overseas with relative ease, or where large numbers of potentially significant domestic transactions can take place offshore, without even passing through the domestic financial system.

As the above suggests, most taxes are not applied uniformly but are each subject to an often complex set of rates and exemptions (such as minimum thresholds or exempted industries, activities or products) that reflect policy choices: this is true in developing countries as in developed ones. Implementation of tax regulations and inspections is also often uneven across geographical areas and different types of firms. This also makes it difficult to compare taxes across countries, even when nominally described in the same terms (such as a 'value added tax' or 'income tax').

As a consequence of the difficulties of raising domestic revenues, many developing countries governments have relied to an important extent on taxes on imports. Given the visibility of goods crossing borders, trade is easier to tax than other economic activities. However, the increasing pressure to liberalise trade and the reduced freedom to rely on these revenues raise important questions for tax policy in the context of trade liberalisation and particularly given commitments to set aside expenditures to achieve the MDGs, and adherence to the Monterrey Consensus of 2002.[15]

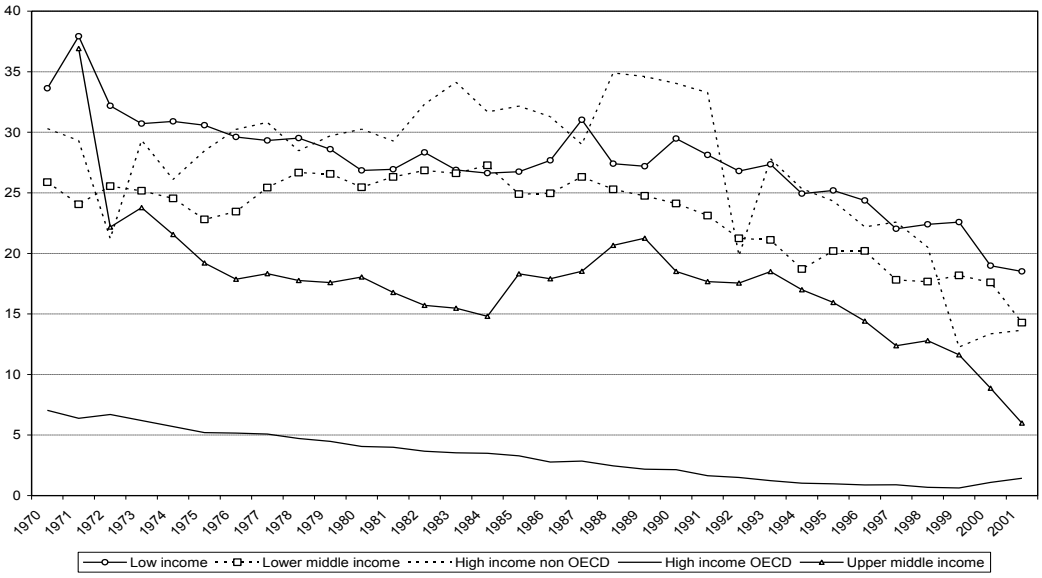
These issues are further explored in the next sub-section below.

[15] Further, developing countries have increasingly relied on Official Development Assistance (ODA) for the provision of basic public services and on external donor finance more generally to fund infrastructure and balance of payments deficits. While donor practices have evolved over time to increasingly deliver their support through national systems, some commentators have also started to debate the role of aid, especially in terms of the potential for 'aid dependency' to emerge (e.g. Glennie, 2008). The impact aid may have on governments' ability to engage with their citizenry is also important in the discussion of the role of taxation in promoting state-building and the strengthening of the "fiscal contract". A number of issues raised here – including the relationship between aid dependency and taxation, the nature of both the tax mix and tax base, and policy issues such as investment incentives and transfer pricing misuse – are also explored in the OECD-AfDB-UNECA African Economic Outlook 2010, which has a special section devoted to domestic resource mobilisation in Africa (OECD-AfDB-UNECA, 2010). See www.africaneconomicoutlook.org for further details and updated database. For a discussion, see also Byiers and Dalleau (2011) and Cottarelli (2011).

2.2. Trade Taxes and Revenue – Recent Experience in Specific ACP Countries

Trade taxes have historically been an important "tax handle" for many ACP countries: an easily identifiable source of revenues, collected with relative ease. As such, developing economies tend to rely disproportionately on import duty revenues, particularly when compared with more developed countries. This is highlighted in Figure 2.1, which gives the average revenue share from import duties from 1970 to 2001 across different income groups of countries. As this highlights, despite some volatility, low-income countries have consistently collected more revenues from import duties than other countries.

Figure 2.1: Reliance on import duties by income groups, 1970-2001

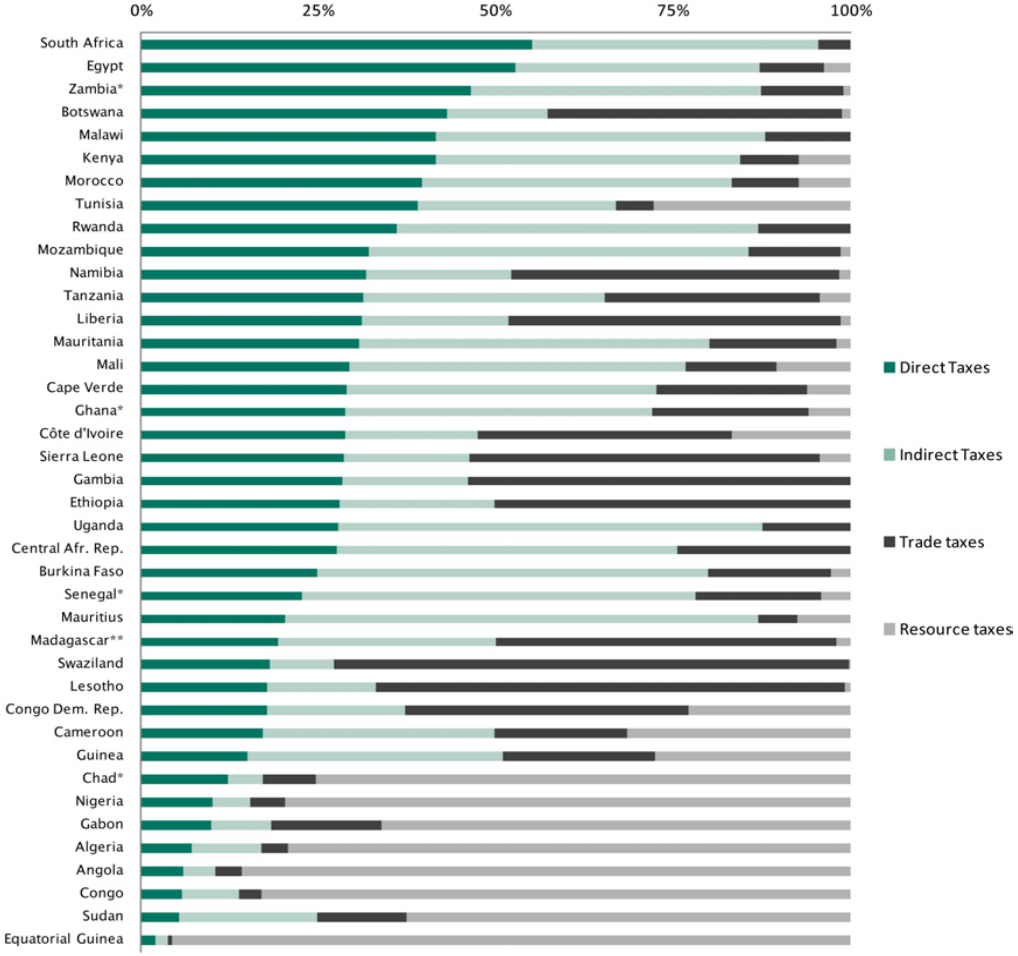


Source: Kowalski (2005).

As well as highlighting the differences in reliance on trade taxes across country income groups, Figure 2.1 also demonstrates that both developed and developing countries have become less reliant on customs duties and other trade taxes since the 1980s. Trade liberalisation in the context of the EPA negotiations has therefore occurred against the backdrop of a wider global push for more open trade and declining trade tax revenues.

While Figure 2.1 presents an average across income groups of countries, Figure 2.2 shows the tax structure for each of the African economies in 2007. As this shows, the average shares presented in Figure 2.1 mask considerable variation in the importance of trade tax revenues across countries, with trade tax revenues ranging from single figure shares of total tax revenues to over 50 per cent. This then provides an initial indication of the likely heterogeneity of fiscal impacts from trade liberalisation through an EPA.

Figure 2.2: Tax Structures Across African Countries (% of Total Tax Revenues 2007)



Source: OECD-AfDB (2010, Figure 7).[16]

2.3. Trade liberalisation and Revenue in African countries – Historical Context

Despite the continued reliance of some countries on trade tax revenues, most ACP/African and other developing countries have been engaged in trade liberalisation efforts stretching back over a period of two to three decades. This has been achieved through the multilateral trading system, as well as tariff reductions made as a result of bilateral or regional trade agreements. Reforms to tariff systems have also been made unilaterally or encouraged in the context of 'structural adjustment' programmes.

Table 2.1 outlines historical trends for average applied tariff rates[17], demonstrating that, in line with global trends, tariffs in ACP countries have fallen over time**.** As this shows, applied tariff rates now stand at between one-third and one-half of the levels they stood at in the late 1980s, although the trajectory of tariff reductions has followed slightly different paths. In some countries the fall in tariffs can be attributed to particular reform episodes (for example, there were two such episodes in Mauritius), while in others the process has been more gradual, together in some cases with occasional increases. Furthermore, since the

[16] The importance of trade tax revenues in Lesotho and Swaziland in Figure 2.2 highlights another phenomenon – this is due to the large amount of revenue they obtain as a result of the revenue-sharing formula used in the SACU (the same is true of Namibia). This highlights the importance of taking into consideration complex regional issues – an aspect that is covered in Section 7.

[17] Average applied rates are calculated as the ratio of total tariff revenue to total import values.

wave of reforms in the 1990s, the pace of liberalisation may have slowed down in some countries as applied rates approached a range of around 12 to 15 per cent (in the case of most Sub-Saharan African countries), despite some notable exceptions above and below this range.

Table 2.1: Average Applied Tariff Rates in Selected Countries, 1986-2007

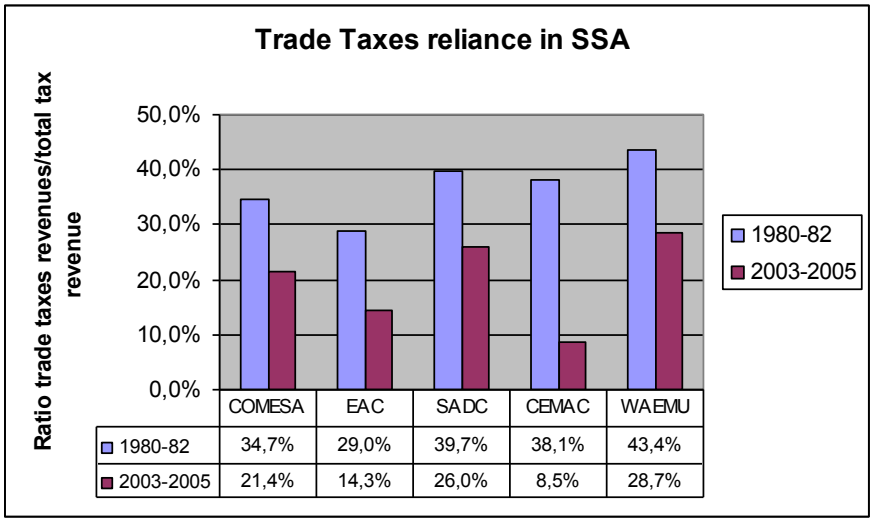
	1986-90	1991-95	1996-2000	2001-05	2006-07
Cameroon	32.0	18.6	18.5	18.8	18.6
Cote d'Ivoire	26.1	22.8	17.9	13.5	13.4
Ethiopia	29.6	30.1	22.9	19.3	16.6
Ghana	18.8	16.6	14.5	12.9	13.0
Kenya	40.3	30.7	17.7	15.6	12.2
Malawi	18.0	24.2	20.5	13.8	12.9
Mozambique	15.6	n/a	15.6	13.5	11.7
Lesotho	n/a	17.4	13.6	10.1	8.9
Tanzania	30.0	28.1	20.8	14.8	12.5
Uganda	25.0	17.0	10.9	8.5	12.1
Zambia	29.9	25.5	14.0	14.3	13.9
Nigeria	32.2	31.7	23.7	21.4	11.7
Jamaica	18.9	19.6	16.2	9.2	8.3
Papua New Guinea	14.2	n/a	17.1	6.5	4.8
Mauritius	36.3	34.7	30.5	19.3	4.3
South Africa	15.2	10.0	8.8	8.7	8.1
India	93.5	53.8	34.1	25.9	14.0
China	39.3	36.5	17.6	11.5	8.8
Brazil	42.0	17.2	15.8	13.8	12.1
EU	8.7	6.5	2.8	2.0	1.7
United States	6.4	5.8	4.0	3.3	2.8
Low Income	33.4	32.7	18.9	14.2	12.1
Middle Income	23.4	16.8	14.2	10.7	8.6
High Inc. Non-OECD	7.6	4.3	7.1	4.8	5.3
High Income OECD	9.2	7.5	4.4	3.5	3.0

Source: World Bank

An interesting phenomenon not captured in Table 2.1 is that although reforms to the tariff system have sometimes been applied 'across the board' to all goods, in most cases, tariffs have been removed on a more selective or sectoral basis. This has fostered the creation of lingering 'tariff peaks' within countries' import tariff schedules. It is possible that the incidence of such tariff peaks – or their relative size – will increase as a result of the EPAs, which require tariffs on all 'scheduled' goods to fall to zero, while tariffs on 'excluded' goods are bound neither by maximum rates, nor by a standstill provision to limit increases above the existing tariff rate.

Unsurprisingly, lower tariffs have meant that the share of trade taxes within government revenue has fallen over time as shown in Figure 2.1 above[18]. While this is true on average, it is also true across specific regions. As far as Sub-Saharan Africa is concerned, looking at figures for the share of trade taxes within total taxes on a regional basis over the period from 1980-82 to 2003-05, Keen and Mansour (2009) found a similar trend of decreasing trade taxes reliance in all regions of the sub-continent, as illustrated in Figure 2.3.

Figure 2.3: Reliance on Trade Taxes, by Sub-Saharan African Region



	COMESA	EAC	SADC	CEMAC	WAEMU
1980-82	34,7%	29,0%	39,7%	38,1%	43,4%
2003-2005	21,4%	14,3%	26,0%	8,5%	28,7%

Source: Based on Table 5 of Keen and Mansour (2009); regional figures are simple unweighted averages of country figures.

Again, however, the story at the country level is more varied. Figure 2.4 presents the importance of trade taxes - excluding any value added tax (VAT) or excises on imports - across countries for the years 2000 and 2008 based on data collected recently for the OECD-AfDB (2010). A data-point on the 45-degree line would represent the hypothetical case where a country has seen no change in its reliance on trade tax revenues between 2000 and 2008. As such, countries below this line have decreased their reliance on trade taxes, and those above the line have increased the share of trade taxes within their tax mix between 2000 and 2008. Figure 2.4 therefore clearly demonstrates the mixed trajectories of countries in reducing their reliance on trade taxes within the tax mix.

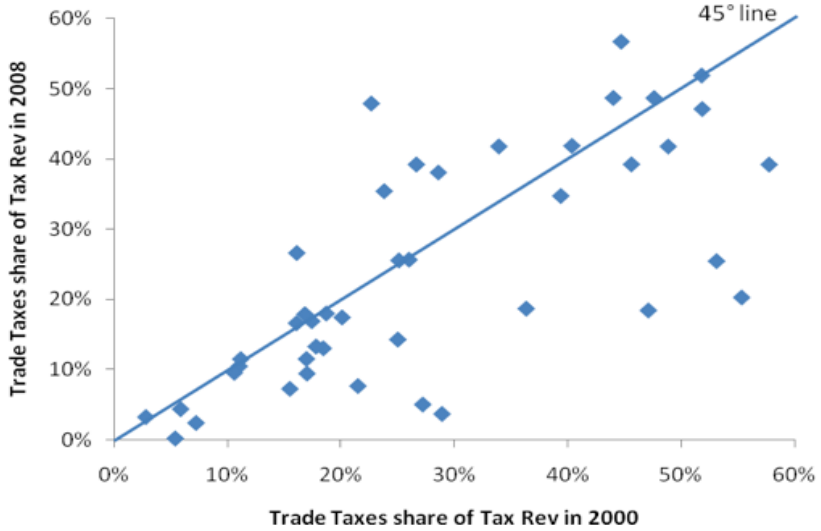
It is clear therefore that although SSA countries have on average tended over time to move away from revenues from custom duties to other forms of taxation, at the individual country level, there are some important differences across-the-board. 16 countries out of the 43 in the sample are more reliant on trade taxes in 2008 than they were in 2000. In some countries, such as Ethiopia and Tanzania, trade tax revenues continue to play a major role in overall revenue generation, while in others such as Mozambique, trade revenues have been, or are becoming, more marginal to the overall tax mix as a result of clear policy shifts resulting in entrenched reforms.

Importantly, those countries with a low reliance on trade taxes in 2000 were more successful in further reducing them by 2008 than those with a high reliance. These latter countries experienced more difficulty in reducing their dependence even from a high level, illustrating the potential difficulties in some countries of altering the tax structure to rely less on trade tax revenues.

[18] See Box 2.1 regarding the use of different benchmarks.

Finally, the data also show that a large number of countries in Sub-Saharan Africa continue to rely heavily on trade tax revenues – 15 out of the sample still generated more than 30 per cent of their tax revenue from trade in 2008.

Figure 2.4: Trade Taxes as a share of Total Tax Revenue in SSA Countries, 2000 vs 2008



Sources: Sample of 43 sub-Saharan African countries (excl. South Africa, Eritrea and Somalia). Based on OECD African Database on Fiscal Performance (2011), OECD-AfDB (2010), Tables 10 and 12).

Box 2.1: Measuring the Importance of Trade Taxes: Which Benchmark to Use?

It is important when considering the importance of trade taxes to carefully select a benchmark. While trade taxes tend to appear as relatively minor as a percentage of GDP and even as a percentage of total government revenue including grants, their importance increases somewhat when considered as a percentage of total government revenue excluding grants or as a percentage of total tax revenues. Arguably, a better benchmark when engaging in a discussion of the fiscal **policy** responses to an EPA and options for tax reforms might be to consider one of the two latter ratios, in order to exclude from one's analysis grant revenue that is less predictable, and ultimately not under the control of the recipient government. As an example, while revenues from import duties and charges make up 6.9 per cent of GDP in Ethiopia, they account for 28.2 per cent of total revenue, and an even larger 37.7 per cent of non-grant government revenue.

In the context of the present study, which focuses mainly on possible options for the reform of tax systems in SSA countries, total tax revenue has here been considered the most appropriate reference benchmark. It is worth noting however, that non-tax revenues excluding grants (such as for instance stamp duties…) are usually relatively low in most SSA countries. Thus, using as a benchmark total government revenue excluding grants or total tax revenue is arguably unlikely to make a significant difference in most cases[19].

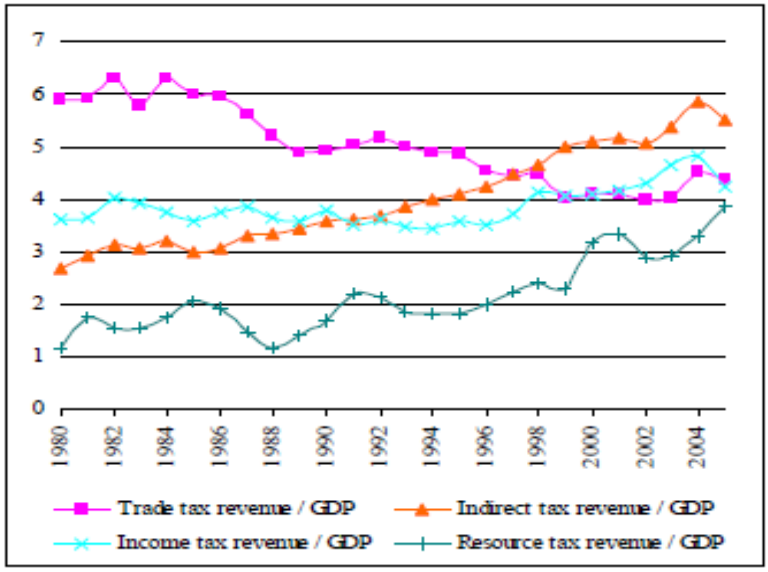
[19] By way of illustration, readers are invited to refer to Annexes 4, which show that the estimated revenue loss to be expected from an EPA, as expressed in percentage of total tax revenue does not differ much from estimation of revenue losses as percentages of total government revenue, excluding grants.

2.4. Recent Experience in Replacing Trade Taxes

As the relative importance of customs duties has declined in many countries over the years, it is important to ask what, if anything, has replaced them. Based on the work by Keen and Mansour (2009), Figure 2.5 shows that at the aggregate level, some of the burden of replacing customs duties has fallen on indirect taxation, most notably the introduction of sales or value added taxes. However, once again, one must remain cautious in the interpretation of these aggregated data. According to an earlier, much quoted study by Baunsgaard and Keen (2005), revenue recovery efforts in developing countries have not met with particularly great success, especially for the lowest income group of countries where "revenue recovery has been extremely weak [...] at best no more than 30 cents on the dollar".

Besides, as emphasized by recent analyses on the topic, an important distinction should be made between resource-rich countries and others, with the former group having benefited from substantial increases in tax revenues on resources with the rise in oil and commodity prices. Figure 2.5 demonstrates the growth of resource tax revenues as far as 2005, while the OECD-AfDB (2010) also expands on this theme and calculates that at the continental level, as much as 12 per cent of aggregated African GDP in 2007 and 2008 was extracted in resource taxes[20]. For the most part, tax revenues in non-resource rich countries have remained stagnant over the past 20 years or so.

Figure 2.5: Tax Structure in Sub-Saharan African Countries, 1980-2005



Source: Keen and Mansour (2009)

Another important conclusion offered by OECD-AfDB (2010) and worth highlighting here is that those countries that have seen their revenue performance improve due to the recent windfall in resource-related revenues, have had little incentive to make progress in introducing broader taxation systems that are more sustainable in the longer term. This finding serves to demonstrate that recent dynamics in the tax structure

[20] See figure 8 of OECD-AfDB (2010) and accompanying analysis. Though both studies arrive at broadly similar conclusions, there are some important differences between the Keen and Mansour (2009) and OECD-AfDB (2010) accounts in both the sample used and the presentation of data. Keen and Mansour have a smaller sample of 40 sub-Saharan countries and present simple unweighted averages, while key parts of the OECD-AfDB (2010) analysis are based on aggregated continental-level data. Given the tendency for the latter to be skewed somewhat by non-EPA countries with higher GDP and tax collection levels (e.g. Egypt, South Africa), it is arguably more relevant for our purposes to look at the Keen and Mansour sample data, as well as individual countries in the African Economic Outlook data.

can have important consequences for the scope and shape of future reforms. Another example of this may be that in those non resource-rich countries where new taxes (such as VAT) have borne the burden of replacing past declines in trade taxes, the scope for any additional rate increases might now be much more limited.

Regardless of the particular tax mix, one fairly notable feature of the more recent history of trade taxes has been that while government revenues tend to be fairly volatile in developing countries, receipts of import tax revenues have been relatively stable in recent years compared with other taxes. As a percentage of GDP, the overall level of imports has a tendency to be fairly constant in the short term. The predictably of tariff revenue is cited as one factor in favour of their continued use. A notable exception is the late 2000s, during which the global financial crisis led to a sharp contraction of demand and hence trade flows, followed by a relatively rapid recovery of trade volume. It may also be that as newer taxes become more entrenched and familiar – leading for example to improved collection capacity – receipts from these taxes will also stabilise.

2.5. Section Summary

To sum up, the above analysis of data on trade taxes in African countries at both national and regional levels has shown:

- an historical trend towards trade liberalisation and the declining relevance of import duties for government revenue since the 1970s, albeit with a wide range of reform experiences and trajectories across regions and countries;
- a more varied picture in recent years, with trade taxes continuing to provide a significant source of income for some African countries, while becoming marginal in others;
- the important contribution that resource taxes have made to improved revenue collection in Africa in recent years, which nevertheless creates a dilemma whereby resource-rich countries seem to have few incentives to diversify their tax base by introducing the broad-based taxes that have been adopted in non-resource countries;
- although on average lost customs revenues have been replaced by indirect tax revenues, developing countries have only recovered a small part of lost revenues.
- the importance of addressing domestic resource policy challenges and examining the options for Africa's tax administrations, including integrating the informal sector into the tax system, administrative capacity, exemptions and 'tax holidays', and transfer pricing (also covered in Section 6)[21].

[21] It is worth acknowledging here the recent work, in particular by the OECD, and the AfDB in their 2010 African Economic Outlook (OECD-AfDB, 2010) that has served to shed further light on issues of tax collection in the African continent, and has in most cases served to reinforce the findings of this study. Since October 2010 a new database on tax collection in Africa has been made available online on the African Economic Outlook website, which promises to be an important resource with which to assess tax structures and policy options for individual countries across the African continent.

3. The Potential Impact of Trade Liberalisation on Fiscal Revenues

The expected impact of trade liberalisation on fiscal revenues can be looked at in static or dynamic terms.

In a static framework, the impact on import tax revenues depends on the direct impact of changes in import prices on import demand, and therefore on trade tax revenues. As customs duties on most (i.e. 'substantially all') imports from Europe decline and are ultimately eliminated under an EPA, EU imports that were previously taxed will enter ACP markets duty-free once an EPA is in place, thus potentially reducing trade tax revenues. Trade liberalisation under an EPA will also make some products cheaper to import from the EU than other countries still subject to customs duties; any trade diverted from non-EPA origins to the benefit of EU imports also contributes to lower customs revenues. A fundamental aspect is therefore the importance of EU imports.

Nonetheless, the degree to which demand patterns change depends very much on the price elasticity of demand at the individual product level and that duties on EU imports do not have to be removed overnight, but over a transition period. The gradual reduction of a specific import duty may generate an increase of imports, which, depending on the elasticity of demand for imports may result in a temporary increase of tariff revenues (see Box 3.1).

Box 3.1: Example of Tariff Rate Declines and Price Elasticity of Demand to Maintain Revenues

The impact of the elasticity of demand for imports and border revenues is illustrated in the following simple example. If a good has a nominal *cif* price of 10 and faces a decline in border tariff from 100 percent to zero, for overall revenues to remain the same requires a doubling of the quantity imported (whether or not excises and VAT are applied, here included for completeness). That is, a price elasticity of demand of -2.0. For certain goods such as vegetables and meat products, such a level of price elasticity may not be uncommon in developing countries while for other products such as industrial inputs, demand is likely to be considerably more inelastic, resulting automatically in declines in revenue with the reduction of import tariffs.

However, countries starting liberalisation from already low rates of protection may not experience such an increase in trade tax revenues from further liberalisation (UNECA, 2004). More generally, even for countries whose initial level of protection is high, there is always a point after which a lowering of tariffs will cause revenues to fall, as the import duty falls to zero. The important lesson though, is that the transition process does matter. The potential temporary increase of trade tax revenues may play a useful role in generating additional resources for financing adjustment measures to trade liberalisation and accompanying domestic reforms, including on fiscal matters.

In this same static framework, overall fiscal revenue may be further affected through effects on the VAT and excise tax bases. VAT and excise taxes on imports are generally collected on a cumulative basis. That is, excises are calculated based on the cif value of the good plus duties, and VAT calculated on the sum of the cif value, plus duties plus excises. If duty revenues remain the same, as in the example, there is no VAT or excise revenue effect. However, as duties approach zero percent, irrespective of the elasticity of demand, the income from the VAT and excise taxes collected on imports and levied at the border will be reduced.

An additional factor, although perhaps at a smaller scale, is pointed out by Fontagné *et al.* (2008). They raise the potential positive impact on tax revenues of substituting imports for domestic sales. If much of the

domestic economy is informal, substituting domestic sales with imports may thereby increase the frequency at which transactions occur within the formal economy and the level of VAT income.

Moving from these static considerations to the dynamic effects of trade liberalisation brings in further ambiguities. Taking into account the impact of trade liberalisation on the domestic economy, standard trade theory indicates large potential gains from trade liberalisation from the changing relative prices of non-tradeable goods, importables and exportables, which provoke alterations to wages and resource allocation towards more productive uses. The increases in productivity ultimately lead to economic growth.

However, the impact will depend on the degree to which the productive sector is import-competing, or import reliant. If domestic producers are principally import-competitors, these may not be able to compete and be forced to reduce sales or close, with a negative impact on employment and incomes, offsetting any gains from lower import prices. As such income, corporate and indirect taxes (e.g. VAT) may also yield lower revenues if income-competing companies go bankrupt and workers lose employment a result of cheaper imports from European producers (Mihretu, 2006).

Further, the reduction in disposable incomes associated with lower employment may lower consumption tax revenues from VAT, while the decline in economic activity may result in further negative effects for support services and reduced expenditure in the wider economy, through a multiplier effect.

Alternatively, if the majority of firms are import-reliant, access to cheaper imports may improve productivity, stimulating growth in the productive sectors and consequently increased domestic tax revenues. Even where the majority of firms are import-competing, increased openness might potentially generate positive competition and production effects, stimulating productivity growth. This would broaden the domestic tax base (notably for income and consumption taxes), thus generating additional (non trade-related) fiscal revenues which may compensate for (some of) the loss of revenues from foregone trade taxes. Further, lower prices leave consumers with increased disposable incomes to spend on other goods, potentially stimulating other sectors.

The ultimate outcome depends on a range of factors, the exact economic structure in a country and the degree of linkages within the economy. Further, the dynamic impacts discussed above depend on the pace, scope and level of trade liberalisation. The longer tariff reductions are phased out, the longer it will take for some dynamic effects to contribute to higher fiscal revenues. Whether the loss of tariff revenues will prevail over the growth effects on fiscal revenues cannot be determined a priori, and thus remains a matter for empirical assessment.

Finally, the pressure on fiscal revenues due to the reduction of import duties may also trigger domestic authorities to undertake substantive administrative and fiscal reforms. If indeed reforms can be undertaken alongside supporting measures for economic growth through aid for trade, it may be possible to improve the efficiency of tax collection and administration and apply this under a new more inclusive “fiscal contract”, generating higher tax revenues and offsetting losses of border revenues. This issue is discussed in more detail in the final section of this study.

4. Different Methodologies for Assessing the Fiscal Impact of EPA Tariff Liberalisation: A Critical Overview

The debate around the impact of EPAs on government revenues in ACP/African countries has been controversial throughout the negotiations. A great deal of the opposition to EPAs focused on the argument that these trading arrangements were likely to have catastrophic effects on government revenues, and therefore on social expenditures geared towards the achievement of the MDGs. From the very beginning of the negotiations, work to quantify the impact of EPAs has therefore been high on the EPA agenda. These quantitative impact assessments have been numerous, but also very diverse in nature, scope and ambitions. They usually provide an estimation of (one or more of) the three following categories of estimates: trade effects (including trade creation, consumption effects and trade diversion), welfare estimates, and fiscal impacts[22]. The latter estimates represent the main focus of this study. As the three categories are interrelated and hard to examine in isolation[23], particular attention is also given (directly or indirectly) to the two former estimates throughout the analysis.

Chronologically speaking, the first attempts to quantify the fiscal impact of EPAs were undertaken by the parties at the start of negotiations on a successor agreement to the Lomé IV Accord bis, when it became clear that a new trade regime would imply some degree of reciprocal liberalisation in order to be WTO-compliant. These very early assessments include those commissioned for each ACP region by the EC in 1998[24], and those contracted by ACP governments themselves in preparation of the negotiations[25]. These studies were rapidly complemented by a second wave of impact studies conducted by independent experts, research centres and civil society organisations throughout the 2000s, during the course of the negotiations.

Given the different waves of analyses that have been conducted to assess the fiscal impacts on particular ACP countries, there tends to be a large amount of variation. In addition to their different geographical and/or sectoral coverage, studies notably differ in their choice of modelling, data source and years, their methodology as well as underpinning assumptions and hypotheses. The variability of these parameters is for both researchers and policy-makers problematic, since, as a consequence, results are not only very different, but also very difficult to compare with one and another.

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22 In addition to the quantitative assessment of the economic and fiscal implications of an EPA, there is also a vast literature assessing the impact of an EPA on regional integration processes, ACP countries' social policies and sustainable development; see notably Faucheux *et al.* (2005).

23 For instance it might be necessary to consider the impact of trade diversion in any analysis of the fiscal impact of an EPA, as it represents a critical indirect source of trade revenue losses, as explained in Section 3 (see for instance, Fontagné *et. al.* 2008, Hallaert, 2010). In the same vein, trade creation, which is from an purely economic point of view welfare enhancing, might sometimes comes against the expansion of intra-regional trade and the objective of enhanced regional integration processes. Also, it should also be stressed that, in some cases, the pursuit of policies/strategies aimed at minimizing revenue losses with the exclusion of some sensitive sectors from liberalisation could in theory come at the cost of some general welfare loss. These considerations are critical for policy-makers who have to balance between different objectives and priorities (e.g. possible trade off between consumers gains and protection of local producers). A comprehensive overview of all these estimates for all African countries can be found in Bilal and Rampa (2006). See also Cali and te Velde (2006), and ECDPM and ODI (2006) for a critical synthesis.

24 Although the studies commissioned by the European Commission in 1998 have never been made publicly available, a summary is provided by McQueen (1999), Bilal (2002) and Bilal and Roza (2007).

25 These impact studies are numerous, notably when one considers the plethora of national studies that have been conducted to assess the fiscal impact of an EPA on the national government budget in some specific countries. These national studies have been for the most part excluded from this study, for reasons explained later in the text.

4.1. Common Methodological Concerns and Issues

Given the variety of different methodologies used at various times by different researchers to approach the problem of EPA related fiscal-losses, it is useful to try to identify some common themes.
The following list of key issues covers data usage and periods examined, the different models employed by researchers, the different ways of measuring tax revenues as the starting point for liberalisation, as well as competing conceptions of fiscal losses. Finally there is the more recent issue of the need to incorporate the actual liberalisation commitments of EPA signatories, both in terms of the scope and pace of tariff reductions.

4.1.1. Choosing the 'right' data: data years and level of aggregation

First of all, it is worth noting that the choice of data matters a great deal in the results and their interpretation. The data years on which estimates are based are critical elements in explaining some of the differences in results one may find across studies. As emphasised in Section 2, the tax mix has varied over time in African countries, as they have been involved in tax reforms and trade liberalisation commitments either as part of regional integration processes or in the context of bilateral and/or multilateral trade negotiations. Early impact assessment studies can in some cases only represent rough approximations of the expected tariff revenue losses from an EPA as they are limited by the data available at the time[26].

By way of illustration, the study by Milner *et al*. (2005) uses data from the late 1990s. Yet, since then, the countries under review (Tanzania, Kenya and Uganda) have significantly reduced their tariff rates. As the authors themselves recognize therefore, their estimations should be interpreted as an upper bound, with current losses being expectedly "considerably lower" (Milner *et al*. 2005, p344).

Unsurprisingly therefore, using the same methodology as Milner *et al.* (2005) but 2005 data, Zgovu and Kweka (2007) find that the revenue impact of an EPA for Tanzania would be almost four times less than originally found by Milner *et al.* (2005), as shown in Table 4.1. This can partly be explained by the changes in the tax mix that have occurred over the years 1990s and early 2000s, as shown in Table 4.2.

Table 4.1: Summary of Revenue Effects of an EPA in Tanzania as calculated by two studies using approximately the same methodology

	Milner *et al.* (2005)	Zgovu and Kweka (2007)
Tariff loss (in bn of Local Currency)	-65.4	-54.81
% of total tariffs Revenue	-72.8	-52
% of total Tax Revenues*	-13.78	-3.71
% of Total Government Revenues*	-12.82	-3.39

Note: *Estimates in terms of total tax revenues and total government revenues have been recalculated using the AEO Fiscal Performance Database (2011), using the year on which the estimates are based in their original studies, i.e. 2004 for Zgovu and Kweka (2007). Due to unavailability of data for the year 1995, conversion have been made using 1996 data for Milner *et al.* (2005)

Source: Milner *et al.* (2005) and Zgovu and Kweka (2007).

[26] In this respect, it should be pointed out here that we have chosen in this study not to classify studies chronologically, as among the so-called early literature (1998-2005) some studies tend to be methodologically thorough (see for instance Busse and Grossman, 2004).

Table. 4.2: The importance of Trade Taxes in Total Government Revenues in 1996 and 2004 (in billions of local currency)

	Trade Taxes [A]		Total Government Revenues (excl. grants) [B]		[A]/ [B] (%)	
	1996	2004	1996	2004	1996	2004
TZ	154.08	351.43	510.2	1616.51	30.20%	21.74%

Source: OECD-AfDB (2010)

Another data issue is highlighted by the same two studies, namely the level of data disaggregation. The significant difference in terms of revenue effects between the two studies here could also be partly explained by the difference in data aggregation used by the two studies. While Milner *et al.* (2005) have aggregated trade flows at the HS-2 digit levels (sometimes even from HS-8 Digits), Zgovu and Kweka (2007) have chosen to use a more disaggregated level, using data provided at the 6-digits categories of the HS. As emphasized by Busse *et al.* (2005), models which run with low level of disaggregation are likely to overemphasize or under-emphasize the share of EU imports, which in turn will impact on the calculations of the trade effects (notably trade diversion) and consequently of the revenue effects as well. The level of aggregation/disaggregation chosen is therefore not only critical to determine the list of potentially sensitive products, but it also has an indirect impact on the estimation of tariff revenue losses.

Using different data may thus well lead to different results. Of course the choice of data (years and level of aggregation) is partly determined by the availability of those quality data and is therefore often imposed on the researcher. Bearing this in mind, one would be tempted to argue that - in principle - the most recent the study, and the higher the disaggregation level, the more accurate the results. The reality is however much more complex, since other critical factors need to be factored in.

4.1.2. Choosing the 'Right' Model: Partial vs. General Equilibrium Assessments

In addition to data issues, the model selected by the analyst also impacts on the estimates. While some studies reviewed here employed General Equilibrium analyses, others have undertaken quantitative exercises based on the use of partial equilibrium modelling exercises or econometric analyses (see Box 4.1). Both have their merits and shortcomings that have already been extensively reviewed in the literature[27].

Computable General Equilibrium (CGE) models are in theory particularly valuable as they capture both the direct and indirect effects of the interactions between sectors and factor markets, allowing a comprehensive assessment of trade and welfare impacts following trade liberalisation. Some CGE models also allow a dynamic assessment of the fiscal losses. However, when looking at African countries, where the informal sector can be quite big, general equilibrium models have their limits, as they often rely on various assumptions that assume the market to be perfect and generally ignore the presence of an informal sector (Gallezot and Laborde. 2007). They are moreover relatively difficult to conduct for developing

[27] For the literature on the subject, please see Melo (1988) and Acemoglu (2010), and in the context of EPAs, see UNECA (2005), Milner *et al.* (2005), Keck and Piermartini (2005 and 2008), Gallezot and Laborde (2007) and Fontagné *et al.* (2008).

countries, as they require demanding data that are often not available at a disaggregated level, and therefore risk missing important sector-level impacts (Fontagné *et al.,* 2008).

Box 4.1: The difficulty of comparing studies in view of the variations in modelling simulation tools and econometric parameters

Partial and general equilibrium models have different analytical objectives. While general equilibrium (GE) analyses take the whole economy with interacting markets as their object of study on the one hand, partial equilibrium (PE) analyses look at a particular sector of the economy. As such, their methodologies and underpinning assumptions vary greatly and both models are likely to lead to different results that are not directly comparable.

Even when using the same model type (PE or GE), studies may differ in their outcomes. Indeed, among both types of models there are a range of decisions that can be made, most of them relying on different assumptions that are likely to impact the final results in various directions. While some have used the WITS/SMART PE model, such as UNECA (2005), or Tekere and Ndlela (2002), others have preferred the World Bank's Tariff Reform Impact Simulation Tool (TRIST); not to mention those that have developed their own simple partial equilibrium modelling exercise in order to approximately quantify the revenue and welfare effect of an EPA. This is the case for instance of the study of the fiscal impact of an EPA in EAC countries by Milner *et al.* (2005) – which has served as a reference model in many subsequent studies (see for instance, Milner *et al.* (2007) or Zgovu and Kweka (2007).

It should be highlighted here that the number of diverse models and model types that are available to and used by researchers clearly renders any direct comparison of results difficult, not to say methodologically unreasonable, since across models, data sources usually vary. As each dataset tends to make use of its own sampling and data collection method, differentiated figures are often generated, rendering therefore the comparability exercise difficult (see Annex 2 for more information in this respect).

In the same vein, another reason for caution, when comparing and interpreting results lies in the different economic parameters that models take as assumptions. The value of the elasticities (both import demand elasticities and substitution elasticities) are for instance an important element of impact modelling[28] which yet vary greatly across studies with potentially large effects on the estimated impact of trade liberalisation on trade flows and thus on revenues.

Since all these factors need to be taken into account when interpreting results, we have in the context of this study taken stock of these critical parameters for each of the studies considered. These details can be found by region in the Annex document (Annex 5).

In contrast, although partial equilibrium models do not capture indirect feedback effects, they do allow analysis of trade in commodities at a highly disaggregated level. This is important for policy-makers and officials in charge of the negotiations, given the possibility for ACP/African countries to exclude certain products from liberalisation in the context of an EPA. A high level of disaggregation in the modelling exercise facilitates identification of those sectors and/or products likely to be adversely impacted by an EPA. These elements of information (which can not be easily inferred from rules of thumb) are essential to policy-makers (i) to design policies mitigating those sectoral adjustment costs in the short to medium term, (ii) to define the list of sensitive products to be excluded from liberalisation, and (iii) to understand the political economy behind the support and/or opposition to EPAs (Brenton *et al.,* 2009).

[28] As emphasized by Vollmer *et al.* (2008), price elasticities, in addition to being critical in determining *ad valorem* equivalents of quotas or other non-tariff barriers, are an important element to assess the consumption effect following the removal of custom duties.

Yet, when it comes to measuring the fiscal losses from EPAs, partial equilibrium, and notably studies of static losses, are not built to consider the potential dynamic growth effects relating to the widening of markets from trade liberalisation (Bilal and Roza, 2007; Hallaert, 2010). As previously explained, economies of scale and efficiency gains that may be triggered by an EPA could indeed induce economic growth, thereby broadening the tax base and dampening the negative impact of trade liberalisation on the fiscal balance of ACP economies. EPA impact studies usually ignore these dynamic effects that can be expected (although in a medium to long-term timeframe), leading therefore to a potential overestimation of revenue losses. This shortcoming is in fact inherent to all static models (as thorough as they may be methodologically) and must be taken into account in these analyses.

All models have their strengths and weaknesses when compared to one another. There is no 'right', and *a fortiori* no 'wrong' model, *per se*; the choice of the model type and the modelling simulation tool used to assess the fiscal loss deriving from trade liberalisation shall depend on the initial objectives of the analysis.

But beyond the choice of the simulation model, looking more in detail at the methodology used by studies in their attempt to quantify the trade, welfare and revenue effects of an EPA, some concerns quickly arise. The remainder of this section highlights these by focusing notably on static partial equilibrium analyses, which seem to represent the bulk of EPA impact assessments[29].

4.1.3. Measuring the 'Tax Take': Statutory Tariffs vs. 'actually collected' tariffs and imports

From analysing the literature, there is reason to believe that some studies may have exaggerated revenue losses due largely to unrealistic hypotheses and modelling protocols. On close inspection, a number of fundamental methodological flaws are apparent in some models. One common methodological shortcoming concerns the nature of the "tariffs" factored in the modelling exercise to measure the fiscal impact.

In many static models, 'hypothetical revenue loss' is calculated by multiplying the official customs *ad valorem* duty by the value of imports in the reference year(s) (Bilal and Roza, 2007; Bilal and Stevens, 2009). In the same vein, when the effects of trade diversion are taken into consideration, the associated revenue effects are similarly obtained by multiplying the current tariff on imports from the EU by the volume and average value unit of imports from the rest of the world (see methodology used by Milner *et al.*. 2005) and broadly taken up by other authors after them).

One of the variables used to calculate the expected revenue loss is therefore the current tariff on imports. Models seem however to have used different kinds of tariffs.

To illustrate, Table 4.3 provides a comparison of three different studies conducted at different times. This table shows that using data on *nominal statutory* tariff rates instead of more readily available *bound* tariffs – which is the exception rather than the rule in the early literature – Karingi *et al.* (2005) and UNECA (2005a) - gives a more optimistic picture than previous studies on the subject. In the case of Tanzania for instance, an EPA would induce a revenue loss of approximately €32.5m – some four times less than what was found by Tekere and Ndlela (2002) two years earlier.

[29] For dynamic CGE models, please refer to Fontagné *et al. (*2008), Keck and Piermartini (2005).

Table 4.3: Comparison of estimates on the fiscal impact of EPAs

	in mio. USD		% GDP*		% customs revenue		% fiscal revenue	
	A	*B*	*A*	*B*	*A*	*C*	*A*	*C*
Mozambique	-7.6	-29.2	-0.2	-0.7	-9.5	-23	-1.5	-5.2
Tanzania	-32.5	-146.6	-0.3	-1.5	-25.9	-30 / -73**	-2.3	-8.2 / -20**

Notes: * Computations, GDP data are from World Bank (2005);
** First figure relates to losses if Tanzania would join an SADC-EU EPA, second figure is the estimate if Tanzania were to join an EAC-EU EPA.

Sources: (A) UNECA (2005a); (B) Tekere and Ndlela (2002); (C) studies commissioned by the EC in 1998, as reported by Bilal (2002). Original table taken from Bilal and Roza (2007).

Moreover, studies wrongly assume that the rate of revenue collection is perfectly efficient, that is, that all imports are properly taxed[30]. However, as emphasized in Bilal and Roza (2007) and Busse and Grossman (2004), there are several reasons why all imports duties are not actually levied. Governments may decide to grant certain companies a tax holiday, exempting them from the obligation to pay import duties for a certain period; various other trade tax breaks and exemptions may also be granted, such as in export-processing zones; red tape, corruption and smuggling can also cause the revenue collection to be lower than expected. For all these reasons, it would therefore be more accurate to use data on "*taxable* imports" instead of "*total* imports" (Hallaert, 2010), i.e. in other terms, actually collected tariffs and not statutory tariffs, as collection rate efficiency can be quite low in some ACP/African countries.

To tackle the problem of using nominal statutory rates, Busse *et al.* (2004) attempt to determine the collection efficiencies for West African countries and find them to range from less than 30% for Ghana to 90% for Senegal, as presented in Table 4.4. The discrepancies between the estimates for revenue loss by UNECA (2005a) and Busse and Großmann (2004) are partly explained by the fact that UNECA (2005a) did not take collection efficiencies into account, leading in this case to an overestimate of revenue losses. Hence, the fiscal impact of an EPA for ACP/African countries would be expected to be lower than that estimated in studies which do not consider custom duty collection efficiency.

Table 4.4: Collection efficiencies and their impact on revenue losses

Country	**Collection efficiency[a] in 2001**	**Revenue Loss (mio. USD)**	
		Busse[a]	**UNECA[b]**
Benin	77%	-27.6	-39.5
Burkina-Faso	61%	-17.5	-22
Cote d'Ivoire	69%	-82.9	-112.2
Ghana	29%*	-90.8	-193.7
Guinea-Bissau	38%	-2.2	-2
Mali	44%	-16.6	-33.1
Mauritania	73%	-11.8	-14.6
Niger	53%	-6.6	-20.5
Nigeria	80%*	-487.8	-426.9
Senegal	90%	-87.9	-80.2
Togo	77%	-12.9	-35.5

Note: * 2000. / *Sources*: (a) Busse and Großmann (2004); (b) UNECA (2005a).

[30] This is also the case with quantitative assessments made through the World Integrated Trade Solution (WITS) software, which only provides statutory rates (Brenton *et al*, 2007).

Going even further than Busse *et al.* (2004), who factored in collection efficiencies using aggregate exemption rate, studies based on the World Bank's TRIST models take account of the fact that in practice, exemption rates vary not only depending on the products considered but also depending on the source of imports. In order to have the most accurate results in relation to the EPA therefore, one should ideally consider the collection efficiency rate on imports from the EU and across products. Table 4.5 shows that in some circumstances the collection efficiency from the EU27 might differ significantly from the overall collection efficiency (Brenton *et al*. 2007).

Table 4.5: Collection efficiency in four COMESA countries

	collection efficiency from EU27	**overall collection efficiency**
Ethiopia	52,8	71,5
Madagascar	73,9	76,9
Malawi	56,1	72,5
Zambia	77,4	65,5

Source: Brenton *et al.* (2007).

The above discussion suggests that the choice of using bound or even statutory tariffs (and not taking into account collection efficiencies) leads to an overestimation of the potential customs revenue losses to be expected from an EPA. This is well illustrated by Brenton *et al.* (2007), whose analysis quantitatively assesses the importance of tariff exemptions in influencing the results of the studies aimed at evaluating the revenue impact of an EPA. Their study shows that, using statutory tariffs, instead of actually collected tariffs, leads in most cases to a doubling of total tax revenue loss, a substantial overestimate of the fiscal impact.

As such, the authors find that estimated losses in total tax revenue in the four countries covered by the study ranging from 4 per cent (Madagascar) to just under 1 per cent (Malawi). Strikingly however, this analysis shows that if all tariff exemptions were included in the calculations, the loss of revenues would be marginal for both Ethiopia and Madagascar and both Malawi and Zambia would in fact experience an *increase* of tax revenues, respectively of 3.3 per cent and 2.3 per cent.

Table 4.6: Change in Total Tax Revenue for an EPA (elimination of all tariffs on imports from EU) - As highlighted by Brenton *et al. (2007)*

	Calculated based on applied tariffs	calculated based on statutory tariffs	based on applied tariffs with removal of all tariff exemptions
Ethiopia	-3,4	-6,4	-0,8
Madagascar	-4,1	-5,6	-1,7
Malawi	-0,8	-1,1	3,3
Zambia	-1,7	-2,3	2,3

Source: Brenton *et al.* (2007)

Except for Madagascar, the revenue impact found by Brenton *et al.* (2007) is therefore far less than that found by earlier studies (see Table 4.7 and Annex 5). These results are all the more interesting since the authors used the World Bank's Tariff Reform Impact Simulation Tool (TRIST) (see Box 4.2), which is based on the most disaggregated data (HS 8 digit) and uses a partial equilibrium framework which not only

considers actually collected tariffs, but also the implications of custom tariffs reforms for VAT and excise revenues, thereby providing a more comprehensive and accurate picture than most of the literature on the subject, as explained in the next sub-section.

Table 4.7: Revenue effects of EPAs in percentage of total tax revenues

	Brenton *et al.* (2007)	Karingi *et al.* (2005)*
Ethiopia	-3,4	-6,7
Madagascar	-4,1	-1,7
Malawi	-0,8	-1,8
Zambia	-1,7	-2,1

Note: * as calculated by Brenton *et al.* (2007).

Source: Brenton *et al.* (2007).

Box 4.2: The World Bank's Tariff Reform Impact Simulation Tool (TRIST)

The World Bank's TRIST tool is an Excel-based model which provides partial equilibrium analysis of the short term impacts of tariff reform on tax revenue, imports, and protection, and which additionally determines the impact of such reforms (in terms of both employment and output) on the different sectors of an economy.

Based on the most disaggregated data (HS-8), the tool improves most of the existing models in many ways:

- First, it is based on revenues actually collected at the tariff line level and does not simply apply statutory rates and recorded trade flows in the equation. Simulations using TRIST take therefore into consideration the collection efficiency and the importance of exemptions granted to various institutions, including the government and international organisations, and concurrently captures the effects of rules of origins.
- TRIST provides estimates of the impact of trade liberalisation on total fiscal revenue (including VAT and excise), whereas most studies tend to overstate revenue effects by considering shortfalls in tariff revenue only.
- In some circumstances, when data is available, domestic substitution effects between imports and domestic production are factored in.
- Revenue results are usually given at the product level, allowing policy-makers to easily identify which sectors are likely to be more adversely impacted compared to others.
- Users can define their own liberalisation scenario, and can also choose the elasticity parameters they wish.

Source: World Bank (http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/TRADE/0,,contentMDK:21537281~pagePK:210058~piPK:210062~theSitePK:239071,00.html) and Brenton et al. (2009).

4.1.4. Defining what is Lost: Tariff Revenue Loss vs. Broader Fiscal Loss

In terms of measuring the fiscal impact of the EPAs, the issue of defining what is actually lost to the government – i.e. the proximate and easier-to-measure tariff losses versus the broader fiscal loss – is an important one. Yet apart from a few exceptions (see Gallezot, 2007; and Gallezot and Laborde, 2007; and studies based on the TRIST models), empirical analyses have generally confined themselves to estimating the potential size of tariff revenue loss.

Yet, as discussed in Section 3, tariff revenue losses only represent a part of the fiscal revenue impact of an EPA. Trade liberalisation will also simultaneously impact revenues from other taxes, through many channels and in a direction that cannot be presumed *a priori* (Brenton *et al.* 2007). As discussed above, many countries apply a VAT, sales tax and/or excise duties at the border. As a result of liberalisation, VAT and excise may therefore be collected on a lower fiscal base, thus increasing the pressure on total tax revenues, as well as total government revenues. However, the consumption and trade creation effects generated by trade liberalisation with the EU could raise demand so that additional revenues would be levied at the border through the collection of internal taxes, such as VAT.

Estimating solely the tariff revenue loss is therefore likely to cover only one part of the story, potentially leading to a different picture, as illustrated by Table 4.8 in the case of Central Africa. It shows, based on the results found by Gallezot and Laborde (2007), that the effects of domestic sales and excise taxes levied at the border have an overall positive impact. Studies that ignore these additional effects might misestimate the total revenue loss an EPA is likely to induce.

Table 4.8: Tariff Revenue losses and Total Fiscal Losses in Central Africa

	Total Tariff Loss (incl. Trade Diversion effects)	Total Tariff loss- % Initial Revenues	Total Fiscal Loss (incl. excise, VAT)	Total Fiscal Loss - % of initial revenues	Effect of "domestic taxes": border excises and VAT/Sales taxes
Central Afr Rep	-5.393	-60.40%	-4.60	-17.40%	0.794
Cameroun	-142.26	-65.60%	-117.75	-21.9%	24.510
RDC	-33.433	-47.30%	-26.02	-9.8%	7.415
Chad	-15.467	-55.50%	-13.48	-20.6%	1.986
Congo	-66.282	-53.80%	-58.14	-22.5%	8.143
Eq. Guinea	-46.17	-47.30%	-37.26	-20.0%	8.909
Gabon	-75.87	-74.80%	-64.68	-25.8%	11.193
Sao Tomé&P.	-5.159	-72.80%	-4.59	-28.8%	0.568
Total CA	-390.031	-62.00%	-326.52	-20.3%	63.516

Note: Unless specified otherwise, all estimates are in Millions of Local Currency Unit.
Source: Gallezot and Laborde (2007).

Moreover, as stressed by Brenton *et al.* (2007), what is of interest to policymakers is total revenues rather than just tariff revenues. Looking at the total tariff loss as a percentage of total tariff revenues is therefore a relatively imperfect indicator of the impact of an EPA. If for some countries, custom revenue losses are likely to be significant, such losses will not necessarily endanger the fiscal balance of those countries, whose dependence upon EU imports as a share of total government income is low. The scope and the importance of the revenue loss will depend on the initial importance of custom revenue (from the EU) in total public revenue. As such, one should not forget that as most ACP/African countries have worked over time on diversifying both their source of imports and source of revenues, one might need to consider early studies (which use older data on trade and tariffs) with caution (see Section 4.1.1).

4.2. Incorporating Actual Liberalisation Commitments

One final key shortcoming that is common to all pre-2008 quantitative assessments is that they are all *ex ante*, based on 'blind' assumptions on the scope and speed of trade liberalisation. EPA negotiations were still underway at the time these studies were conducted, forcing analysts to base their predictions on bold scenarios regarding the magnitude of the tariff cuts, the list of sensitive products excluded from the liberalisation, and the transition period (Bilal and Roza, 2007; Hallaert, 2010). Yet, both the exclusion of sensitive products from the liberalisation list and the schedule of the tariff cuts are key factors affecting the magnitude of customs revenue losses, and their impact on government finances. These are examined in turn.

4.2.1. Magnitude of the Market Access Offer

Under EPAs concluded by 2008, ACP countries have been allowed to exempt up to 20 per cent of their EU imports from liberalisation (either as a proportion of tariff lines or of the value of goods). The WTO requirements do not impose any specific threshold regarding which products to exclude from liberalisation. As a result, the possibility of defining a list of sensitive products can make a significant difference in total revenue losses to be expected from an EPA as it grants ACP/African countries the possibility to exclude the most-revenue sensitive products from liberalisation and to minimize thereby fiscal losses. The most striking illustration of this is Malawi, for which TRIST simulations (World Bank, 2009c) have found that an EPA which would include a 80 per cent sensitive list comprising the most revenue sensitive products would generate a total fiscal revenue loss of 0.0006 per cent (see Table 4.9)

Table 4.9: Revenue implications of an EPA according to TRIST models (% change in Total Revenue)

	data year	Full EPA	EPA with 80% sensitive list*
Mozambique	2008	-4,7	-1,7
Tanzania	2008	-3,9	-0,5
Malawi	2007	-2,4	0
Ethiopia	2005	-8,3	-5
Zambia	2007	-3,7	-1,3

Note: * The list of sensitive products has been defined in these models as the one comprising the most revenue-sensitive products.
Source: World Bank (2009a-e)/Results are taken out of the TRIST Briefs all compiled in Hamilton (2009).

Of course, fiscal considerations are not necessarily the key factor in defining the list of sensitive products. Industrial policies are also likely to play a role in deciding which products will be exempted from liberalisation, as is lobbying (Hallaert, 2010; 15). In some cases, such as Tanzania, the list of sensitive product had to be consolidated regionally thus potentially reflecting some compromises at the regional level (see Section 7). In the case of Madagascar, which has not been constrained by the necessity to consolidate regionally its list of sensitive products in the context of its IEPA, some studies have found that only 28% of the lines safeguarded were lines that potentially minimized revenue losses from total import taxes (Hallaert, 2010), reflecting protectionist/preventive purposes (Hallaert, 2010; Bilal and Stevens, 2009). It should not therefore be automatically assumed that the list of sensitive products is the one minimizing revenue losses.

Moreover, the desirability of such a minimization of fiscal revenue losses can be questioned, as the latter is not the only political consideration to be taken into consideration when designing trade policies. Defining the list of sensitive products so as to minimize revenue losses might risk missing out on the full, potential benefits of trade liberalisation. In a recent study aimed at quantifying the welfare effect of trade

liberalisation based on the analytical model developed by Milner *et al.* (2005), Vollmer *et al.* (2008) show, for instance, by examining both a full liberalisation scenario and one based on the liberalisation schedule actually agreed by the countries, that protecting some custom revenues can indeed come at the expense of welfare gains.

In any case, it is clear that the possibility of excluding some goods from liberalisation will mitigate the loss of tariff revenues. Because most of the studies on the fiscal impact of EPAs are based on "big bang" scenarios assuming full liberalisation from ACP/African countries, it is important to look at results found by those studies as upper-bound/overestimated impacts.

4.2.2. Pace of liberalisation

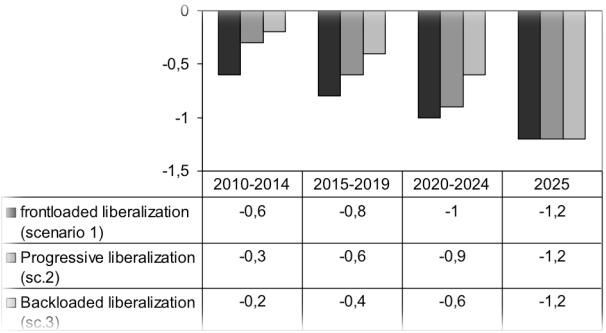
Secondly, by assuming overnight liberalisation, studies often fail to take account of the gradual process by which trade barriers are gradually phased down over time. As discussed above, the pace of liberalisation may affect the magnitude of revenue losses and their impact on government finances, particularly in the first years of liberalisation. In a recent IMF Country report prepared for the periodic consultation with Senegal, the fiscal impact of a substantial but gradual liberalisation in the context of an EPA was assessed under three liberalisation scenarios (Segura-Ubiergo, 2008)[31]. The results obtained by the IMF staff are reproduced in Figure 4.10.

In the first scenario (frontloaded trade liberalisation), the country would face an immediate annual revenue loss close to 3% of total revenue, a significant shock for the country, particularly following the global financial crisis and current economic slowdown. The second and third scenarios, corresponding respectively to progressive and backloaded liberalisation commitments, would, on the contrary, lead to the spreading out of revenue losses over time, thus leaving the country the time to pursue the necessary reforms to shift from customs duties to alternative tax regimes, "so that additional revenue losses can be comfortably absorbed by the time the next phase of trade liberalisation begins" (Segura-Ubiergo, 2008). This leads the IMF staff team to conclude that the potential revenue losses for Senegal could well be manageable if EPA-related trade liberalisation is implemented gradually over a period of at least fifteen years.

Similarly, in their study assessing the potential welfare effects of a trade agreement between the EU and nine African countries, Vollmer *et al.* (2008) use actual tariff liberalisation schedules negotiated between the parties in the context of an EPA, with the results shown in Table 4.11. These show that while the revenue effect of an EPA might be significant for many countries in Africa, those losses will be spread over time. For Cameroon for instance, the revenue loss in the short term will be almost 40 times less than the total loss at the end of the liberalisation period. Similarly, while, according to this study, Ghana will lose more than US$200million of revenue in the long run, in the short term, those losses will be about 16 times less significant.

[31] The three scenarios - frontloaded/progressive/backloaded scenarios - considered a 80% liberalisation commitment with a maximum revenue loss of 1,2% of GDP at the end of the liberalisation period and distributed (respectively) as followed: 50/25/20% during 2010-2014; 66/50/40% during 2015-19; 83/75/60 during 2020-24 AND 100% beyond 2024 (Segura-Ubiergo, 2008)

Figure 4.1: Average Annual Revenue Loss for Senegal by Liberalisation Scenario, 2010-2025 (as a percentage of GDP)



Source: Segura-Ubiergo (2008).

Table 4.10: Welfare and Revenue Effect of an EPA – Short term vs. Long term effects

	Transition period (years)	Total Welfare effect in % (of total trade volumes)		Revenues (in 1000US$)	
		A	B	A	B
Bostwana	10	5.35	5.35	-1905.1	-1905.1
Cote d'Ivoire	17	0.03	-0.03	-42732.96	-120689.2
Cameroon	18	0.01	5.42	-3064.91	-120378.9
Ghana	17	-0.04	-0.66	-11960.81	-202055.1
Kenya	28	-0.36	-0.5	-78259.52	-117753.8
Mozambique	13	2.02	2.17	-4868.95	-5681.96
Namibia	10	10.07	10.07	-2354.41	-2354.41
Tanzania	28	-0.55	-0.35	-44151.47	-61453.07
Uganda	28	0.01	-0.2	-8585.84	-38126.76

Noes: A: Short-run Effects of a Tariff Reduction according to the interim agreements (after five years).
B: Long-run Effects of a tariff reduction according to the interim agreement (end of transition period).
Source: Vollmer *et al.* (2008)

4.3. Lessons from Analyses Using Actual Liberalisation Commitments

As explained, two significant factors are likely to affect the profile of revenue loss: the timing of tariff reductions, as well as the depth of the cuts being made at each stage. Details of commitments taken at the level of individual goods (i.e. at each tariff line) are now publicly available: a summary of the schedules submitted in 2007 is presented in Table 4.12.

With regard to the tariff liberalisation commitments within the various EPAs that have been concluded, Table 4.12 shows that there are wide differences across the different EPAs in both the level and pace of liberalisation.[32] Analyses of the different commitments taken across ACP/African countries have also shown that there is also no particular discernable pattern in the liberalisation commitments, for example when comparing countries at different levels of development and GDP[33].

[32] See Bilal and Stevens (2009) and Kennan *et al*. (2009).
[33] Bilal and Stevens (2009).

Table 4.11: (Interim) EPA liberalisation schedules
(cumulative value of imports from the EU, to be liberalised by the specified year)

	2008	2010	2012	2013	2017	2018	2022	2023	2033	total
Fiji	24%			37%		78%		81.5%		**81.5%**
PNG	88.1%									**88.1%**
EAC		64%						80%	82%	**82%**
Comoros				21.5%			80.6%			**80.6%**
Madagascar				37%			80.7%			**80.7%**
Mauritius	24.5 %				53.6%		95.6%			**95.6%**
Seychelles				62%	77%		97.5%			**97.5%**
Zimbabwe			45%				80%			**80%**
BLNS		86%								**86%**
Mozambique	78.5%									**80.5%**
Cameroon						50%		80%		**80%**
Cote d'Ivoire						69.8%		80.8%		**80.8%**
Ghana						62.24%		80.48%		**80.48%**
Caribbean	52.8%			56%		61.1%		82.7%	86.9%	**86.9%**

Source: Compiled from European Commission.

Yet, it is noteworthy that if most ACP countries have agreed to liberalize a substantial share of EU imports by the end of the first liberalisation period, in most cases this liberalisation concerns mainly low tariffs products. For those countries, the impact in terms of fiscal revenue is therefore likely to be rather limited in the short term.

In order to take full account of all of the different dimensions of the EPA, any quantitative assessment of the fiscal impact of an EPA on ACP/African economies therefore needs to take into consideration at the country level not only the scale and speed of liberalisation, but also the level of pre-EPA tariffs applied to the items being liberalized, as well as the capacity of the EU to export such products.

Tables 4.13 and 4.14, both taken from Bilal and Stevens (2009), show the shares of imports and trade-weighted average tariffs on goods to be liberalized in the early years of implementation. Here, there are some important distinctions to be made amongst the liberalisation schedules of different EPA signatories.

Whereas for example EAC countries do not have to liberalize high level tariffs for over six years and benefit from a 20 year implementation period, others, such as Côte d'Ivoire[34] were due to liberalize most of their tariff lines (including positive tariff items) in the early years of implementation. Not only does the pace of liberalisation in the case of Côte d'Ivoire appear significantly front-loaded, but the country has a trade-weighted average tariff on items to be liberalized in the first tranche of 11,2%. The fiscal (and political) cost of an EPA for this country would therefore likely to be significant. Bilal and Stevens (2009) estimate that the hypothetical revenue loss would have been around US$200m, with 39% lost in 2009 and more than 70% by January 2013. Mozambique is in a similar situation. The latter country has indeed a trade-weighted average tariff on items to be liberalized of around 5% and shall liberalise more than 70,5% of EU imports in the first tranche liberalisation.

The key point is that liberalisation schedules are country-specific, as are the speed and scale of transitions that will be required as a result of the EPAs. All of these factors will influence the expected revenue impact in addition to the methodology employed.

Table 4.12: Summary of 'hypothetical revenue' loss in EPA countries

Country	**Hypothetical revenue ($000) on:**		**1st tranche share**
	All items being lib.	*1st tranche items*	
ESA			
Comoros	3,508	n/a	n/a
Madagascar	32,643	13,631	42%
Mauritius	18,074	3,858	21%
Seychelles	142,874	141,748	99%
Zambia	12,710	4,706	37%
Zimbabwe	14,531	6,906	48%
Central and Western Africa			
Cameroon	99,220	20,472	21%
Côte d'Ivoire	196,320	76,983	39%
Ghana	88,761	6,631	7%
EAC		*2nd tranche items*	**2nd tranche share**
Burundi	3,767	2,915	77%
Kenya	49,572	31,467	63%
Rwanda	4,835	2,652	55%
Tanzania	24,876	16,607	67%
Uganda	12,639	8,394	66%

Source: Bilal and Stevens (2009).

[34] It is worth noting that while Côte d'Ivoire has signed its own interim EPA with the EU in 2008, it has not started its implementation. Besides, the liberalisation schedule of this country might well be modified in the near future, should an agreement be reached at the regional level.

Table 4.13: Relative scale of the first tranche liberalisation

	1st-tranche liberalisation dates	Share of imports	Average trade-weighted tariff
Cameroon	2010-2013	24.5%	8.1%
Côte d'Ivoire	2009, 2010, 2011, 2012, 2013 (1 Jan.)	54.1%	11.2%
Ghana	1 Jan. 2013	8.7%	5%
EAC	2010	Overall: 50% Individually: 41.5–52.3%	0%
ESA Comoros Madagascar Mauritius Seychelles Zimbabwe	2008 or 2013	21.5-62.1%	0-104.1%
Zambia	2014	20.8%	5%
BLNS	2008	Overall: 79.3% Individually: 63.7–83%	0.01–1.2%
Mozambique	2009	70.5%	5,2

Source: ODI calculations, as reported in Bilal and Stevens (2009).

4.4. Section Summary: Where do we go from here?

From the above it follows that methodology matters when looking at results from the literature on the fiscal impact of EPAs. It has become clear indeed that paying attention to methodological aspects is key to differentiate between rough estimations and "closer-to-actually-expected" results. Yet, as they ultimately depend on the availability and reliability of data sources, and because they often have to rely on specific assumptions not given a priori, all studies have inherent limitations and none of them can ultimately be considered methodologically flawless.

Looking in more detail at the methodology used by studies in their attempt to quantify the trade, welfare and revenue effects of an EPA, the revenue impact has often been overestimated in the literature by using tariff rates and effective rates which do not reflect reality. This remark could however raise a legitimate question, notably for policy-makers and trade and government officials in-country: 'Which study should then one trust?' "None and all' could well be the only legitimate answer. Each study has its strengths and weaknesses and, despite their high degree of variation when it comes to quantitative results, all analyses tend ultimately to complement each other, to the extent that they address and shed light on different specific aspects of trade liberalisation.

Nonetheless, in view of the above discussion on methodological considerations, some analyses and their subsequent results seem more accurate than others due to the comprehensiveness of their quantifying models. Those studies such as Busse *et al.* (2005) which attempt to factor in the tariff revenue efficiency in their quantifying models would by their very nature give a more accurate picture of actual tariffs being

collected, and *a fortiori* of potential tariff losses. Similarly, studies that take into consideration the impact of liberalisation on revenues other than those from custom duties, such as Gallezot (2007), Gallezot and Laborde (2007), tend to give a more comprehensive picture of the fiscal impact of an EPA than those which confined themselves to only estimating the loss in tariff revenues.

Further, analyses on the topic tend to have been refined over time, more recent studies being conducted with the implicit or explicit view to proceeding to a new assessment of the potential fiscal impact of the EPAs in the light of the fragile assumptions on which some analyses on the topic were relying on[35].

For all these reasons, studies using the World Bank's Tariff Impact Simulation Tool might ultimately be considered a more reliable source of information, when it comes to estimating the potential implication of trade liberalisation on government revenue (see Box 4.2). In addition to being based on a solid methodology, studies based on TRIST have also the advantage of having been conducted very recently, either on the basis of (close-to) realistic assumptions regarding liberalisation commitments taken by African countries in the context of an EPA, or (whenever possible) in light of the actual schedules of commitments agreed by those African countries that have initialled and/or signed an interim EPA.

As the results of a single study can only provide a partial account of the reality, various studies would ultimately need to be considered in parallel to get a comprehensive picture of a complex reality. That is the objective of the following section.

5. Assessing the Fiscal Impact of EPAs: Key Findings from the Literature and Some Tentative Cross-country Comparisons

Despite the difficulty of comparing studies across-the-board, it is nevertheless useful to reach some broad conclusions about the relative impact of EPA-related losses across different countries. Having an idea of what the literature broadly says about the revenue-impacts of EPAs is particularly valuable for policy and decision-makers, not only from the point of view of on-going negotiations – which for some countries continue to hinge on the revenue loss question – but also in the design of responses by governments and donors. This section provides some regional overview of the estimated results before presenting country rankings of the estimated impacts.

Given the comparability difficulty deriving from the variety of different modelling exercises, methodologies, data, and assumptions discussed above, the following analysis is only a rough attempt to interpret studies across-the-board and should be interpreted as such. It is not the intention of the authors here to calculate precise quantitative assessments of EPA-related fiscal losses in Africa (see Box 5.1). Estimates of fiscal losses are here provided to acquire a *sense* of the *magnitude* of the expected fiscal effects of an EPA and an idea of which countries or regions stand to lose more revenue compared to others. In this respect, one would expect that, beyond absolute figures and regardless of the methodology they use, studies would agree on a broadly similar ranking of countries.

[35] Similarly, given ongoing negotiations and the possible submission of new market access offers at the regional level, it might become important moving forward to conduct new studies factoring in the new tariff commitments.

After examining the findings of the literature both by region (Sections 5.1) and then across regions (Section 5.2), this section provides a first rudimentary attempt to interpret empirical results in light of more theoretical principles regarding the degree of vulnerability of countries to fiscal revenue loss (Section 5.3).

Box 5.1: Our methodology for comparing different studies, and its limitations

In the analysis presented in this chapter, we have confined ourselves to analysing cross-country studies only[36], intentionally leaving aside the numerous quantitative assessments that have been conducted in the year 2000s at the national level for individual countries[37].

Nevertheless as shown in Section 4, even cross-country studies do not always use the same liberalisation scenario, the same data years or sources, the same elasticities of demand for imports, or the same level of aggregation in data. In order to keep track of all these different factors, we have carefully compiled the methodology and data sources used by each study, following the analytical framework used by Brenton *et al.* (2007)[38]. These are available in Annex 4.

For all studies, we have recalculated the "revenue loss" as a percentage of total tax revenues. To do so, we have expressed the "revenue loss" as defined in absolute terms by each study under review[39] as a percentage of total tax revenue, using -- for all studies -- data from the African Economic Outlook (AEO) (OECD-AfDB, 2010), which provides a comprehensive picture of the fiscal performance of almost all countries in Africa from 1996 to 2008. Indeed, in this context, the AfDB's statistics department and the OECD Development centre have collected wide-ranging data of fiscal performance, providing for each country in Africa an overview of total tax revenues (direct taxes, indirect taxes, trade taxes and other taxes, including resource-related income), compiled in both billions of US Dollars, and billions of local currency[40]. As these are expressed in current prices, we have throughout the comparison/ranking exercise below made sure to exploit the same data years as those used and provided by each study in their modelling exercise (data years can be found for each study in Annex 4). The advantage of this method is that it recalculates the results of different studies in terms of a common denominator for comparison purposes.

Yet this exercise obviously bears a number of inherent limitations. First, using current prices has its limits, and one is not sheltered from miscalculations[41]. Secondly, recalculating data from one source (estimates of

[36] This section focuses on partial equilibrium (PE) analyses only given the difficulty to compare results of PE models and those obtained through the use of Computable General Equilibrium analyses (See Annex 2 for more information on the comparability problem). The latter type of studies have however been reviewed and their findings have been partially taken into consideration in other sections of this study. For CGE analyses please refer to Fontagné *et al.* (2008), Keck and Piermartini (2007), as well as to Annex 3 on the CGE model developed in West Africa.

[37] Although TRIST models have for the most part been conducted and reported for individual countries only (for an exception, see Brenton *et al.* 2007), the methodology and data sources used in those national assessments remain identical across studies. The results of these models have therefore been included in the present literature review.

[38] Brenton *et al.(*2007). P 37.

[39] The recalculated "revenue loss" corresponds to the one defined by the studies under review: for those studies which only provide estimates of tariff revenue loss, we have expressed those as a percentage of total tax revenues; for those studies which provide a quantitative assessment of the net fiscal revenue loss (i.e including effects on VAT and excise on imports), recalculation in percentage of total tax revenues as been done on this more detailed basis.

[40] The African Economic Outlook 2010 database is available online at: http://www.africaneconomicoutlook.org/en/database-on-african-fiscal-performance/ It represents the most comprehensive readily available database on fiscal performance for all countries in Africa, but Eritrea, and Zimbabwe, which have therefore been excluded from the computations in the present study. In the context of this study, data were extracted from the early 2011 version of the database. It might be worth considering in the future updating the calculations as well.

[41] This is all the more the case since, except for a few exceptions, studies rarely specify whether they have used in their respective model current or constant prices.

fiscal loss that have been obtained from different studies) in terms of another source (the OECD database) is not ideal (see Annexes 2 and 4 on the comparability problem). Last but not least, it is worth mentioning that recalculations operated in the context of our ranking exercise do not allow us to provide an assessment of the *percentage change* in total tax revenues following trade liberalisation in the context of an EPA, nor do they illustrate the 'fiscal impact' of an EPA *per se*. Estimates recalculated below only represent the revenue loss likely to follow from an EPA expressed in percentage of total tax revenue *for a specific year* (the one used by the literature for their respective simulations). Besides, in most cases, the revenue loss under consideration is the one deriving from the removal of custom duties only and does not take into consideration the impact of trade liberalisation on revenues from non-trade taxes (see section 4). The estimates presented here only represent therefore the *tariff* revenue loss expected from an EPA as a percentage of the total tax revenues levied in a given year.

Notwithstanding the above, we believe this ranking exercise represents a rudimentary yet useful attempt to comprehensively compare studies and draw general lessons about the scope of the fiscal loss to be expected from an EPA. It ultimately allows one to identify those countries which should perhaps be more concerned about the risks of potential fiscal loss compared to others. The rest of the section presents the results of this exercise.

5.1. A regional overview of fiscal losses

5.1.1. West Africa

Table 5.1 provides the results of three studies modeling the impact of an EPA on tariff revenue in the (improbable) scenario of *full reciprocal* tariff liberalisation between West Africa and the EU. As explained in Section 4, these estimates should represent upper bound estimates of the tariff revenue loss to be expected from trade liberalisation in the context of an EPA and, as anticipated, results vary greatly not only across studies, but also across countries.

These studies suggest that in absolute terms, the decline in tariff revenue in West Africa will range from less than US$10 million in Guinea-Bissau to more than US$682 million in 'large and protected' Nigeria. However, results also show that while Nigeria is likely to lose a significant amount of revenues (accounting incidentally for more than 25% of its revenue from trade taxes in the years 2000-2004), these losses are relatively marginal, given the importance of oil royalties and other resource-related revenue in the country's budget. If one considers total tax revenue therefore, Nigeria would thus appear to be among the countries the least likely to encounter important adjustment costs following trade liberalisation in the case of an EPA.

Conversely, although Guinea Bissau is estimated to lose the least revenues in absolute terms, the burden on the country's fiscal balance is likely to be quite significant, with a calculated revenue loss accounting for between 21 and 35% of the country's total tax revenue. In percentage of total trade revenue, losses will notably be large in Cape Verde with an expected revenue loss worth between US$24 million and US$34 million, i.e. more than 60% of the country's trade revenue. Mauritania and Senegal are also likely to lose a significant part of their tariffs revenue, with some revenue loss accounting for more than 40% of their revenue from trade taxes. In terms of total tax revenue -- along with Guinea Bissau -- Cape Verde and Gambia also clearly emerged as countries likely to be highly impacted by an EPA, with a decline in revenue accounting for more than 25% of their total tax revenue in the years 2000-2004.

Table 5.2 below provides estimates of the impact of an EPA on revenues from all taxes, including VAT and excise levied on imports. Figures of revenue loss found by Gallezot (2007) seem higher than those described in Table 5.1 as they include VAT and excise taxes with the demand response not sufficient to offset the revenues lost. Despite the huge variations in results, this new table confirms that an EPA will have a significant revenue effect in the region, with a net regional fiscal loss estimated by Gallezot (2007) to be as high as 37.7%. At the country level, an EPA will equally affect LDCs and non-LDCs.

Table 5.1: EPA Tariff Revenue losses in West Africa

	[UNECA]/ Lang (2005) -			Busse, Borrmann, Grossmann (2004)*			Zouhon-Bi/Nielsen (2007)		
	A	B	C	A	B	C	A	B	C
Benin	-39.523	-13.17%	-6.59%	-27.6	-15.33%	-8.12%			
Burkina Faso	-22.003	-36.67%	-6.29%	-17.5	-35.00%	-6.03%			
Cape Verde				-24	-60.00%	-21.82%	-34.3	-85.75%	-19.06
Côte d'Ivoire	-112.236	-20.78%	-6.20%	-82.9	-16.92%	-5.15%			
Gambia				-13.8	-46.00%	-27.60%			
Ghana	-193.683	-129.12%	-23.91%	-90.8	-50.44%	-9.87%	-150.6	-47.06%	-7.97
Guinea				-16.7	-27.83%	-5.22%			
Guinea Bissau	-7.17	-71.70%	-35.85%	-2.16	-21.60%	-21.60%**			
Mali	-33.141	-10.69%	-5.52%	-16.6	-7.90%	-3.86%			
Mauritania	-14.572	-72.86%	-6.94%	-11.8	-59.00%	-5.62%			
Niger	-20.487	-14.63%	-7.59%	-6.6	-7.33%	-3.88%			
Nigeria	-426.902	-25.87%	-2.63%	-487.8	-28.03%	-2.48%	-682	-36.28%	-2.25
Senegal	-80.203	-40.10%	-6.91%	-87.9	-58.60%	-10.99%	-154.7	-70.32%	-11.05
Togo	-35.471	-29.56%	-15.42%	-12.9	-16.13%	-8.06%			

* Estimates are those reported by Busse, Borrmann and Grossmann (2004), for a mid scenario baseline. This scenario entails for agricultural products/ raw materials and manufactured goods a demand elasticity of 0.7 / 0.9 / 1.1 and a substitution elasticity of 2.0/ 3.5/ 3.0 (both) respectively.

A- Tariff Revenue Losses in Mo US$

B- Tariff Revenue Losses as percentage of revenue from total trade taxes. Computations using the African Economic Outlook 2010 - Database on Fiscal Performance.

C- Tariff Revenue Losses as a percentage of total tax revenue. Computations using the African Economic Outlook 2010 - Database on Fiscal Performance.

** According to the African Economic Outlook 2010, non-trade taxes for Guinea Bissau were insignificant until 2002.

Sources: Concerned Studies and OECD-AfDB (2010).

Table 5.2: EPA Net "Fiscal" Revenue loss in West Africa, according to Gallezot (2007)

	Millions Euros	Millions USD (1)	revenue loss as % of fiscal revenue importation (2)	% of total tax revenue (3)
Benin	-49.468	-73.8	-34.2	-14.28
Burkina Faso	-30960	-46.2	-47.3	-9.76
Cape Verde	-33.762	-50.3	-68.5	-32.8
Côte d'Ivoire	-177.431	-264.6	-59.7	-12.72
Gambia	-10.002	-14.9	-27.7	-23.53
Ghana	-120.008	-178.9	-30.8	-12.42
Guinea	-30.328	-45.2	-33.3	-12.33
Guinea Bissau	-2.191	-3.3	-41.6	-14.14
Liberia	-43.266	-64.5	-23.3	-107.5*
Mali	-37.122	-55.3	-45.9	-9.27
Mauritania	-42.057	-62.7	-40.8	-15.94
Niger	-15.89	-23.7	-27.2	-9
Nigeria	-570.731	-850.9	-35.9	-3.78
Senegal	-110.346	-164.5	-50.1	-14.3
Sierra Leone	-7.19	-10.7	-28.9	-8.92
Togo	-21.722	-32.4	-20.2	-15.43

Source: Gallezot (2007)

(1) Converted from Euros

(2) As calculated and reported by Gallezot (2007). Imports are on the basis on 2002-2004.

(3) This corresponds to the change of total revenues on imports (including effects on excise, and VAT) as a percentage of total tax revenues, as calculated by the authors from AEO fiscal performance database - February 2011.

* Inconsistency in data: According to the OECD-AfDB (2010), Liberia's total tax revenue amounted to approximately US$ 0.06bn on average for the years 2002-2004. A loss of US$62millions of revenues as predicted by Gallezot (2007) would therefore entail a significant revenue loss that would be higher than what the government used to collect on all types of taxes for the years specified. This does not seem in coherence with the results obtained by Gallezot (2007), who found that the net loss as a percentage of fiscal revenue/importations 2002-2004 was about 23.3%.[42]

Table 5.3: Estimation of the EPA-induced revenue loss in Cote d'Ivoire and Nigeria, using TRIST

	Scenario of Liberalisation	Change in Tariff Revenue (bn. LCU)	Change in Total Tax Revenues on Imports (bn LCU)	% of total tax revenues (2007) (1)
Cote d'Ivoire	Interim EPA (2)	-38.1	-40.8	-2.84%
	ECOWAS EPA (2)	-31.2	-33.8	-2.35%
Nigeria	Full liberalisation	-60.07	-58.09	-0.73%
	80% liberalisation (3)	-29	-28.66	-0.36%

Source: Hoppe, 2010 and related TRIST Briefs (See Hamilton. 2009)

(1) As recalculated by authors using the database on Fiscal Performance by the African Economic Outlook 2010

(2) These results are those reported by Hoppe (2010), using standard elasticities, set at 1.5 for elasticities of substitution and 0.5 for demand elasticities. The Interim EPA scenario is based on the interim EPA signed by the EU and Cote d'Ivoire, according to which Cote d'Ivoire shall liberalise 80.3% if its imports from the EU by 2023. The ECOWAS EPA scenario simulates the effects of the "latest" market access offer submitted by the region to the EU at the time the study was done. According to the latter scenario, Cote d'Ivoire would only apply positive statutory tariffs rates on 23.1% of its imports from the EU (Hoppe. 2010)

(3) This scenario of liberalisation uses standard elasticities and includes an exclusion list of 20%, comprising the most-revenue sensitive products

[42] For this reason, and given the lack of additional data regarding this country, Liberia has not been included in the ranking exercise provided below.

5.1.2. Central Africa

In Central Africa, although many studies have been conducted for each country individually, cross-countries studies are scarcer. Two such analyses are examined here[43].

Table 5.4 gives an indication of the *tariff* revenue loss to be expected from an EPA in the case of a removal of all custom duties on EU imports. This loss is likely to be significant for all countries in the region, accounting for more than 50% of trade revenue in almost all countries in Central Africa. At the country level, however, the adjustment cost will vary greatly, depending on the tax mix and the importance of trade taxes in total fiscal revenue. According to our computations, Chad is likely to face the greatest fiscal adjustment, with a revenue loss accounting for more than 15% of its total tax revenue (in the period considered by the simulation). Cameroon comes second, as it will lose more than $150 millions of revenue, representing approximately 8.5% of its total tax revenue. Using OECD-AfDB (2010), it would seem that although the Central African Republic is expected to lose less than US$6 million following trade liberalisation, this loss corresponds to more than 7% of its total tax revenue in 2001-2003, a non-negligible share.

Overall, we find that, in percentage of total tax revenue, tariff revenue losses are likely to be significant for all Central African countries (although Gabon may be less affected relative to other countries in the region).

Table 5.4: EPA Revenue loss in Central Africa – Results from UNECA (2005a)

	Estimate of Tariff Revenue Loss in US MS	Tariff Revenue Loss as % of total trade taxes - as recalculated using OECD-AfDB (2010) (1)	Tariff Revenue Loss in % according to UNECA (2005)	Tariff Revenue Loss as % of total tax revenues – as recalculated using OECD-AfDB (2010) (1)
CAR	-5.844	-58.44%	-55.60%	-7.31%
Cameroon	-149.26	-59.70%	-69.60%	-8.48%
Chad	-26.677	-53.35%	-58.60%	-15.69%
Congo	-74.302	-106.15%*	-55.20%	-8.35%
Eq. Guinea	-33.914	-339.14%*	-60.30%	-5.65%
Gabon	-74.302	-23.22%*	-51.90%	-4.67%

Source: UNECA (2005a)

(1) As re-calculated by authors using African Economic Outlook (AEO) Database. 2010. Database on Fiscal Performance

*Inconsistency in data: The case of Congo, Gabon and Equatorial Guinea is to be interpreted with caution as it shows the inconsistency in data one can sometimes obtained when using different databases and therefore the limitations of our exercise. Indeed, the tariff revenue loss in percentage of total trade/tariff revenues differ greatly when assessed by the authors of the UNECA report and when recalculated using the average total trade taxes for the years 2001-2003 reported in the AEO database.

Although in absolute values these results seem to be close to those found by other impact studies conducted for the region, recalculating these estimates in percentage of total tax revenue can lead to a

[43] Those have not been summarized in the same table, given the differences in methodology and assumptions.

very different picture depending on the study considered. Except for Equatorial Guinea, the tariff revenue loss estimated by UNECA (2005a) seems consistent with that found by Gallezot and Laborde (2007), using a partial equilibrium model (based on that by Verdoorn). However, by taking account of the effects of trade liberalisation on all taxes, including domestic taxes, Gallezot and Laborde (2007) finds that the fiscal impact of an EPA on total tax revenues (in a context of a full liberalisation) might be lower than previously estimated. It implies that in the case of Central Africa, trade liberalisation generates a substantial revenue gain through the levy of domestic taxes on 'created' new imports.

Table 5.5 describes the results found by Gallezot and Laborde (2007). It shows that the fiscal impact of an EPA on tax revenue might vary from approximately 4% in the case of both Equatorial Guinea and Gabon to as much as 7% in the case of Cameroon compared to 4.6 percent, 5.7 percent and 8.5 percent under the previous study, respectively. This, however, ignores Sao Tome and Principe (STP), which given its heavy reliance on trade taxes in the years 2003-2004, has been categorised as likely to encounter a much more dramatic revenue loss, accounting for more than 50% of the country's total tax revenue.

Table 5.5. Estimating the Total Fiscal Loss from Trade in Central

	Total Tariff Revenue Loss in M US$ (1)	Total Fiscal Loss from Trade (incl. excise, VAT), M€	Total Fiscal Loss from Trade (incl. excise, VAT), M US $ (2)	Change in Fiscal Revenue "from trade" (% of init. Fiscal revenue) (3)	Total Tax Revenues (2003-04) - M.US$	Revenue Loss as % of Total tax Revenues (4)
CAR	-8	-4.60	-5.44	-17.4	95.00	-5.73%
Cameroun	-211.5	-117.75	-139.31	-21.9	2115.00	-6.59%
CDR	-49.7	-26.02	-30.78	-9.8	530.00	-5.81%
Chad	-23	-13.48	-15.95	-20.6	320.00	-4.98%
Congo	-98.6	-58.14	-68.78	-22.5	1200.00	-5.73%
Eq. Guinea	-68.7	-37.26	-44.08	-20	1105.00	-3.99%
Gabon	-112.8	-64.68	-76.52	-25.8	1865.00	-4.10%
STP	-7.7	-4.59	-5.43	-28.8	10.00	-54.32%

Source: Gallezot and Laborde (2007)

(1). Total Tariff revenue loss in M US $ as recalculated by in

(2) Conversion have been made on the basis of the average exchange rate for the year 2002-2003 USD/EUR : 0.845248, and as provided by : http://fxtop.com/en/historates.php3.

(3) Fiscal revenue here include all taxes (including domestic taxes) levied at the border (VAT, Excise). Estimates are as stated in ITAQA; Gallezot/Laborde. 2007

(4) Estimates have been recalculated by authors using OECD-AfDB,(2010). February 2011 Available online.

Inconsistency in data: According to OECD-AfDB (2010), STP's revenues in 2003 were so low that they appear as being non-existent for all categories of tax revenues. If one does not include grants in the calculations for that year, STP's government seem to rely almost exclusively on non-tax revenues, generating in 2003 some $0.23 billion. The situation is quasi identical in 2004, except that the government levied that year some $10millions through trade taxes. This heavy reliance on trade taxes in the tax mix of STP leads therefore to high revenue loss as a percentage of total tax revenues.

In any case, on the basis of this new assessment, Chad does not emerge as threatened as in the previous study. This may be due to the change in its tax mix between 2001-2003 (basis for UNECA, 2005a) and 2003-2004 (data years used in Gallezot and Laborde, 2007). In 2003, indeed, Chad began to extract oil, leading to a dramatic increase in resources-related tax revenues, thereby reducing the relative importance of trade tax revenues. Revenues generated by 'other taxes' (*i.e.* other than direct, indirect and trade taxes) rose in the period from about $0.04 billion to more than $0.2billion (OECD-AfDB, 2010)[44].

[44] This example is worth noting here since it is characteristic of one critical fiscal trend over the years: the remarkable increase in taxes on resource extraction– increase which mainly explains the increase in tax revenues in Sub-Saharan Africa since the late 1990s (OECD-AfDB, 2010).

Box 5.2: Assessing welfare effects in Central Africa

Revenue losses in Central Africa might however be partially offset by welfare gains. These gains have been assessed as positive for all Central African countries according to UNECA (2005) (see Annex 4). However, when it comes to assessing welfare gains, the UNECA report must be interpreted with caution.

First, the existing imports from regional partners likely to be replaced by EU imports with the entry into force of an EPA have been considered as trade-diverted flows. Although this is quite common in the literature, in many cases, regional partners have benefitted from intra-regional preferential schemes that have been likely to render them "artificially more efficient" than EU exporters prior to the EPA, to the detriment of consumers who pay higher than world prices. As a result, although trade liberalisation with the EU is admittedly likely to hinder the potential growth of intra-regional trade and might well be detrimental to regional integration[45] as argued by many authors (including UNECA (2005))[46]; from a purely theoretical point of view, the potential replacement of regional imports by EU imports will be welfare-increasing by lowering prices to consumers.

However, from a methodological point of view, the WITS/SMART assessment of welfare gains as conducted in UNECA (2005) is likely to be overly positive since it only assesses welfare effects on the basis of consumer surplus effects, explicitly leaving aside the potential loss in producer surplus likely to occur as EU imports replace parts of the domestic production and the subsequent impacts on employment and job creation (UNECA, 2005 ; Zgovu and Kweka, 2007).

In any case, as pointed out by the authors of the UNECA report themselves, it should be stressed here that welfare gains (as assessed on the basis of consumer surplus only) will at best compensate for one fifth only of the revenue loss due to an EPA. This reveals that the effects of an EPA on Central African economies should not be underestimated.

The importance of resource-related tax revenue in oil-producing countries like Chad can indeed potentially and partially mitigate the adverse effects resulting from the loss of trade revenues in the context of an EPA, leaving some breathing space to governments whose budget might not necessarily come under severe pressure following EPA-induced trade liberalisation, *if* this liberalisation occurs in the favourable context of high commodity prices.

Yet, although Chad's fiscal balance may not be dependent on trade taxes, removing thereby a certain element of vulnerability, it remains highly vulnerable to price volatility. Recent research has moreover demonstrated that diversifying sources of revenue away from natural resources could help increase domestic revenue mobilization (OECD-AfDB, 2010).

5.1.3. East and Southern Africa

For Eastern and Southern Africa, Tables 5.6.1 and 5.6.2 provide estimates of EPA revenue losses in the unlikely event of a full liberalisation scenario. As previously mentioned, although they represent upper bound estimates of the potential revenue loss that is likely to follow tariff liberalisation in the context of an

[45] This would however needs to be verified empirically by looking at the degree of substitutability between regionally produced goods and EU exports, as well as the capacity of the EU to produce and exports those manufactured goods produced in the region for the region.

[46] This effect is however likely to be relatively marginal for many countries in Central Africa. Indeed, since intra-CEMAC trade is quite low in the region, the effects of an EPA on intra-regional trade have non-surprisingly been assessed as being limited. Some "diverting effects" are indeed only expected in Gabon and in the Central African Republic. In both cases however the diversion is likely to occur at the detriment of Cameroon, which could lose more than 5% of its export to these two countries (UNECA. 2005).

EPA, these quantitative evaluations provide some interesting assessment of the scope of the fiscal adjustment following EPA-induced lowering of tariffs on imports from the EU.

Comoros emerges as the country likely to encounter the biggest fiscal impact, with some $8.6million of tariff revenue losses, accounting for more than 43% of Comoros' total tax revenues in 2001.

According to Borrmann *et al.* (2007), a significant part of this revenue loss will come from trade-diversion effects, estimated by the authors to be as high as 8.1% of non-preferred imports. Not only is this far above the average for the rest of the region, but it is also higher in absolute terms than trade-creation effects (see Annex 4 for more details). These nominal figures should however be considered with caution since they are based on the findings of a single study (that moreover uses 2001 data and consider the improbable scenario of a full liberalisation). Yet, the high revenue loss in percentage of total trade and tax revenue is a definite call for attention.

Table 5.6.1a: EPA Revenue Losses in Eastern and Southern Africa I

	Tekere and Ndlela (2002)		**UNECA (2005a)**		**Borrmann *et al*. (2007)**	
Liberalisation scenario	Full lib.		Full lib.		Full lib.	
	A	B	A	B	A	B
Burundi			-7.70	-7.70%	-6.60	-6.60%
Comoros					-8.60	-43.00%
Djibouti			-37.50	-26.79%	-18.60	-13.29%
DR Congo[47]			-24.70	-6.18%	-22.70	-5.16%
Eritrea			-7.40			x
Ethiopia			-55.10	-5.92%	-44.60	-4.65%
Kenya			-107.30	-4.29%	-69.50	-3.03%
Madagascar			-7.70	-1.71%	-4.20	-0.95%
Malawi	-24.58	-11.99	-7.10	-2.37%	-5.20	-1.93%
Mauritius	-209.93	-4.26	-71.10	-8.57%	-76.50	-9.81%
Rwanda			-5.60	-3.11%	-4.90	-2.33%
Seychelles			-24.90	-12.45%	-18.60	-11.63%
Sudan			-73.20	-3.94%	-76.40	-4.75%
Tanzania	-146.56	-14.66%	-32.50	-3.01%	-32.70	-2.77%
Uganda			-9.50	-1.32%	-9.70	-1.21%
Zambia			-15.80	-2.26%	-15.60	-2.11%
Zimbabwe	-118.26		-18.40		-20.60	

Sources: Concerned Literature

A- Decline in Tariff Revenues in US Millions $

B- Decline in revenues as a % of total tax revenues. Percentages of revenue losses over total tax revenues have been re-calculated using African Economic Outlook 2010 - Database of Fiscal Performance, available online athttp://www.africaneconomicoutlook.org/ (extracted in early 2011)

[47] Democratic Republic of Congo (DRC) originally started the EPA negotiation with the ESA EPA group; it later joined the CEMAC configuration.

Table 5.6.1b: EPA Revenue Losses in Eastern and Southern Africa II

	Milner *et al.* (2005)		Munalula *et al. (2004)*	Khandelwal (2004)	Zgovu and Kweka (2007)			
Liberalisation scenario	Full Lib.		Full lib. (after intra-regional FTA)	100% lib.	Including sensitive products		Excluding sensitive products	
	A	B*	B*	B*	A	B	A	B
Burundi				-8.7%				
Ethiopia			-9.9%					
Kenya				-3.5%				
Madagascar			-9.2%	-1.8%				
Malawi			-1.2%	-2.4%	-776.60	-2.42%	-422.68	-1.32%
Mauritius				-10.7%				
Tanzania	-65400.00	-6.80%		-2.5%	-54811.30	-3.71%	-32167.90	-2.17%
Uganda	-71300.00	-6.50%		-1.8%				
Zambia			-1.2%	-2.9%				

Sources: Concerned Literature

A- Decline in Tariff Revenues in millions of Local Currency Unit.

B- Decline in revenues as a % of total tax revenues. Percentages of revenue losses over total tax revenues have been re-calculated using African Economic Outlook 2010 - Database of Fiscal Performance, available online athttp://www.africaneconomicoutlook.org/ (Data extracted in early 2011)

* As recalculated by Brenton *et al*. 2007. p 37.

On the other hand, apart from the results of Tekere and Ndlela (2002) whose estimates may seem bigger due to the methodological issues discussed in Section 4, all studies seem to find a *relatively* lower fiscal impact for Malawi and Kenya than for other countries in the region. This qualitative trend seems somewhat corroborated by the findings of the simulations carried out through the World Bank's TRIST, based on the *actual* IEPA schedules (Table 5.7). Well aware of the caveats of our methodology and the caution this comparison exercise calls for, based on the findings of the literature, Zambia and Tanzania are also among the countries that should be relatively sheltered from significant revenue losses.

The case of Seychelles is more nuanced, but in accordance with the methodological considerations explained in section 4 and in line with the results obtained using the TRIST, the revenue impact of an EPA in Seychelles will most likely be relatively small. The important disparities across studies can mainly be explained by the fact that the data used for all but the TRIST models were too old to incorporate the tax reforms undertaken by Seychelles in 2007 when concluding the EPA. This reform however is key to assess the potential EPA-induced revenue loss, as it was directly aimed at transforming most of Seychelles' above-CET tariff peaks in excise taxes in order to avoid losing significant revenues. This example reveals an important factor to take into account when considering the real fiscal impact of an EPA on ACP/African economies: the capacity of a country to reorganize its fiscal base in order to cope with the revenue implications of tariff liberalisation. Although the Seychelles will liberalize more than 97% of the value of imports from the EU, 99% of which during the first tranche of liberalisation (Bilal and Stevens, 2009), the impact in terms of revenue loss for the country is likely to be muted by the fact that sales tax on imports will directly come to replace tariffs. The high revenue loss found by UNECA (2005) and Borrmann *et al.* (2007) could therefore be somewhat offset.

Table 5.7: Fiscal Impacts of an EPA in Eastern and Southern Africa, according to TRIST models

Liberalisation scenario	Full lib.		80% lib.		official IEPA text	
	A	B	A	B	A	B
Burundi	-9917.1*(1)	-5.34%	-5392.49*(1)	-2.90%	-7539.35(1)	-4.06%
Ethiopia	-503.40	-4.06%	-304.21	-2.45%		
Kenya	-6926.04	-1.56%	-1770.72	-0.40%	-5720.55	-1.29%
Madagascar	-71574.62	-4.70%	-26322.08	-1.73%		
Malawi	-899.31	-1.04%				
Seychelles	-8.4*(2)	-0.52% (2)				
Tanzania	-48781.76	-1.32%	-6908.42	-0.19%	-21319.06	-0.58%
Zambia	-150385.57	-1.84%	-54704.52	-0.67%	-77642.40	-0.95%

Source: World Bank 9009 a-e - Trist Briefs ; See also Hamilton, 2009

A- Total Fiscal Impact EPA (change in total revenue on imports (Customs duties, VAT, excise…) in Millions of Local Currency

B- Total Fiscal Impact EPA as a percentage of total tax revenues. Authors' own computations using the African Economic Outlook 2010. Database of Fiscal Performance, available online at http://www.africaneconomicoutlook.org/

(1) Data on excise were not available in TRIST although Burundi does seem to levies excise duties.

(2) For the Seychelles, Data on Goods and Services Tax (GST) is not contained in the TRIST model. The loss is therefore here equivalent to the loss in tariffs revenues only.

5.1.4. Southern African Development Community (SADC)

Table 5.8 below describes the revenue loss to be expected in SADC economies in the case of a full reciprocal liberalisation with the European Union. Once again, results vary greatly across studies, but also across countries.

As mentioned in Section 4, the results found by Tekere and Ndlela (2002) are likely to be overestimated as they use bound tariffs by opposition to actually applied tariffs. According to this study, Namibia ranks among the countries likely to be forced into significant fiscal adjustments following EPA-related trade liberalisation, facing a dramatic loss of more than $285milions, representing 92% of its revenues from trade taxes and more than 30% of its total tax revenues in the early 2000s. However, this is more than 70 times the figure obtained by two other studies, which used applied tariffs. This again highlights the importance of taking into consideration the methodologies applied in the studies under analysis.

Overall, although some countries may lose a significant proportion of revenues from custom duties, those do not seem to account for a lot of their tax revenues. Nonetheless, the impact of an EPA in SADC countries varies greatly across countries.

As rightly pointed out by UNECA (2005), the revenue implications of an EPA are likely to be relatively more limited for the members of the Southern Africa Customs Union (SACU), all the more since within SACU, the tariff revenue sharing formula might not be “adversely affected much by the EPAs impact”. Revenue shortfalls seem indeed to be relatively limited for Lesotho, Swaziland, and to a certain extent for Bostwana and Namibia, accounting for less than 1% of total tax revenue in the years of the simulation.

In non-SACU countries, revenue shortfalls will be more significant, accounting for between 2 and 3% of total tax revenue.

Table 5.8: EPA Revenue Losses in Southern African Development Community

	Tekere and Ndlela (2002)			UNECA (2005)			Borrmann *et al.* (2007)		
	A	B	C	A	B	C	A	B	C
Angola				-103.25	-41.30%	-2.32%	-88.1	-36.71%	-2.04%
Botswana	-32.36	-8.99%	-1.61%	-5.23	-1.58%	-0.25%	-5.2	-1.44%	-0.26%
Lesotho				-0.256	-0.16%	-0.09%	-0.3	-0.19%	-0.12%
Mozambique	-29.16	-41.65%	-7.29%	-7.64	-9.55%	-1.59%	-16.7	-20.88%	-3.71%
Namibia	-285.34	-92.05%	-31.02%	-3.83	-1.20%	-0.39%	-4.3	-1.39%	-0.47%
Swaziland	-5.62	-2.68%	-1.37%	-0.81	-0.29%	-0.17%	-0.8	-0.38%	-0.20%
(Tanzania) [48].	-146.56	-50.54%	-14.66%	-32.5	-10.83%	-3.01%	-32.7	-10.55%	-2.77%

Sources: Relevant literature

A- Decline in Tariffs Revenues in Millions of US Dollars.

B- Decline in Tariff Revenues as % of total Trade Taxes

C- Decline in Tariff Revenues as % of total tax revenue (1). All estimates have been recalculated using OECD-AfDB (2010). AEO Database of Fiscal Performance. February 2011 Available online. For Tekere and Ndlela (2002), computation has been done for the year 2001.

More specifically, Angola is likely to lose between $88millions and $103millions of tariff revenues following the removal of custom duties on EU imports, accounting for between 36.7 and 41.3% of its total trade revenues. Although Angola's revenue loss in percentage of total tax revenues (approximately 2%) would seem at first sight manageable given the breathing space provided by the revenues generated by resource-related taxes, this reliance on revenues from natural resources extraction also render government revenues uncertain as they depend on the world's economic situation. In 2009 for instance, with the dramatic decrease of oil prices in the context of the recent economic and financial crisis, Angola faced twin deficits, calling for tight fiscal policies that are likely to continue despite the relative recovery in oil prices in recent years (OECD-AfDB. 2010). In this context, a further loss of trade revenues in the context of a potential EPA might become an even more politically sensitive issue, even if expected revenue shortfalls are foreseen to remain moderate.

From a fiscal performance point of view, recent research has demonstrated that resource-rich economies have not necessarily managed to build and/or reinforce the administration infrastructure necessary to rely more effectively on direct and indirect tax revenues (OECD-AfDB. 2010, UNECA, 2005). On the positive side, however, Angola is foreseen to engage in tax reforms: not only did the country plan to introduce a VAT system in 2010 but it is also working to reduce exemptions and lower tax rates (OECD-AfDB, 2010). The country still remains however heavily exposed to the vagaries of global oil prices.

The case of Mozambique seems more complex as studies convey a mixed picture. While according to UNECA (2005), the country is likely to face revenue shortfalls worth approximately $7.6millions, Borrmann *et al.* (2007) find that they will be more than twice as large, using a more aggregated level of analysis (HS-2) but taking into account the existence of exemptions by factoring in collection efficiency ratios. According to the latter study, the country could lose around $16.7millions, representing 21% of the total trade revenues and 3.7% of the total tax revenues collected in 2002. In both cases, the loss is non negligible – a

[48] In the early literature, Tanzania has often been included in the quantitative assessments of the revenue impacts of the SADC-EU EPA, since it was originally part of the SADC EPA regional grouping.

conclusion which is only partly confirmed by the results of simulations done through the World Bank TRIST (World Bank, 2009.d and Hamilton. 2009).

Table 5.9 shows that if Mozambique is likely to lose more than 4.7% of its total revenues on imports and domestic production in the unlikely event of a full liberalisation between Mozambique and the EU in the context of an EPA, the loss could be narrowed down to 1.7% if the country only liberalises 80% of its imports from the EU and excludes its most revenue-sensitive products from liberalisation. Computed in percentage of total tax revenues for the year 2008, those revenue shortfalls would in both cases appear insignificant.

Table 5.9: EPA-related revenue loss in SADC according to TRIST models
(estimates are in millions of Local Currency, unless stated otherwise)

	% change in tariff revenues (1)		Change in total tax revenues on Imports and domestic production (1)		% change in total revenues on imports and domestic production (1)		Fiscal loss as percentage of total tax revenues (2)	
	A	B	A	B	A	B	A	B
Mozambique	-13.1	-5	-425.89	-155.47	-4.7	-1.7	-0.0013%	-0.0005%

Source: World Bank's TRIST Brief (World Bank 2009d)
A- Estimates based on a 100% liberalisation Scenario
B- Estimates based on a 80% liberalisation scenario, excluding the most -revenue sensitive products from liberalisation
(1) Results from TRIST models
(2) Computation from authors using the African Economic Outlook (2010) - Database on Fiscal Performance. Total Tax Revenues include here direct taxes, indirect taxes, other taxes as well as trade taxes. Source: African Economic Outlook 2010 (OECD-AfDB, 2010). Database on Fiscal Performance.

5.2. Towards a first ranking of results and across-the-board comparisons

Based on all of the above reports and analyses, Table 5.10 summarizes all results across regions to rank countries according to the scope of the potential revenue loss to be expected from trade liberalisation in the context of an EPA.

The following four categories of countries have been identified:

- loss<2% The green category represents countries for which the fiscal impact of an EPA on total tax revenues is likely to be low, *i.e* countries which are likely to experience a revenue loss of less than 2% of their total tax revenues.
- 2%<loss<5% The orange category represents countries for which the fiscal impact of an EPA on total tax revenues might be significant. These are countries for which expected revenue loss as a percentage of total tax revenues account for between 2 and 5%. Among those countries of course, there are quite a number of variations across countries.
- 5%<loss<10% The dark orange category represents countries for which the fiscal impact of an EPA is foreseen to be quite high. These are countries for which expected revenue loss as a percentage of total tax revenues have been assessed to be likely between 5 and 10%. These countries would definitely deserve some increased attention.
- Loss>10% “Red-Flag” countries are countries for which an EPA is likely to generate revenue losses accounting for more than 10% of total tax revenues, a high loss that calls for particular consideration and vigilance.

This categorisation should however be interpreted with caution as it bears a double degree of arbitrariness; not only indeed are the categories themselves subject for debate, but once those categories are set, the

classification of countries within those categories is not a straightforward exercise. Given the differences in results across studies, the range of expected fiscal loss for a given country can sometimes be so broad that classifying and ranking that specific country into one or the other category necessarily entails a degree of subjective interpretation. However, as shown in Section 4.4, although all studies have their merits, some are considered more reliable than others. The more thorough studies methodologically speaking have therefore been granted more weight, adding a subjective element to our classification.

As an illustration, following the entry into force of an EPA with the EU, Tanzania could lose revenues accounting for between 0.2 and 15% of its total tax revenues according to the studies discussed above. Looking at Annex 4, as well as Tables 5.6.1 and 5.7, one can however see, that from a methodological point of view, there are reasons to believe that this maximum estimate (from Tekere and Ndlela, 2002) may have been overestimated. The minimum estimate however results from simulations using the World Bank's TRIST which, we believe, provides a more reliable picture, being based both on a more accurate and comprehensive methodology and on more realistic assumptions. For this reason, Tanzania could be classified in the green category. Yet, as results from other studies, such as Vollmer *et al.* 2008, have found a relatively significant impact of trade liberalisation on Tanzanian revenues, the country has ultimately been classified in the intermediate category of significant fiscal loss (orange category).

Swaziland, on the other hand, could lose revenues accounting for between 7.89% and 0.17% of its total tax revenues. The maximum estimate was however obtained using simulations based on bound tariffs, and appears disconnected from the results found by all other studies that have been reviewed here. The country has therefore been classified in the category of countries likely to face low to intermediate fiscal loss (green category).

With this in mind, and given the high degree of uncertainty and imprecision in our computations of revenue loss in percentage of total tax revenues, Table 5.10 should be interpreted as an indicative ranking of potential impacts. A green-flag country is not immune and sheltered from the likely adverse impacts of an EPA on government revenues and could well in practice experience an unforeseen significant fiscal loss. Conversely a red-flag country might well empirically encounter a moderate, or even minimal fiscal loss following trade liberalisation in the context of an EPA, depending on other exogenous factors. In this respect, the capacity of a country to reorganize its fiscal base in order to cope with the revenue implications of tariff liberalisation is a factor that is also likely to turn the tables around and should therefore not be underestimated.

Overall, the ranking suggests some regional patterns to the expected fiscal impact. The majority of countries classed as having estimated fiscal impacts which are "very high" (an impact ranging from a six percent reduction in total tax revenues to 43 percent) are predominantly in West Africa. This group includes Benin, Cape Verde, Comoros, Djibouti, Gambia, Ghana, Guinea Bissau and Togo.

Similarly, the group of marginally less affected countries, with a "high" estimated fiscal impact ranging from -2.9 percent of tax revenues to -15.94, includes 15 countries, all of which apart from Mauritius are in central or West Africa. Twelve countries are estimated to incur a "modest impact", most of which are located in Eastern and Southern Africa, while the seven countries estimated to incur a "low" impact are in Southern Africa with the exception of Nigeria. These "low-impact" countries are Zambia, Swaziland, Nigeria, Namibia, Lesotho, Botswana and Malawi.

From this initial exercise, it appears that the worst affected countries, and therefore those most likely to face important domestic revenue mobilisation issues in the near future, are concentrated in West and Central Africa.

Table 5.10: Ranking of countries according to their potential loss of tax revenue as assessed in the literature[49]

Flag	Country	Revenue losses as a % of total tax revenues [Max / Min]
Very high	Benin	-14.28 / -6.59
Very high	Cape Verde	-32.8 / -21.82
Very high	Comoros	-43
Very high	Djibouti	- 26.79 / -13.29
Very high	Gambia	-27.6 / -23.53
Very high	Ghana	-23.91/ -7.97
Very high	Guinea Bissau	-35.85 / -14.14
Very high	Togo	-15.43 / -8.06
High	Burkina Faso	-9.76 / -6.03
High	Burundi	-9.9 / -2.90
High	Cameroon	-8.48 / -4.54
High	Central Africa Republic	-7.31 / -5.73
High	Chad	-15.69 / -4.98
High	Congo	-8.35 / -5.73
High	Cote d'Ivoire	-12.72 / -2.84
High	DR Congo	-6.18 / -5.16
High	Guinea	-12.33 / -5.22
High	Mali	-9.27 / -3.86
High	Mauritania	-15.94 / -5.62
High	Mauritius	-10.7 / -8.57
High	Niger	-9 / -3.88
High	Senegal	-14.3 / -6.91
High	Sierra Leone	-8.92
Moderate	Uganda	-7.61 / -1.21
Moderate	Angola	-2.32 / -2.04
Moderate	Eq. Guinea	-5.65 / -3.99
Moderate	Ethiopia	5.92/ -2.45
Moderate	Gabon	-4.67 / -4.10
Moderate	Madagascar	-9.2 / -0.95
Moderate	Mozambique	-8.09 / -0.0005
Moderate	Rwanda	-3.11 / -2.33
Moderate	Seychelles	-12.45 / -0.52
Moderate	Sudan	-3.95 / -4.75
Moderate	Tanzania	-14.66 / -0.19
Low-Moderate	Kenya	-4.29 / -0.40
Low-Moderate	Malawi	-2.37 / -0.00
Low	Bostwana	-1.61 / -0.06%
Low	Lesotho	-0.12 / -0.09
Low	Namibia	-3.52 / -0.13
Low	Nigeria	-3.78 / -0.73
Low	Swaziland	-7.89 / -0.17
Low	Zambia	-2.9 / -0.67

[49] Given inconsistency in data explained in Table 5.2, Liberia has not been included in the ranking exercise provided.

Nonetheless, given the number of methodological limitations associated with this first ranking exercise, it is considered useful at this stage to determine whether these results are consistent with what might be expected based on theoretical considerations.

5.3. Rules of thumb and Vulnerability Criteria

As a robustness check, we employ a simple rule of thumb to gauge the revenue vulnerability of a country[50]. These rules of thumb, which should be seen as soft rules rather than universally accurate principles, can in turn be translated into three subsequent vulnerability criteria. These have been summarized in Table 5.11.

Table 5.11: Rules of thumb and Corresponding Vulnerability Index: a Methodological Framework

	Criteria 1: Dependence on EU imports	**Criteria 2**: Degree of protection pre-liberalisation	**Criteria 3:** Dependence on trade taxes
Rule of Thumb	The higher the dependence of a country on imports from the EU, the greater the fiscal loss.	The more protected the economy initially, the more likely it is that the country will face an important tariff revenue loss	The higher the dependence on revenue from trade taxes, the greater the revenue loss expected from trade liberalisation
Corresponding Vulnerability Index	Share of EU imports in total imports[51]	Average applied tariff pre-liberalisation[52]	Share of revenues from trade taxes in total tax revenues

Table 5.12 gives an overview of these vulnerability indexes by country.

The scales and vulnerability ranges underlying the classification of countries in the different vulnerability categories have been chosen for indicative purposes only and as a robustness check for the previous ranking. Table 5.12 only provides therefore an imperfect picture of the fiscal vulnerability of a country, broadly indicating the scope of the revenue loss one could *in theory* expect from the EPA-related decrease in tariffs. Notwithstanding these inherent limitations, and while remaining aware of their implications, this tool gives a sense of which countries or regions might in theory lose more revenue compared to others.

[50] See for instance Gallezot and Laborde, 2007.

[51] The vulnerability assessment regarding this criterion can been made on the basis of the following scale: 0 – 15% = low vulnerability; 15 – 30 % = moderate; 30 –50%= high vulnerability; > 50% = very high vulnerability

[52] Ideally, one should use weighted average tariff rates rather than simple averages since the former reflects the duties *and* the value of imports for all tariff lines. Simple average tariff rates would indeed grant the same weight to all items, independently from that item's importance in trade, thereby risking overestimating the level of protection. Trade-weighted averages are however not always readily available for all countries. In addition to trade weighted average tariffs, Table 5.12 provides therefore as a second-best option the simple average tariff rates. The vulnerability assessment regarding this index follows the following scale: 0-5 = low level of protection; 5-10 = moderate level of protection; 10-15 = high level of protection; > 15 = very high level of protection

Table 5.12 - Ranking of countries according to their potential theoretical revenue losses

Countries	Ratio EU imports / Overall Imports	Applied Tariff Rates		Tariff revenue loss Vulnerability*	Ratio Trade taxes / Total Tax Revenues		Overall Vulnerability
		Simple Average	Trade Weighted Average		%	Ranking of Countries by Quartiles	
Angola	43.82	7.45		moderate-high	3.48	1	moderate
Benin	36.59	13.3	12	high	54.05	4	very high
Bostwana	10.4	8	7.5	low-moderate	29.24	3	moderate
Burkina Faso	30.13	11.5	13.4	high	18	2	high
Burundi	40.49	12.8		high	15.79	2	high
Cameroon	35	18.6		high	11.16	1	moderate
CAR	20.85	17.5		moderate-high	22.22	2	moderate
Cape Verde	78.68	15.3	12.2	very high	20.51	3	very high
CDR	27.85	12.8		high	39.18	3	high
Chad	44.81	16.92		high-very high	5.02	1	moderate
Comoros	33.56			undetermined	50	4	very high **
Congo	43.18	18.63		high-very high	2.38	1	moderate
Cote d'Ivoire	27.52	13.22	6.6	moderate	31.37	3	high
Djibouti		30.23			0	1	
Eq. Guinea	42.72				0.29	1	
Ethiopia	18.7	18.18	11.4	moderate-high	49.02	4	high
Gabon	66.86	18.59	14.7	very high	13.87	2	high
Gambia	42.07	18.7	14.5	high	21.43	3	high
Ghana	27.77	13.01	8.6	moderate	20.63	3	high
Guinea		13.92	11.9		18.18	2	
Guinea Bissau	46.86	12.94	13.5	high-very high	40	3	very high
Kenya	17.62	12.09	8	moderate	7.87	1	low
Lesotho	7.29	9.19		low	62.37	4	moderate
Madagascar	21.47	12.14	9.3	moderate	48.36	4	high
Malawi	10.79	12.09	9.2	low-moderate	12.33	2	low
Mali	26.08	12.88	10.6	moderate-high	41.03	4	high
Mauritania	42.09	12.55		high	15.22	2	high
Mauritius	22.09	4.23	1.7	low	4.05	1	low
Mozambique	27.39	10.99	8.1	moderate	10.95	1	low
Namibia	15.77	6.3	9.3	low-moderate	44.74	4	moderate-high
Niger	31.51	13.02	10.2	high	40.32	3	high
Nigeria	29.12	10.73	10.6	high	4.44	1	low-moderate
Rwanda	22.95	18.57	17.8	high	13.11	2	moderate-high
Senegal	39.83	13.41	8.9	high	17.62	2	high
Seychelles	31.38	6.5		moderate-high	15.38	2	moderate
Sierra Leone	30.24			high	42.86	4	high
Sudan	10.61	14.29	14	moderate	7.94	1	low-moderate
Swaziland	2.68	9.47	8.9	low	54.44	4	moderate
Tanzania	16.37	11.69	9	moderate	27.52	3	moderate
Togo	43.33	13.11	11.1	high	64.86	4	very high
Uganda	19.41	11.98	11.1	moderate	43.81	4	high
Zambia	10.12	10.79	9.7	low-moderate	36.82	3	moderate

Sources: ITC, World Bank, OECD's African Economic Outlook, World Trade Organisation.

Notes: The first indicator (EU imports/Total imports) has been calculated using the International Trade Centre's statistics for the year 2004 for Comoros, 2005 for Guinea Bissau, 2007 for Swaziland, Togo and Cape Verde, 2006 for Cameroon, Gabon, Angola and Benin and for the year 2008 for the rest of the countries listed.

The ratio of trade taxes/total tax revenues has been calculated using the African Economic Outlook 2010 database on fiscal performance. Total Tax revenue comprises here direct taxes, indirect taxes, other taxes and trade taxes.

Average Applied Simple Tariffs Rate are from World Bank's databank. These rates are given for the year 2006 for Djibouti, 2007, for Cameroon, CAR, Chad, Congo, Mauritania, Mozambique and Seychelles, and 2008 for all other countries.

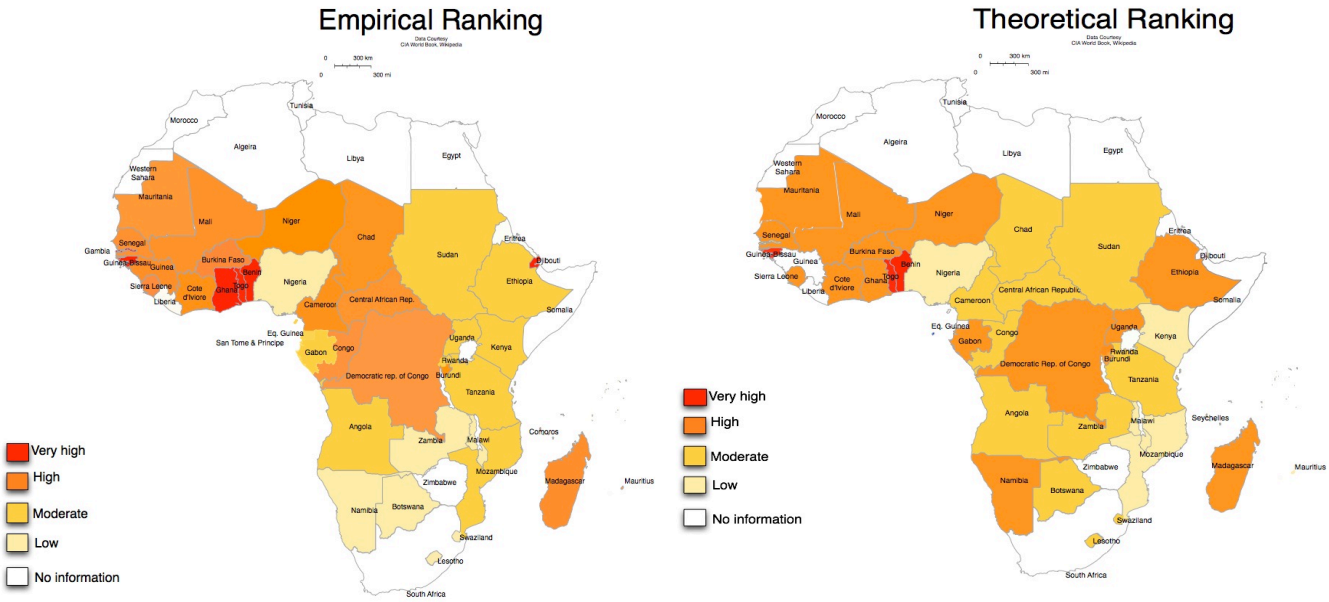
Trade Weighted Average Tariffs are from the World Tariff Profiles 2010. Weighted averages were unfortunately not available for all countries. These rates are given for the year 2007 for Angola, Gabon, Togo,Tanzania, Swaziland and for the year 2008 for all other countries.

* This vulnerability index aggregates the results from Criteria 1 and 2 described in table 6.11 ; it represents the vulnerability of a country to tariff revenue loss. Indeed, the dependence on EU imports alone is a very partial and imperfect criteria to determine ex ante the risk or/and scope of tariff revenue loss. A country can indeed be heavily dependent on EU imports, but it does not necessarily apply high custom duties on those imports. In that scenario, trade liberalisation would not have any particular adverse impact on tariff revenue. On the contrary in that scenario one could expect at worse a confirmation of the statu-quo,; at best a potential revenue increase due to possible demand effects. Conversely, a country might not be heavily reliant on EU imports but might apply on this small volume of imports, important tariff duties ; the revenue loss would then expected to be moderate to high.

** The case of Comoros should however be interpreted with caution given the lack of data on pre-EPA applied tariff rates.

It is worth noting here that this theoretical ranking seem to be particularly coherent with the results found by quantitative analyses. Overall indeed, both methods found that the fiscal impact of an EPA is likely to be particularly significant in Western and Central Africa, as illustrated by Figure 5.1.

Figure 5.1: Mapping of empirical and theoretical rankings of countries according to their potential loss of tax revenues



Note: Due to technical limitations, Cape Verde has not been able to be included in this map.

Comparing the two rankings, Table 5.13 shows that except for a few exceptions, the results obtained looking at the empirical studies are overall consistent with those based on the more theoretically determined rules of thumb described in Table 5.11. Indeed, the results of the empirical and theoretical rankings either perfectly mirror each other, or differ only by one category[53].

There are however a few anomalies between the results of these two ranking exercises, Mauritius and Namibia being two cases in point.

This mismatch between theoretical results and empirical results can be explained by two reasons. First, theoretical vulnerability criteria have been given for the years 2007-2008: they represent therefore the vulnerability of countries at the present time. As discussed, the literature on the fiscal impact of EPAs however is highly dependent on the data years it uses (see section 4). For those studies based on data from the early 2000s, there are therefore reasons to be cautious, as the tax mix in countries may have changed over time, leading to a completely different assessment when it comes to evaluating the hypothetical fiscal impact of an EPA.

[53] Given the high degree of interpretation and arbitrariness when attempting to classify countries across categories, mismatch of one category only could to a certain extent be considered reasonably satisfactory.

Table 5.13: Comparison of ranking by alphabetical order

Country	Empirical Ranking	Theoretical Ranking
Angola	moderate	moderate
Benin	Very high	very high
Bostwana	Low	moderate
Burkina Faso	High	high
Burundi	High	high
Cameroon	High	moderate
CAR	High	moderate
Cape Verde	Very high	very high
CDR	High	high
Chad	High	moderate
Comoros	Very high	very high **
Congo	High	moderate
Cote d'Ivoire	High	high
Djibouti	Very high	
Eq. Guinea	Moderate	
Ethiopia	Moderate	high
Gabon	Moderate	high
Gambia	Very high	high
Ghana	Very high	high
Guinea	High	
Guinea Bissau	Very high	very high
Kenya	Low-Moderate	low
Lesotho	Low	moderate
Madagascar	Moderate	high
Malawi	Low-Moderate	low
Mali	High	high
Mauritania	High	high
Mauritius	High	low
Mozambique	Moderate	low
Namibia	Low	moderate-high
Niger	High	high
Nigeria	Low	low-moderate
Rwanda	Moderate	moderate-high
Senegal	High	high
Seychelles	Moderate	moderate
Sierra Leone	High	high
Sudan	Moderate	low-moderate
Swaziland	Low	moderate
Tanzania	Moderate	moderate
Togo	Very high	very high
Uganda	Moderate	high
Zambia	Low	moderate

** The case of Comoros should however be interpreted with caution given the lack of data on pre-EPA applied tariff rates.

For instance, in 2005 Mauritius embarked on important budget reforms in order to become a duty-free island, drastically cutting the level of import duties on more than 1850 tariff lines. After 2005 therefore, 80% of Mauritius' tariffs lines had become duty-free[54] and the simple average tariff rate fell from 17% to 7%. This first reform was followed in 2006 by a second one aimed at diversifying the tax mix and simplifying the tax system; it increased excise duties and VAT, compensating for the loss in revenues from custom duties. According to Brenton *et al.* (2007), in the tax year 2006-2007, revenues collected at the border increased by 4 % compared with the previous tax year, despite the 2.1% decrease in customs duties as a share of imports[55]. Given that all studies under review here have used -- when assessing the case of Mauritius -- data older than 2004-5, their results are likely to give a different picture. In this specific country case, theoretical considerations might therefore provide a more reliable picture of the potential impact of trade liberalisation on government revenues than empirical findings. Ultimately, based on our rules of thumb and vulnerability indexes, Mauritius's fiscal revenues would *not* seem to appear considerably threatened by an EPA.

Secondly, from a theoretical point of view, our vulnerability indexes are not perfect indices of the potential revenue loss likely to occur following tariff liberalisation in the context of an EPA. In an ideal world, indeed, one could have easily refined our vulnerability criteria so as to give a more complete picture of the scope of expected fiscal losses. For instance, the share of EU imports over total imports does not account fully for the dependence of a country on EU imports. A more accurate index would have been to determine for each country the percentage of customs revenues collected from imports originating in the EU.

By way of illustration, while we find that EU exports represent approximately 28% of Cote d'Ivoire's imports in 2008, the EU accounted for more than 40% of Cote d'Ivoire's *customs revenue* from imports, thereby implying a higher degree of vulnerability to a potentially EPA-related trade liberalisation (Hoppe, 2010). As emphasized in Section 4, statutory tariff rates do not take into consideration the exemptions that are often granted to exporters. These exemption rates differ however according to the products and the trading partners considered (see Table 4.5). In the same vein, it should be stressed here that trade-weighted average tariff rates can in some cases vary significantly depending on the partner considered. Ideally, therefore one should also look specifically at trade-weighted average tariff rates on EU imports only.[56] Taking these parameters into consideration would be necessary to provide a theoretical assessment of the potential impacts of an EPA that would be as realistic as possible.

5.4. Section Summary: The Need for More Detailed Country Analyses

Ultimately, and as Bilal and Stevens (2009) also emphasize, the fiscal impact of EPA-induced trade liberalisation will depend upon two main factors: the level of *currently collected* tariff revenues from the EU, as well as the relative importance of tariff revenues in total government revenues.

Based on our rule of thumb, a number of general trends can be identified[57] – for example, the more restrictive a trade regime pre-EPA, the bigger the drop in fiscal revenues; the more dependent a country on EU imports, the bigger the losses, and finally, the more reliant a country on trade taxes, the larger the fiscal impact.

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54 Mauritius - Budget Speech 2005-2006 by Hon. Pravind Jugnauth, Deputy Prime Minister, Minister of Finance and Economic Development, 4 April 2005.

55 "Carnet : the Mauritius Customs Magazine", June 2007, as reported by Brenton *et al.* 2007.

56 Hoppe (2010) found for instance that in the case of Cote d'Ivoire, the latter estimate was about 5.3% in 2007, against 7.5% for imports from the rest of the world (excluding regional partners).

57 For a more detailed discussion on this subject, see Bilal and Roza (2007).

Yet the above analysis has shown a variety of likely experiences that suggest that ultimately the impact of EPAs on ACP/African economies remains best assessed on a case-by-case basis. Beyond these rules of thumb indeed, a number of additional factors will be key determinants of the overall impact of EPA tariff liberalisation on government revenues. Among those, for instance, the capacity of each country to re-organise its fiscal base and shift to other forms of taxation are a critical determinant of the scope of revenue loss resulting from EPA-related trade liberalisation.

In terms of reaching a comprehensive assessment of the fiscal impacts of EPAs, the picture remains relatively unclear despite a growing number of regional and country-level studies on the subject. One overall conclusion, however, is that there has been a general tendency to overestimate the direct fiscal losses resulting from an EPA, at least in some of the earlier studies as compared to more recent analysis. Differences in methodology, data and assumptions have contributed to a mixed picture, although it is also important to acknowledge that comparison and debate between various studies is healthy, and no forecast is likely to be definitively accurate in light of the uncertainties involved in making them. The overestimations are due mainly to methodological shortcomings, the use of older trade and tariff data, as well as the lack of information prior to 2008 on actual commitments regarding the scope and speed of trade liberalisation.

Nonetheless, the implementation of an EPA can have significant, and in some countries very serious, consequences for government revenues. For these countries, more detailed country-analyses still need to be conducted regarding the potential impact of an EPA on fiscal revenues to ensure an understanding of the potential response.

Where compensation is required, better analysis will be critical to make sure funds are provided not only in a timely and sufficient manner, but that funds are also directed towards those that most need them. It is therefore critical to ensure that decisions regarding the country-oriented allocation of compensatory measures or aid for trade (AfT) are made in relation to these imperfect, yet critical, preliminary assessments of the fiscal losses that might be expected from EPA[58]. Moreover, even though EPAs are likely in many countries to have more limited and gradual effects than expected in order for them to be politically acceptable and economically sustainable – not least in a time of crisis – a strategy to deal with these revenue losses is certainly necessary.

[58] Recent work done on the EU Commitment to Deliver Aid for Trade in West Africa and Support the EPA Development Programme (PAPED) show that there is room for improvement in this respect, as Liberia for instance is among those countries that are likely to receive the least from the EU within the latter framework (see ECDPM, 2010).

6. Reform Dynamics and Options

Notwithstanding the strengths and weaknesses of the various theoretical models of EPA revenue losses, as practical implementation of existing (interim) EPAs gathers pace, the debate is likely to shift away both from theory and rhetoric, and towards more concrete actions to address the potential revenue shortfalls, with a role for all stakeholders, including donors. This section therefore deals with the strategies that ACP countries and their partners might adopt to mitigate the negative consequences of liberalisation and take advantage of opportunities for wider reform or consolidation in the area of taxation. While examples are drawn across the ACP countries, the analysis focuses in particular on two case studies of Tanzania and Mozambique that highlight the differences and similarities between different ACP countries on the revenue consequences of EPAs.

6.1. The Reform Context: Varying Expectations and Perceptions of Fiscal Losses as a Result of Implementing EPAs

Given that the various models of EPA revenue losses lack perfect foresight and can offer only tentative indications it is perhaps unsurprising that opinions amongst officials on the issue also tend to differ amongst and within ACP countries. In some part, the views of officials and stakeholders at the country level continue to reflect long-held positions on the consequences of EPAs more generally, with 'EPA sceptics' highlighting the potential negative effects of the agreements on revenues and competitiveness, and 'EPA supporters' putting greater emphasis on the dynamic opportunities. Underpinning such views however, is the fact that the context of reform is very different in ACP countries, depending on factors such as the initial baseline position, on-going dynamics of regional integration, and the available options for reform. Some of these factors are explored in the context of two case study countries below.

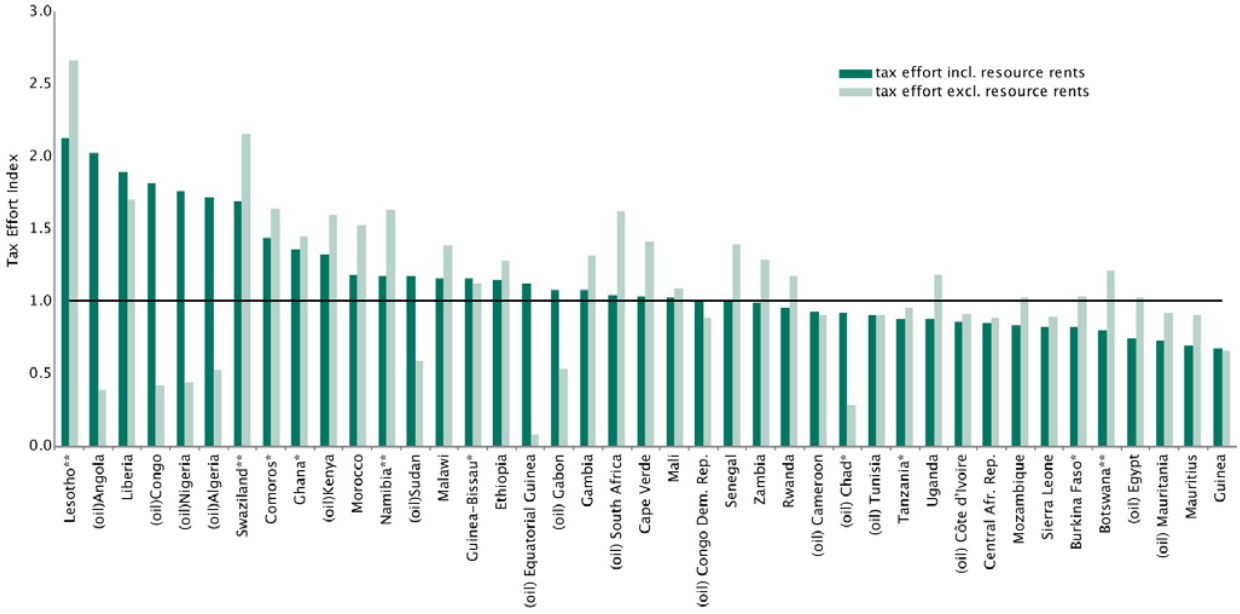
One form of measuring a country's potential room for raising additional revenues is to estimate its tax effort. Based on a range of country characteristics and a cross-country regression model, it is possible to gauge if a country is above or below its expected revenue level according to its characteristics (OECD-AfDB, 2010). A tax effort of 1.0 implies that a country's revenues are as expected according to its characteristics. Although imperfect as a measure given that the "expected level of revenues" depends very much on the sample of countries included, it nonetheless remains a useful indicative tool.

Figure 6.1 presents the estimated tax effort for 42 countries from the African Economic Outlook 2010. As this shows, 24 countries have a tax effort index above one, indicating higher than expected revenues given their characteristics, and 18 countries have an index less than one. Given current economic structures, these latter 18 countries potentially have room to raise more revenue. Of course, this does not take account of having the capacity or willingness to do so but reflects potential "room for manoeuvre".

As the figure shows, those countries with a low overall tax effort (including resource rents) and therefore most room to make up lost revenues include Guinea, Mauritius, Botswana, Burkina Faso, and Sierra Leone. All of these except Botswana and Mauritius[59] were estimated to expect a "high" fiscal impact from an EPA in the previous section while Botswana was estimated to expect a low impact. As such, if indeed these countries do suffer under an EPA, their economic characteristics suggest that they might have room to increase revenues based on current conditions.

[59] See regarding Mauritius, the explanation given in Section 5.3

Figure 6.1: Tax Effort in Sub-Saharan Africa



Notes: (*) 2006 data , (**).
The tax effort measures of Botswana, Lesotho, Namibia and Swaziland reflect their membership in the Southern African Customs Union (SACU), which collects customs duties centrally and redistributes them amongst members.
Source: Authors' calculations, based on *AEO country surveys*, 2010.

StatLink http://dx.doi.org/10.1787/848521801284

Source: OECD-AfDB (2010)

On the other hand, those with a high effort, and therefore little room for maneuver, but also likely to suffer a "high" negative fiscal impact from an EPA include the Comoros, Ghana, and Guinea-Bissau. These countries therefore represent the most worrying cases in terms of recuperating lost revenues although the situation for Ghana is likely to change with the coming on stream of its oil resources.

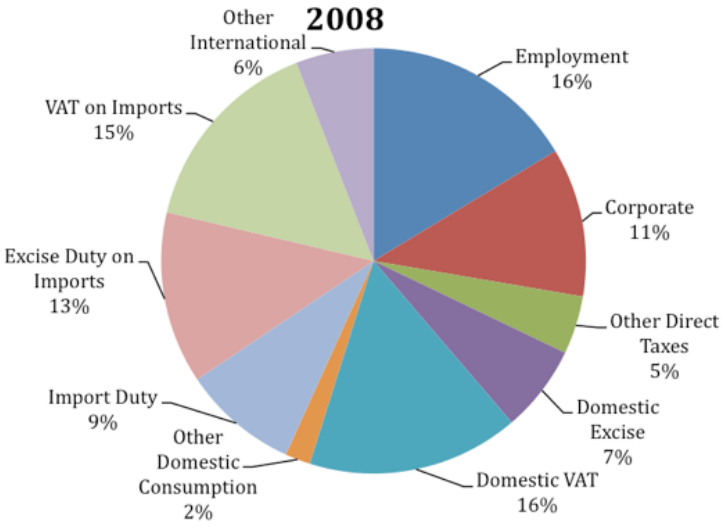
For the two case study countries examined below, Mozambique and Tanzania, both were estimated to expect "moderate" impacts. In Figure 6.1, their tax effort is below but close to 1.0, implying that there may be only limited room for extracting further revenues under current economic conditions. Although neither of the two case study countries is expected to suffer the most from EPAs, the similarity of their situations and difference in perception regarding coping mechanisms are of interest.

6.1.1. The Reform Context in Tanzania

In the ranking exercise carried out above, Tanzania was estimated to expect a loss of -0.19 and -14.66 percent of total revenues due to an EPA. Clearly this is a wide range and challenge, but even at the highest level does not represent insurmountable problems for recuperating revenues.

Nonetheless, Tanzanian officials familiar with the negotiations emphasise the significant proportion of revenue that continues to be derived from taxes of all kinds (i.e. not just customs duties) on imported goods: in 2008, some 43 per cent of total revenues originate from imported goods as shown in Figure 6.2. However, it should be remembered that not all of this revenue is under threat although the tax base for VAT and excise taxes may decline, depending on the elasticity of demand and what this means for imported values.

Figure 6.2: Tax Structure in Tanzania



Source: derived from Table 3, Tanzania Revenue Authority Third Corporate Plan[60]

On another note, flexibility in the EPA liberalisation schedule means that some goods are excluded from liberalisation, which in Tanzania's case amount to around 17 per cent of imports, including some 'big ticket' revenue-generating products which will continue to attract duty.

Box 6.1: The 'Base Effect' of Duty Reductions on Other Taxes: the case of Tanzania and Mozambique

Estimates of the significance of the 'base effect' of customs duty reductions on other taxes are likely to differ from country to country, and depend on the specifics of the tax system being examined – in particular the depth of tariff cuts and the rate of VAT. Nevertheless, an indicative example from Mozambique – which applies a VAT of 15 per cent – showed that after a reduction in tariffs on SADC goods in 2009, for every $5.8 equivalent of lost duty revenue, $1 of VAT was also lost.

In Tanzania the ratio of lost VAT might be expected to be higher than this, due to the higher rate of VAT. The issue of VAT has in recent years been a sensitive item on the reform agenda, with a reduction in the rate from 20 per cent to 18 per cent to bring it closer in line with regional EAC partners. It is also important to note that since excise duties are applied in the same way, the 'base effect' may be therefore even more significant, again depending on the price impact on demand.

In addition to this potential static effect, Tanzanian officials emphasise the potential dynamic impact of tariff reductions. There are broad fears in Tanzania that the effects of increased competition with EU suppliers may lead to the collapse of domestic industries, including some major tax-paying firms. Officials emphasise that this 'competition effect' of tariff reduction will also affect the wider taxation situation by motivating firms to lower their declared profits while if indeed employees are laid off, personal income tax revenues will also decline with potential implications also for consumption tax revenues as disposable incomes decline.

[60] According to OECD-AfDB (2010) data, total trade taxes (including all international taxes and transactions) in Tanzania accounted for approximately 27% of total tax revenues. The discrepancy in data between Table 5.12 and Figure 7.1 is therefore here noticeable, and could be due partly to the use of different dataset/ accounting methods.

As discussed above, tariff liberalisation itself is likely to lead to lower prices for goods and resultant increases in disposable incomes, with subsequent growth in revenues to partially offset falling customs duties. Indeed, much of this argument is acknowledged by officials who emphasise clearly that lower tariff revenues may not necessarily create problems *if* they are accompanied by timely development assistance that allows the domestic economy to respond positively to trade liberalisation, leading to economic growth and by consequence also to increased tax revenues from a broader tax base. The argument that assistance needs to be provided in order to reorient the tax base towards better collection in a growing domestic economy is a more nuanced and specific restatement of the longstanding and more general call for trade liberalisation undertaken by ACP countries to be complemented by development assistance, in the form of EPA accompanying measures or broader 'Aid for Trade'. This aspect is discussed below.

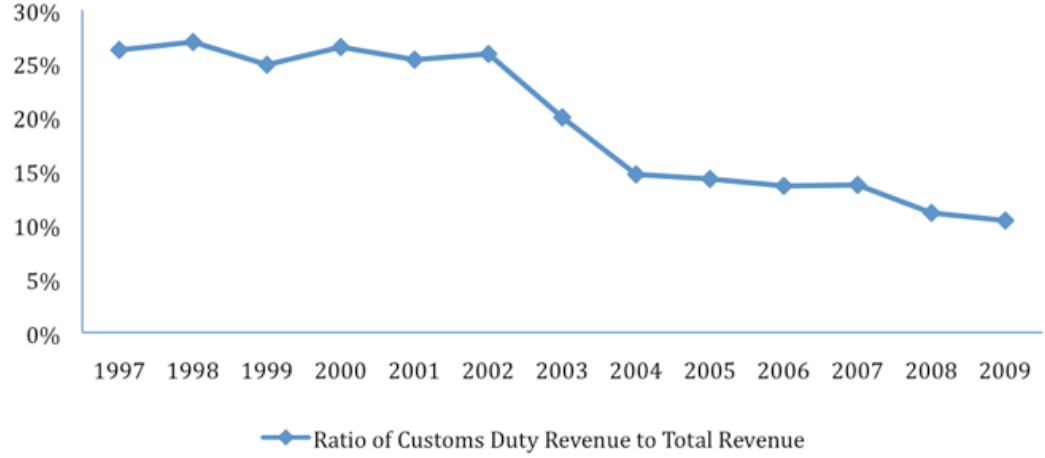
Finally, in terms of the political context, the difficulty for hesitant governments facing the prospect of trade liberalisation is that the potential for revenue losses are immediately apparent, while the benefits will only be seen over time. The strategies for addressing fiscal loss in both Tanzania and Mozambique are discussed below.

6.1.2. The Reform Context in Mozambique

In contrast to their counterparts from Tanzania, officials from Mozambique who have followed EPAs tend to downplay the revenue consequences of such an agreement for their country, for a number of reasons that illustrate the diversity of country experiences.

Firstly, Mozambique's officials point to their lower reliance on tariff revenue over recent years. Regardless of the controversies surrounding EPAs more generally, such an agreement would fit well within the pursuit of a more open and liberalised economy, which is a key element of the government's development policy. Indeed, the government attributes a large part of the strong economic growth since the end of civil war in 1994 to a more liberalised economy, and is keen to pursue further reforms to encourage private sector-led growth. As a result, the country embarked on economic reforms including trade and tariff liberalisation and tax reform, resulting in a lower reliance on customs duties, as illustrated in Figure 6.3. Naturally, the lower reliance on customs duties means that the fiscal effects of an EPA are likely to be lower than other countries that are more dependent on them for revenue.

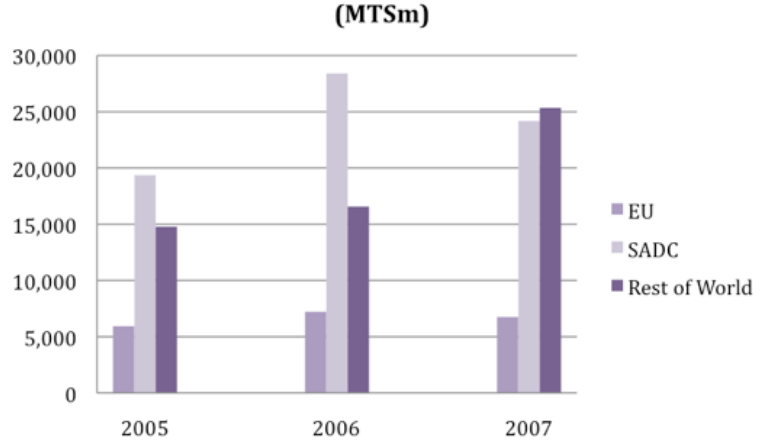
Figure 6.3: Customs Duty Revenue as a Percentage of Total Revenue in Mozambique, 1997-2009



Source: Autoridade Tributária de Moçambique

Secondly, the SADC Protocol on Trade in Goods is currently being implemented, and has already begun to erode revenues coming from customs duties, regardless of EPA liberalisation. Figure 6.4 shows that, taken together, SADC is now Mozambique's foremost trading partner, with around 40 per cent of imports coming from the region – by contrast imports from the EU represented 12 per cent of total imports in 2007, falling from 15 per cent in 2005. Importantly, the overwhelming majority of SADC-originating goods – some 93 per cent of the total – comes from neighbouring South Africa.

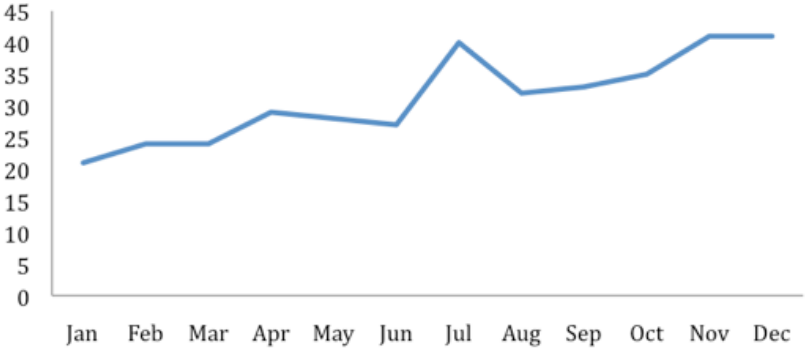
Figure 6.4: Mozambique Structure of Imports 2005-07



Source: Autoridade Tributária de Moçambique

This growth in imported goods from SADC to Mozambique has continued in more recent years as implementation of the Protocol on Trade in Goods has progressed. In 2008 liberalisation was completed on a second batch of goods, with a final liberalisation tranche scheduled to be completed by 2012, including significant further opening to South African goods. The most recent analysis undertaken by the *Autoridade Tributária de Moçambique* shows that imports from SADC grew further in 2009 to reach close to MTS30bn, illustrating the effect of the agreement on actual trade flows. It is also worth noting that the uptake of preferential rates available under the agreement virtually doubled over the course of 2009, the year after the second tranche was liberalised (see Figure 6.4)

Figure 6.5: Percentage of SADC-originating imports entering Mozambique at preferential rates during 2009



Source: Autoridade Tributária de Moçambique

Perhaps most pertinently, Mozambican officials point out that many of the goods being liberalised under the EPAs are capital goods or intermediate inputs that in any case typically enter Mozambique under special duty exemptions given to large investment or aid projects under the Investment Law. This point was raised in terms of the methodological issues above. One consequence of this is that while some theoretical models might point to Mozambique losing significant amounts of revenue based on assumptions about how much customs duty is collected, and on data that does not reflect recent shifts in the structure of trade – in reality the losses could likely be less severe. Even where liberalisation of such goods does result in revenue losses, officials point out that at the same time the reductions in prices are more likely to act as a spur on development rather than create negative competition, in line again with Mozambique's general development strategy.

While recognising the usefulness of research they produce, the Mozambique case therefore aptly demonstrates the need for moving beyond models, to more in-depth and focused case study analysis. The comparison with Tanzania is also instructive given the similarity of expected revenue losses but the very different expectations of what this implies. Estimates from Mozambique's own analysis conducted at the time of preparing the tariff liberalisation offer shows that expected revenue losses from EPA liberalisation to be in the region of MTS 500m, equivalent to around 0.3 per cent of GDP: this would equate to around 1.5 to 2 per cent of total revenues. In more recent analysis the estimated losses have been revised downwards, probably in part as a result of the aforementioned shifts in the pattern of Mozambique's trade.

6.2. Strategies to Address Fiscal Losses Related to EPA Implementation

In many ways, the solutions that have been identified for dealing with the revenue consequences of EPAs range from those that have been proposed in the context of negotiations – seeking to establish close links between liberalisation commitments and compensatory financial assistance or Aid for Trade – to more general reform measures aimed at increasing the tax-raising capacity of ACP countries, which are further removed from the specific issue of EPAs and form part of broader fiscal reform agenda. In the former group, solutions such as direct compensatory finance or guaranteed increases in levels of AfT are somewhat familiar from the wider debate on EPAs.

In terms of the broader developing country fiscal reform agenda, measures range from building the administrative capacity of tax administrations to target specific groups of taxpayers, to tackling international tax issues, such as tax evasion by multinational actors, at a bilateral or global level.

These are now addressed in turn.

6.2.1. Financing Mechanisms for 'Direct Compensation' of EPA Fiscal Losses

While in the long term an EPA may generate positive dynamic effects, there will be some direct revenue losses in the short term. If tackling the long-term negative impacts of an EPA on government revenue may be at least partly addressed through fiscal policy and administration reforms (see below), short-term public revenue losses will be more difficult to compensate for, in particular in the context of the recent global crisis. It is in this context that the demand for financing mechanisms for "direct compensation" of EPA fiscal losses has been formulated.

For instance, in the West Africa region, one long-running debate during the negotiations was the extent (if at all) to which the EU would provide 'compensation' for the fiscal losses that were envisaged to occur as a result of EPA-related liberalisation. In this regard, one concern of the West African negotiators was a potential conflict between the need to liberalise under the EPAs, while simultaneously keeping in line with

strict budgetary requirements of the international financial institutions – most notably the IMF – that were laid down as conditions for their support. Given that a significant number of ACP countries operate cash-based budgets, a drop in tariff revenues, without compensatory action of some form, could potentially lead to immediate cuts in expenditure.

It is worth noting in this respect that it is with a view to assessing the "net fiscal impact of an EPA", for which the EU formally agreed to compensate temporarily[61], and that West Africa and the EU decided in 2007 to conduct an impact study with a network of experts in West Africa using a complex Computable General Equilibrium (CGE) model (see Annex 3 for more information).

As a result of such arguments, countries in the West Africa region were successful in negotiating specific commitments in this area with the EU. The interim EPA between the EU and Ghana for example provides for dialogue and 'supporting measures' from the EU with regard to 'Cooperation with Respect to Financial Adjustment', with Article 8 stating that:

> 1. "The Parties recognise the challenge that the elimination or substantial reduction of custom duties provided for in this Agreement can pose to Ghana, and they agree to establish a dialogue and cooperation in this field.
>
> 2. In the light of the liberalisation schedule agreed by the Parties in this Agreement, the Parties agree to establish an in-depth dialogue on the fiscal adaptation measures to eventually ensure the budgetary balance of Ghana.
>
> 3. The Parties agree to cooperate, in the framework of the provisions of Article 4 [on Development Finance], notably through the facilitation of supporting measures in the following areas:
>
> (a) contribution in significant proportions to the absorption of the net fiscal impact in full complementarity with fiscal reforms;
>
> (b) support to fiscal reforms so as to accompany the dialogue in this area".

It naturally remains to be seen how this clause will be implemented, in particular the interpretation of 'supporting measures' and 'net fiscal losses'. However in the West African view, this commitment is taken to mean that the EU will provide a specific amount of compensatory finance to cover fiscal losses, on the basis of those that are identified in the on-going CGE study that is supported by both sides (see Annex 3). It is also worth noting that at its Council Meeting of 27 May 2008, the EU has offered to allow regions to import clauses from one EPA to another, meaning that any other ACP region could also in theory include such a clause in their agreement with the EU.

[61] The very principle of a compensation transfers from the EU in order to neutralize the net fiscal impact of an EPA (and yield in the long run positive results in terms of both investment and growth levels), seem to be well established in the negotiations.

6.2.2. EPA 'Accompanying Measures' Leading to Higher Tax Collection through Economic Growth

A key strategy advocated both by ACP officials to deal with fiscal losses – and a broader theme of the EPA and trade liberalisation debates more generally – is for trade agreements to be accompanied by increased levels of development support as well as flanking measures (some of which are not included in the EPA such as reductions in agricultural subsidies) that would allow ACP economies to reap the benefits of market access provided within the agreements and to become more competitive. This in turn would lead to increased tax collections in line with general economic growth. This call is made especially by those LDCs such as Mozambique and Tanzania for whom the market access-related benefits of EPAs are less attractive relative to other preference schemes.

The general debate regarding EPA complementary measures and 'Aid for Trade' is well established and has been covered in greater detail elsewhere[62]. Essentially however, both sides of the ongoing negotiations have accepted the rationale for Aid for Trade to be provided in conjunction with EPAs. The EU has highlighted its own contribution through its 2007 strategy on AfT, through numerous EU Council declarations, and notably within a recent and detailed response at the regional level in West Africa[63]. Nevertheless, discussions with negotiators reveal that contentions still remain for a number of ACP countries that have argued for a more explicit linkage – for example through legally binding financial commitments – between EPA-related assistance and other provisions, within the 'development chapter' of the agreement.

While requests from the ACP side for increased development assistance have sometimes been criticised for being too vague in character, in the specific context of addressing the fiscal consequences of EPAs, the argument that the agreements must be growth-enhancing are given some justification and illustration, in light of the clear linkages between economic growth and tax revenue. Should the overall economic effects of EPA turn out to be negative for liberalising countries – through their direct effect on taxation and their indirect effects on the domestic industry and the wider economy – then it seems quite likely that tax revenues will be one of the key channels that may suffer most quickly and visibly, highlighting the importance of a sustained export and domestic growth response.

In this respect it is important to understand the political economic limitations of domestic tax reforms.

6.2.3. Wider Tax Reform to Broaden the Tax Base and Increase Compliance

While a natural approach to addressing the fiscal losses associated with EPAs is to seek guarantees and solutions within the context of the agreements themselves, most parties also recognise that if EPAs are to be ultimately successful, they need also to act as a catalyst for wider reforms in ACP/African countries, to create or strengthen an enabling environment for growth and development. In this regard, it is worth emphasising the opportunity presented by the EPAs – and their implication that ACP/African countries will be required to fill a fiscal gap, however large or small it may be – to build on recent fiscal reforms, in particular as part of a strong emerging agenda on domestic resource mobilisation in ACP/African countries.

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62 Lui. D., 2008. The Aid for Trade Agenda and accompanying measures for EPAs: Current state of affairs, (ECDPM Discussion Paper 86), and ECDPM (2009)

63 Council of the European Union (2007). EU Strategy on Aid for Trade: Enhancing EU support for trade-related needs in developing countries - Conclusions of the Council and of the Representatives of the Governments of the Member States meeting within the Council. Available at : http://register.consilium.europa.eu/pdf/en/07/st14/st14470.en07.pdf. See also: Council of the European Union (2010), Council Conclusions: EPA Development Programme (PAPED), 10 May 2010.

In terms of the recent history of tax reforms in ACP countries, there have been some notable successes, for example on correcting institutional weaknesses to create more independent and efficient tax administrations, and in establishing and transferring best practices. This progress, coupled with strong economic growth, has translated ultimately into increases in revenue collection rates themselves, in some cases dramatically. In the case of Tanzania, revenue collection has grown – albeit from a low base – at a rate of roughly 20 per cent in real terms in recent years, increasing the share of revenue in GDP from 10.8 to 17.1 per cent in the space of just a few years, with a projection to reach 20.3 per cent in coming years (see Table 6.1).

Table 6.1: Revenue Collection in Tanzania (Actual and Projected) 2003/04 to 2012/13, TSh bn

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Nominal GDP	13039.3	14968.4	16857.4	18914.7	22349.7	25616.0	29234.3	33485.9	38374.9	43977.6
Total Revenue	1405.0	1695.2	2040.6	2557.3	3333.1	4375.1	5112.5	6160.1	7406.4	8936.8
Revenue Yield (%)	10.8	11.3	12.1	13.6	14.9	17.1	17.5	18.4	19.3	20.3

Notes: Figures exclude Zanzibar. Projections from 2008/09 with nominal GDP growth assumed at 14.8 per cent
Source: Tables1 and 3, Tanzania Revenue Authority Third Corporate Plan

At the national level, domestic resource mobilisation is a key priority of the Tanzanian government, as outlined in its National *Mkukata* Development Strategy. Increasing domestic tax revenues is largely focused on three interlinked areas:

- Taxation rates and the tax mix, including issues around the system of tax exemptions
- Broadening the tax base by including new taxpayers
- Increasing compliance amongst the existing tax base

As in a large number of ACP countries in the last decade or so, the taxation system has undergone significant reform both in the types and rates of different taxes used, and the administration that manages and collects them. For example, the two biggest reforms of the 1990s were the establishment of independent – often target-driven – tax authorities and the introduction of Value Added Taxes (VAT).

An important initiative of more recent years has been to reorient the tax administration to focus on specific groups of taxpayers rather than specific taxes – in particular to split administration over the small cluster of very large companies that contribute the majority of tax, and the wider mass of smaller and medium-sized enterprises that present an entirely different set of service delivery and compliance challenges. In October 2001 Tanzania was at the forefront of a recent trend amongst its peers, in establishing a Large Taxpayers Unit (LTU) to foster a more effective approach on compliance as well as a more streamlined service for selected large companies (defined by law as having turnover of greater than TSH10bn) or in particular sectors such as mining, ICT and tourism. By integrating responsibilities for both VAT and income tax collection – which were previously housed in separate departments each mandated to deal with all firms in general and pursuing a single strategy – the LTU has been able to tailor its approach to bring together relevant expertise, in particular in building a stronger audit capacity and expertise of the businesses practices of specific sectors. As shown in Table 6.2, the number of large taxpayers under the surveillance of the unit has seen a four-fold increase in the eight years since the unit was established.

Along with economic growth, the improved compliance amongst this tranche of 400 companies has driven in large part the increase in tax revenue collections over the same period: the heavy reliance of taxation revenues on large taxpayers is demonstrated in Table 6.3.

Table 6.2: Expansion of Numbers of 'Large Taxpayers' in Tanzania

Year	No. of Large Taxpayers
2001	100
2008	370
2010	400
2013 (target)	450

Source: Tanzania Revenue Authority

Table 6.3: Contributions to Domestic Different Taxpayer Bands to Revenue in Tanzania

Annual Turnover	Number of Taxpayers	Contribution to Domestic Revenue	Contribution to Total Tax Revenue
0 to 3m TSH	105,500	> 0.05%	> 0.05%
3m to 7m TSH	109,900	0.1%	0.05%
7m-14m TSH	68,600	0.1%	0.05%
14m-20m TSH	33,600	0.1%	0.05%
20m-40m TSH	26,650	13.5%	7.6%
41m-1bn TSH	225,900		
1bn-10bn TSH	1,633	13.7%	7.8%
Large Taxpayers (> 10bn TSH)	400	72.6%	41.3%

Source: Tanzania Revenue Authority

At the same time, the reorganisation of the tax administration to focus on tax brackets rather than tax type has enabled a newly integrated Domestic Revenue Department to focus its efforts in recent years exclusively on issues more directly related to smaller and medium-sized taxpayers. One priority in this regard is the simplification of tax administration to ease payment by SMEs, in particular through the roll-out of electronic means of payments. There has been recent success in enabling electronic bank transfer payments; the next step is to enable fully paperless transactions online. Another more general goal is to integrate informal sector enterprises into the tax system through tax awareness and education programmes, and through area-based mapping approaches such as the Block Management System, which assigns tax officers to particular local areas for more efficient compliance and an improved relationship between tax officers and local businesses. As a result, the Domestic Revenue Department has also seen growth in the numbers of its registered taxpayers, from 308,000 in 2008 to 570,000 in 2010, with a target of 700,000 by the end of the third corporate plan in 2012/13. Within these efforts, a key priority is to encourage voluntary tax compliance, with a target of 80 per cent of revenue collected in this way, while simultaneously strengthening capacity for conducting audits and investigations of potentially non-complying firms, based on assessment of risk.

Box 6.2: The Private Sector and Dynamics of Tax Reform in ACP Countries

Relations between the private sector and government on the issue of taxation are quite varied amongst ACP countries, with a potential split between those who are 'catching up' in terms of tax revenue collections, and those relatively high-tax ACP countries where resistance to further increases is more difficult, and where further reform may therefore prove more difficult.

In some countries – particularly those where taxation levels have been historically lower, including many LDCs – private sector associations are often supportive of government efforts to increase taxation. This is perhaps surprising, since businesses might naturally be expected to resist increases in taxes, yet there may be a number of natural reasons for this. Firstly, the private sector may perhaps view the burden of taxation as less serious in relation to other problems, such as an inadequate electricity supply or poor infrastructure (as is the case in Tanzania for example). Taxation reforms to broaden the tax base may also have been popular amongst tax-compliant businesses, because this has allowed headline rates to fall. In Tanzania, the local chamber of commerce points to the successful reform of a local tax in Dar-es-Salaam, where the city previously levied a tax on 5 per cent of turnover, but was able to reduce the rate to less than 1 per cent after an effort to increase the rate of compliance. Even where reform does increase the overall burden of taxation, the general acceptance of higher taxation may also point to the success of education campaigns about the need to pay taxes. However, private sector representatives also point out that while taxes increase there should also be related increases in the level and efficiency of services, as well as reforms to improve the business environment. In Mozambique the main private sector organisation is hopeful, for example, that an increase in compliance will enable cuts in fees charged for business licences.

At the same time in other countries – particularly the more developed ACP countries where the business environment is perceived to be relatively better – the tax burden is beginning to be seen as an increasing problem. For example, in a recent World Bank Enterprise Survey of the most pressing constraints on business in East Africa, Kenyan firms ranked tax rates as their leading concern with 27 per cent of firms highlighting this issue; the corresponding figures were just 4 per cent for Tanzanian firms while 77 per cent ranked electricity as their main concern. While such surveys only give a snapshot of the problems faced by firms, they suggest where countries might want to focus their efforts if they wish to tackle the most important 'binding constraints' to growth, while others have greater scope for increasing revenues.

In terms of compensating for EPA-related revenue losses, this tentatively suggests that some countries may find it easier to adjust than others: perhaps counter-intuitively, it may be that smaller lower-income economies face less resistance to tax increases, by virtue of the scope that still exists to expand the tax base, and the momentum of recent reforms. For the large ACP economies, it may also be that some of these now see themselves in competition with other emerging non-ACP countries, which perhaps further reduces their scope for tax increases.

Finally, it is important to note that most countries now have in place consultative mechanisms to enable discussion of reforms to the economic environment – including taxation – to take place between government and private sector. In Mozambique for example the issue of this government-business dialogue is given a high priority, with an annual high-level meeting between private sector representatives and the President, bi-annual meetings with the Prime Minister and regular meetings with the Minister of Trade through a committee on fiscal reform, customs and international trade. Recent forums have discussed the elimination of pre-shipment inspections and procedures for the reimbursement of VAT. Donors also generally have 'private sector working groups' amongst embassy staff that work to coordinate their assistance in this area with government, and could also play a role in raising the profile of taxation issues and foster a coordinated response to necessary reforms. This heightens the possibility of

establishing tax policies that simultaneously target growth policies although in many countries this balance has yet to be achieved.

6.3. Tax Reform Challenges Going Forward

Despite the relative success of tax administrations in the last few years, a number of challenges remain. While it is hard to generalise about these across different ACP countries, a number of common themes can be discerned[64]:

- *The effects of the global financial crisis:* while the impact of the global financial crisis has not been felt as strongly in Africa as in developed countries, tax receipts have fallen, leading to downward revisions of targets by tax authorities[65]. While economic growth may rebound in those ACP/African countries relatively unaffected by the crisis, the potential long-term effects on levels of development assistance will present an additional challenge (or opportunity) to refocus efforts on expanding the domestic revenue resource. This combines with increasing pressure in developed economies to justify scarce resources being spent on foreign aid. As a case in point, David Cameron the UK Prime Minister made precisely this point on a recent visit to Pakistan.

- *Improving efficiency of tax collection further:* following the waves of administrative reforms of the last few years, a number of tax authorities have identified further initiatives and capacity improvements to yield further improvements. As general examples, the range of initiatives encompasses improvements to tax management, such as the Block System outlined above for Tanzania; strengthening capacity; opening new offices in the regions within a country; improving the skill base of tax officials in key functions such as auditing; and investment in infrastructure such as new client IT management systems in customs and VAT. Tax officials in particular point to the potential for establishing fully electronic payments systems, although this would potentially require a major investment of both human and financial resources for many ACP/African countries. There is still some scope for best practices to be rolled out in countries, which have yet to do so, as well as for increased cooperation and exchange between tax administrations in different ACP/African regions.

- *Further expanding the tax base:* building on the success of taxation education campaigns that have been conducted in many ACP/African countries, authorities point to the potential to expand the tax base in rural areas in particular – for example in Mozambique more than 81 per cent of revenues are still generated in the capital Maputo[66]. Although the concentrated nature of tax receipts also reflects the economic reality in ACP countries, this highlights the dependence of future growth receipts upon wider growth in the economy, including in rural areas. At the same time, fiscal education and awareness campaigns have also been attributed in many countries with increasing compliance amongst potential taxpayers, ranging from small businesses to diaspora who still might be tax-liable. Such campaigns have achieved progress through a mixture of 'carrot' (by making the moral case that people should contribute to the development of their respective countries) and 'stick' (by making them more aware of the potential penalties for failure to pay taxes, and the compliance measures that authorities are taking).

64 See for more information in this respect: Byiers and Dalleau (2011).
65 Conservative estimates at the time indicated for instance a revision by around 3 to 5 per cent in 2010.
66 The recent introduction of a new regime for small businesses – the *Imposto Simplificado para Pequenos Contribuintes* – is expected to assist in increasing the number of such businesses paying taxes.

- *Reform of exemption systems, particularly for large investment projects:* while discussions on entirely new taxes are currently rare in ACP/African countries after the reforms of the 1990s, one area of growing debate – echoed now also by institutions such as the IMF – is an increased questioning of the role of exemptions for large projects. In Mozambique for example, there was a feeling that following its emergence from civil war in 1994 the country needed to do everything possible to attract foreign investment to build a functioning market-based economy. Similarly in Tanzania, large companies have been offered similar kinds of tax incentives, which include tax write-downs for capital investments or losses, and which can also be carried over from year to year. At this point however, a number of countries are beginning to debate a reassessment of such incentives. This is perhaps partly as a consequence of increased bargaining power on the part of ACP countries that now have greater options, recent improvements in transparency in key sectors such as mining and forestry, or taking advantage of momentum created by recent political shifts against 'unfair' taxation practices in developed countries. In any case, donors can assist African countries to better monitor contracts (for example to assess assumptions about rates of expected investment, revenues and depreciation contained in original feasibility proposals). In some cases African officials have expressed their desire to renegotiate some of the exemption elements of large contracts, or find other ways to encourage beneficiary firms to contribute higher taxes.

- *Re-addressing the fiscal contract*: related to the above issues, a growing literature focuses on the importance of the "fiscal contract" between the state and its citizens, something that seems particularly relevant in addressing revenue shortfalls stemming from an EPA. Based on a historical understanding of state formation and the importance of taxation and citizen representation in government decisions, a perception of fairness is increasingly seen to be very important in encouraging tax compliance. Where some groups or sectors of the population, or specific types of firms are seen as receiving specific benefits through exemptions or can escape the system through informality, the inclination to avoid taxes is larger than where there is a perception of fairness. In cases where revenues are low, whether due to an EPA or another factor, there is scope for government to engage more closely with the private sector to come to an agreement on what is an acceptable level of taxation, and what the state should provide in return for this. Although further work is required to identify the precise form this fiscal contract dialogue should take, the need for stronger engagement and thus tax compliance rather than coercion appears to be a potentially fruitful way of thinking about tax reform.

- *Improving Budgetary Systems:* Related to the above point, tax systems and a sense of tax justice relate to the effectiveness of the overall budget system, including revenues and expenditures. Tax compliance is likely to be higher where the government is seen to be efficiently using the resources it collects. As such, improvements and explicit linkages drawn between taxation and government expenditures, and explicit attention paid to the impact of tax policy on economic growth are likely to further increase compliance and reduce the need for coercion. Too often, tax policy is formed in isolation from the wider budgetary process and without analysis of its impact on economic growth: an overall revenue target based on rough GDP forecasts is passed to the revenue authority as its performance objective. The incentives created and the potential negative implications of such a system have yet to be examined more fully but might be usefully brought to the fore in tax policy discussions.

- *International Issues in the Tax Area:* Going beyond domestic tax policy, an important wider agenda on international tax cooperation has begun to emerge in recent years, particularly as a result of the current global financial crisis. In general, the increasing globalisation of recent years has

undoubtedly made taxation more complicated for ACP/African countries in particular, with greater possibilities for individuals and companies to avoid and evade tax, including for example by conducting entire transactions overseas and bypassing the domestic financial system altogether. The misuse of transfer pricing techniques to shift the burden of taxation unfairly towards low tax jurisdictions is also a phenomenon that is often mentioned, yet difficult to tackle due to the transnational nature of transactions and the resources and skills that are needed to carry out investigations and prosecutions. At this point however, increased awareness and recent shifts in public opinion in developed countries also offer an opportunity to achieve international progress on this front, including for example through new double taxation agreements on information exchange and increased transparency, and building expertise within ACP/African tax administrations to assess potentially harmful business practices. Here, there are clear incentives for developed and developing countries to work in partnership in what some have termed an 'international tax compact'.

6.4. Section Summary

This section has presented a range of aspects relating to the reform agenda, with a focus on Tanzania and Mozambique. Although both countries are estimated to face a similar impact from an EPA, and if anything Mozambique is expected to fair worse, one of the most important elements to emerge from the case studies is the different perceptions of officials with regards the final outcomes. As such, the policy responses to cope with the fiscal impact of EPAs in ACP/African countries are likely to be context specific, depending on the scale of expected losses but also on a range of other factors, such as the existing tax mix, the strength of the economy and breadth of the tax base, tax-raising capacity (in terms of the ease of implementing new taxes or strengthening the collection of others), or even whether there is scope for current spending levels to be reduced as government services are delivered more efficiently.

In general, one conclusion might be that after the major institutional and systemic reforms to tax systems in the 1990s, the focus of many ACP/African countries in recent years has been more on a strategy of widening the tax base and fostering compliance. Indeed many ACP/African countries are now focused on continuing this strategy given recent successes in increasing their tax collections and revenue shares substantially. At this point however, a great deal hinges on the sustainability of existing reforms and, perhaps more precariously, whether further growth to the tax system can yield the same level of benefits seen in the last few years.

Moreover, in terms of the consequences of EPAs, our analysis has shown that the reforms that may be required to compensate for customs duty losses at the margin may be more difficult in the context of taxation systems that have *already* undergone significant reform over recent years, and where potential for further reform may be limited. The degree of tax effort prior to EPAs will have an important impact on their ability to raise further revenues under existing economic structures (OECD-AfDB, 2010).

A key fundamental challenge will be the need for political leadership and commitment to address EPA-related fiscal adjustments and broader fiscal reforms, as an integral part of a domestic resource mobilisation agenda, with appropriate development and technical support. The debate should thus shift away both from theory and rhetoric, towards more concrete actions to address the potential revenue shortfalls, with a role for all stakeholders, including governments, the private sector, researchers and donors, but also at all levels, including at the regional level. Regional initiatives could indeed play an important role in the strategy aimed at addressing the fiscal impact of an EPA, all the more since for some countries, replacing trade taxes that they are likely to forego in the context of an EPA, might be an even more pressing concern given the substantial liberalisation that has taken place in the context of regional

integration processes. Section 7 will address these questions by examining the regional dimension of EPAs, fiscal consequences, and the linkages between the two.

7. The Regional Dimension of EPAs and Revenue Implications

In addition to national level issues, discussed above, the regional/national dimension to the EPA negotiations has also been important. There remains great uncertainty over the final outcome of the EPA process, with many countries still engaged in negotiations towards comprehensive EPAs[67] and/or EPAs with regional liberalisation schedules that are consistent with their internal integration processes. One of the biggest concerns throughout the EPA negotiations has indeed been 'their regional dimension". As such, since the beginning of the negotiations in 2002 a great deal of emphasis has been put on ensuring that EPAs ultimately serve to enhance efforts at promoting intra-regional trade and furthering regional integration (Box 7.1).

One issue at the heart of the regional dimension of EPAs was whether ACP regions could come together not only to forge similar positions on key elements of the EPA negotiating texts, but also to take a common set of commitments in terms of tariff liberalisation. These aspects are very important in terms of regional integration but also in terms of the fiscal impact of EPAs. The choice between national and regional approaches will have different implications for the possibilities African countries have to preserve their revenues, as explained in Section 7.1. Further, negotiating an EPA will also entail the deepening of regional customs unions in preparation of the regional EPAs that are likely to have fiscal consequences on their own (Section 7.2). This being said, it is important to note that as much as it can be considered part of the 'fiscal' problem, the regional dimension of EPAs can and should also be seen as part of its solution, for reasons explained in Section 7.3.

Box 7.1: EPAs and regional integration

The original conception of EPAs pointed strongly to promoting regional integration. Though the precise options for the format of the negotiations were still being discussed at the time, one of the earliest visions for the EPAs was that the EU would negotiate and sign agreements between six regionally coherent groupings, each of which was set on a path of integration well in advance of EPAs being signed. One of the justifications initially given for the relatively long timeframe for the negotiations was that ACP regions should first be given time to make progress on their own regional integration. This would give time for negotiating and implementing regional free trade areas, as well as, in some cases, the framework for moving to deeper customs unions, in preparation for the regional EPAs, as well as for their own merit. It was also envisaged at the start of negotiations that common rules of origin would be negotiated at the all-ACP level. The primary reason to do so would be to allow for cumulation to take place between ACP regions even as they signed EPAs that were different in other respects. The long timeframe for negotiations did not come without a cost. The waiver that was secured from WTO rules for transitional arrangements required the EU to grant significant concessions to non-ACP trading partners, and was therefore detrimental to ACP interests.

For many reasons however, the practical effect of EPAs on regional integration has so far been mixed. One of the biggest hurdles in the African context, which lasted right up until the end of 2007 negotiations, was

[67] Comprehensive EPAs shall notably cover services, investment and trade-related issues.

the problem of 'overlapping membership' of countries within multiple regional groupings, which meant that regional EPAs configuration were never fully fixed until countries made final decisions, late on in the negotiations, on which group to join. In this context, forging common regional positions proved difficult, let alone taking meaningful steps towards economic and trade integration. At the same time, regional cohesiveness suffered with the existence of a viable alternative trade regime for Least Developed Countries (LDCs) in the form of the Everything But Arms (EBA) initiative. Neighbouring non-LDCs where faced at the time with only the alternative of the less attractive Generalised System of Preferences (GSP). Finally, long-standing intra-regional tensions – for example between bigger dominant players and smaller, less powerful states – also played an important role in some regions, highlighting that decisions to forge closer economic ties are seldom a matter of economics alone, but have important political elements as well.

7.1. Fiscal Implications of Regional and National Approaches to ACP Tariff Liberalisation

The ultimate impact of EPAs on the fiscal positions of signatory states and the range of options available to counter their effects will depend on whether liberalisation commitments are taken at the regional level or by individual countries.

Many countries that liberalised on an individual basis did so by arguing on grounds of sovereignty. But, in terms of fiscal impact, the 'national' approach clearly allows each signatory the greatest flexibility in terms of back-loading liberalisation or excluding entirely the goods it considers the most important to its economy, including those considered most revenue-sensitive (see section 4).

That said, the lack of a single regional EPA schedule would clearly go against the EPAs' objective of strengthening ACP/African regional integration processes; it would notably complicate the internal implementation of long-standing agreements to form regional customs unions and with it, the prospect of an even deeper economic integration[68]. The danger is that once one country in the customs union on its own begins lowering tariffs on EU goods, the entire common external tariff of the union is undermined, leaving only two choices – either to realign tariffs again, or to suspend or dissolve the union either partially or fully[69].

Moreover, in terms of the fiscal impact, one key benefit of a regional offer is that it could, to some extent, enable larger trading countries to 'shield' smaller ones (either through conscious effort or simply as a result of particular scheduling choices). The mix of imported goods is likely to differ within the region, hence while the region as a whole might liberalise 80% of its trade with the EU, individual countries may find that their individual incidence of liberalised goods is lower. This in itself may provide important flexibility for smaller

[68] The creation of differing regimes, through each individual country having its own list of exempted sensitive products in its trade with the EU, makes progress on a unified or common external tariff (CET) much more difficult, if not downright impossible (see in this respect Dalleau and Bilal, 2011). By contrast, a common regional liberalisation schedule therefore strengthens integration by harmonising important elements of trade policy – such as protected and sensitive industries – as well as enabling deeper integration in any number of initiatives, such as fostering the establishment of revenue-sharing mechanisms between countries, and by making steps towards simplifying or abolishing border controls easier.

[69] In West Africa, for instance, the deep and long-standing regional integration initiative under the West African Economic and Monetary Union (WAEMU/UEMOA) customs union could come under threat with the possible implementation of the interim EPA signed by Côte d'Ivoire (see Dalleau and Bilal, 2011). It is worth noting, however, that so far, Côte d'Ivoire has unilaterally postponed the implementation of its EPA commitments for many reasons, including the recent political unrest following the 2010 presidential elections. However, the setting up of a deadline in the context of EPA negotiations could lead to changes in the coming months/years.

countries. Initial analysis by the CARIFORUM suggests that indeed some countries in the region may only liberalise just over 60 per cent of imports by value as a result of their regionally coordinated offer. Conversely, some countries in a regional EPA may end up liberalising much more than the regional average (and in some cases these may include smaller countries, depending again on the mix of imports). For example within the March 2010 market access offer by West Africa, the region offered to open up 69.69% of the value of its trade with the EU, within which Liberia would liberalise up to 94.34%, whereas Gambia would liberalise only 32.5%[70]. This differentiated degree of openness might of course have some consequences on the scope of fiscal loss, potentially leading to some differentiated related-revenue loss, respectively estimated to 85,92% and 26,95% in static analyses [71]

In general, however, there are important issues with presenting such regional offers under WTO rules. Late in the negotiations the EC outlined its interpretation on this point, that in order to submit a regional offer, the region would need to have, or at least to have firm plans to establish, a customs union with a common external tariff. Despite numerous declarations to this effect over previous decades (not to mention the added more recent pressure of the EPAs) this was something that not all ACP regions by 2007 had succeeded in putting into practice.

As it turned out, many of the countries that did conclude EPAs in late 2007 (and some that submitted schedules thereafter) did so by taking liberalisation commitments only on an individual basis – i.e. with their own specific schedule of goods to be liberalised in various tranches, or excluded entirely. This was true even where all the other elements of the legal text were common, such as in ESA countries. There were however several exceptions to this trend, such as the fifteen CARIFORUM countries, the East African Community (EAC), and the SADC EPA group, which have to some extent agreed on a common schedule.

The example of the Southern Africa region is particularly interesting, when analyzing the linkages between regional integration and the fiscal implications of EPAs. Apart from Mozambique, which initialled an EPA on the basis of its own individual schedule, four members of the Southern African Customs Union (SACU) – Botswana, Lesotho, Namibia and Swaziland (BLNS) – initialled an EPA under a common liberalisation schedule. But, at the time of the conclusion of this agreement, the regional position of BLNS countries was far from coherent, since the key country within SACU, South Africa, had not agreed to join the EPA configuration[72]. South Africa's trade relations with the EU have relied instead on the separate Trade, Development and Cooperation Agreement (TDCA) signed in 1999 between the two parties. This left the BLNS position in the EPA negotiations in doubt since it raised the question of the future of the SACU customs union, which would be greatly jeopardized without a harmonization between the provisions of the region's different trade regimes.

With the recent decision of South Africa to negotiate a full EPA with the rest of the SADC EPA negotiating group, the relevance of this issue is certainly less acute; but it reveals the importance for the region, including South Africa, to conclude an EPA as one. It reveals the dilemmas facing some ACP countries between regional coherence and fiscal consequences, and the linkages between the two.

Further, one of the most important features within the SACU customs union is a revenue-sharing mechanism that transfers customs and excise revenues from one country to another. This takes place on

[70] ECOWAS-UEMOA, *Rapport final de l'Atelier sur l'Etat d'avancement du processus de négociation de l'accord de partenariat économique entre l'Afrique de l'ouest et l'Union européenne*, Cotonou, 8-10 mars 2010.

[71] *Ibid.*

[72] Recently, however, South Africa has decided to join the SADC EPA group, and is currently therefore negotiating along with Mozambique and the rest of SACU members, a common regional EPA agreement with the European union.

an unequal basis with a strong development component, which means that more revenue is distributed, in relative terms, to the smaller states than to South Africa (see Box 7.2). As already noted in Section 2, one implication is that Lesotho's economy, for example, relies heavily on customs revenues which represent some 58 per cent of government revenues or just over one third of GDP.

Another implication is that if South Africa remains under a separate regime while BLNS proceed to implement the IEPA, the SACU customs union (including presumably also its revenue sharing arrangements) could become untenable. Goods would be able to circumvent the customs union by entering through the entry point of lowest duty as there would no longer be a common external tariff. Rules of origin would introduce new barriers to regional trade, though these would be difficult to effectively implement in practice. This would also have been the case if South Africa continued to make its own tariff cuts on EU goods under the TDCA. The question then would be whether the currently different trading regimes can be reconciled, or whether the SACU customs union will need adjustment, including on the side of its fiscal revenue sharing formula. It almost goes without saying that in Lesotho a drop of one-third of GDP would have severe consequences for the country. Botswana and Swaziland are in similar positions.

Box 7.2: SACU Revenue Pool

In October 2002, the members of SACU (Botswana, Lesotho, Namibia, South Africa, and Swaziland) signed a new agreement that revised the union's revenue sharing arrangements: it established a Common Revenue Pool to increase the member states' fiscal stability. This mechanism pooled all customs, excise, and additional duties collected in the common customs area with a view to sharing them among member states. Each member states' revenue share is calculated for any financial year from each of three following distinct components, net of the budgeted costs of financing the administration of the arrangement:

(a) The customs component, consisting of all customs duties collected: it is distributed on the basis of each country's percentage share of total intra-SACU imports, excluding re-exports. As a result, South Africa, which has a large trade surplus with its SACU partner countries, has a relatively small share in total intra-SACU imports and it receives less than proportional compensation from the customs component compared to its country's relative economic size. Conversely, the four less-developed SACU members receive a share of total customs revenues that exceeds their relative size.

(b) The excise component, consisting of all excise duties actually collected on goods produced in the common customs area (net of the development component): it is allocated on the basis of each country's share in total SACU gross domestic product (GDP).

(c) The development component, funded initially from 15 percent of the total excise component: it is distributed on the basis of the inverse each country's GDP per capita, implying that lower income countries receive a larger than proportional share of the payouts.

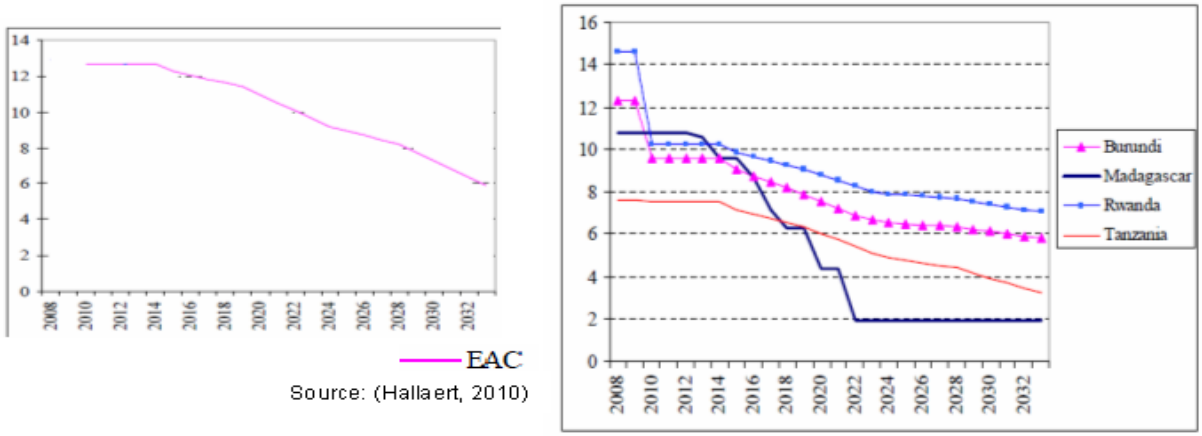
7.2. Reinterpreting the "EPA effect" in a context of regional integration

When analysing the linkages between the regional dimension of EPAs and fiscal consequences, it is important to recall that trade liberalisation in the context of the EPA negotiations has occurred against the backdrop of the tariff reductions made as a result of regional trade liberalisation. As previously mentioned, the EC insisted that in order to submit a regional offer, the ACP/African region concerned would need to have a customs union with a common external tariff. This is important for two reasons. First, because, in the short term, ACP/African countries' government revenue might be under increased fiscal strains, having

to face the loss of revenues from *both* intra-regional and external tariffs. Secondly, to understand the fiscal implications of EPAs on ACP countries, it is important to distinguish the effects of EPAs *per se* from the effect of wider regional integration processes, as previously mentioned. These may have been indirectly triggered or boosted by EPAs, but need to be treated separately, as they might have occurred anyway. This is what Bilal and Stevens (2009) call respectively the "IEPA effect" and the "customs union effect". In many cases, indeed, even if liberalisation is back-loaded or gradual, the country can experience revenue losses due to the adoption of a CET.

Figures 7.1 (a) and (b) show that the revenue losses to be expected in the early years of the implementation of the EPA should not be attributed to the EPA itself, but to the move to a custom union and the adoption of a CET. As can be seen from these figures, in the case of EAC, moving to the CET will have a differentiated impact across countries, with some countries being more affected than others. For Rwanda and Burundi, the liberalisation will be more significant than for Tanzania. Besides, for Rwanda, the 'custom union effect' will be larger than the 'IEPA effect' (Hallaert, 2010). In the same vein, for the countries that are member of the COMESA, studies have shown that the revenue loss under an EPA would depend on whether countries decide to consolidate their regional markets (through a free-trade area or a customs union) prior to an EPA. Table 7.1 shows that if an EPA is sequenced after the COMESA Customs union, revenue loss will be bigger for Madagascar and Malawi, but smaller for Ethiopia and Zambia (Brenton *et al*. 2007).

Figure 7.1a and b: Profile in tariff cuts in some COMESA and EAC countries (simple average tariff on imports from the EU)



Source: (Hallaert, 2010)

Table 7.1: Change in Total Tax Revenue and sequencing EPA/Custom Union

	effect of an EPA alone	EPA effect (after FTA and CU
Ethiopia	-3,4	-2,4
Madagascar	-4,1	-4,9
Malawi	-0,8	-2,2
Zambia	-1,7	-0,8

Source: Brenton *et al* (2007)

Although "customs union effects" should be differentiated from the effects of the IEPA *per se*, these will only add to the strains imposed on government revenues in the short term. Economically, financially, but also politically speaking, this added pressure might not be negligible. Following on our discussion on the

strategies ACP/African countries and their partners can adopt to mitigate the negative consequences of EPA-related liberalisation (see Session 6), some interesting lessons and/or strategies can perhaps therefore be drawn from regional initiatives that have been and/or could be taken to foster consolidation in the area of taxation. There are reasons to believe indeed that those mechanisms put in place at the regional level to cope with tariff losses deriving from regional integration processes might also be relevant in the context of EPA-related fiscal strains.

7.3. Possible Regional Strategies to cope with trade-related fiscal losses

7.3.1. Regional Compensation Mechanisms

The implementation of regional economic integration agendas has often generated significant losses of fiscal revenue for developing countries, and in particular for LDCs. To respond to these fiscal imbalances, it is worth noting that some special provisions to limit adverse impacts on countries and to compensate for revenue losses have been introduced by some Regional Economic Communities (RECs).

These special provisions differ across regions in their design and implementation characteristics, particularly with respect to the mobilization mechanism, payout criteria and the duration of the measures (Annex 7 of the annexed document provides an overview of different initiatives in several regions).

(a) Mobilizing Resources

RECs have used different mechanisms to raise resources to compensate for revenue losses. The resource mobilization schemes[73] can broadly be classified as follows:

(i) Customs duty revenues can be allocated to a compensation or revenue sharing fund, as is the case in the South African Customs Union (SACU) revenue pool, as illustrated in Box 7.2. It is worth noting, however, that with an EPA, the mobilized revenue for the SACU pool might be slightly decreasing with the fall of revenues collected on custom duties.

(ii) Based on existing (or new) domestic and trade taxes, contributions are paid from member states' government budget, essentially derived from tariff revenue. A (non-operational) example is CEMAC, where contribution to the compensation fund is calculated according to the saved tariff expenditures on intra-regional exports.

(iii) Tariffs on imports are increased to raise revenues for use as compensation. For example, CARICOM allows its less developed members to apply for the temporary (re)introduction of intra-regional tariffs in order to overcome tariff revenue shortfalls.

(b) Payment allocations

The way payments are allocated from the compensation funds also differ depending on the REC considered. The criteria used are often either based on the intra-regional trade shares or incurred losses as a result of the implementation of economic integration agenda. In the case of SACU, part of the revenue is redistributed in proportion to the share of member states' total intra-regional imports (box 7.2).

[73] See Walkenhorst (2006).

However, in the case of COMESA, compensation is paid on the basis of incurred fiscal losses as a result of the implementation of commitments and obligations. Box 7.3 illustrates the two facilities set up by COMESA under the COMESA Fund. While the Infrastructure Fund is aimed at providing resources to reduce the infrastructure gap inhibiting the development of the region and therefore to improve the long term competitiveness of the region, the Adjustment Facility is designed to assist member countries in mitigating the losses incurred as a result of the implementation of regional obligations. Rather than being based on theoretical models such as in the case of the CGE in West Africa (see section 6), assessments of revenue loss to be compensated under the programme are made *ex post* on the basis of the revenue authorities' own statistics. Beyond the efficiency of this system, it also allows for greater transparency in distinguishing between the results of the implementation of regional commitments (which are necessary for countries to be eligible for support) and their fiscal consequences.

From the point of view of the internal political dynamics of regional integration, one important goal of the support has been to overcome a natural fear amongst smaller COMESA members that regional integration would lead to negative consequences. As a result the mechanism may also have played a part in spurring on other regional integration initiatives.
In September 2009, Burundi and Rwanda were the first countries to benefit from a disbursement of €10.3 million and €4.4 million respectively, to compensate for revenue losses as a consequence of aligning their customs tariffs to the EAC Common External Tariff.

Box 7.3: The COMESA Fund[74]

In 2000, when COMESA launched the Free Trade Area, it was envisaged that the progress towards achieving the level of integration desired by the region would entail adjustments by the various governments. As a result, COMESA created the COMESA Fund to address the potential costs and benefits of trade liberalisation. The COMESA Fund has two windows, namely:
(i) An Infrastructure Fund, to facilitate development related regional infrastructure projects and therefore reduce the cost of doing business in the COMESA Region. The Fund is expected to be a key instrument for channelling financial resources from development partners and international financial institutions into regional infrastructure projects; and
(ii) An Adjustment Facility to address the loss of public revenue and economic and social adjustment costs, including through improving the efficiency of domestic markets and the business environment; facilitating the reallocation of labour resources and capital; and assisting firms in meeting the cost of compliance to the implementation of COMESA economic integration agenda.

Member states were expected to make initial contributions of US$10 million to the Fund each and development partners and financing institutions contribute on leverage basis.

The case of the COMESA Adjustment Facility is a good example of how the region has been able to mobilize resources from the development partners (essentially the EC, but discussions are currently being held with the World Bank and AfDB to channel resources through the Fund). Funds have been used to redistribute to the most affected countries as a result of the implementation of their regional commitments.
While this programme predates the EPAs and is directed towards fiscal losses that have occurred as a result of liberalisation at the regional level, it could provide an important precedent for the EPAs.
Such a mechanism could be adopted in other regions, in the case of losses due to the implementation of the EPA, where additional EDF resources or Aid for Trade resources could be channelled to help countries mitigate the fiscal impacts of the EPA.

[74] For a discussion on regional funds, see ECDPM (2009).

(c) Duration

Compensation mechanisms are generally temporary in nature. It is expected that long-term gains from deeper regional integration would overcome short terms fiscal losses. Therefore, the mechanisms set in place by most RECs[75], are time-bound. In the case of ECOWAS, the duration of the arrangement is scheduled to expire 4 years after the entry into force of the Agreement, while UEMOA has a 6-year arrangement. COMESA does not have such a timeframe, but compensation is based on country's demand and each must justify the value of revenue loss over a period of time.

7.3.2. REC's support in Domestic Resource Mobilisation

RECs also have a critical role to play in supporting domestic resource mobilisation and fiscal reforms to help its member countries diversify their tax mix and gradually move away from a too-heavy dependence on trade taxes.

By way of illustration, in the context of the EU-ECOWAS EPA, the West African region is currently working towards the consolidation of the UEMOA's Fiscal Transition Programme (FTP) designed to stymie fiscal revenue losses induced by trade liberalisation (Box 7.4).

Box 7.4: UEMOA's Fiscal Transition Programme

Adopted in 2006, the FTP aims at ensuring the financial viability of UEMOA member states' economies in a context characterized by inevitable customs revenue losses due to regional integration and international trade liberalisation (notably in the context of the EPA). It comprises 47 measures aimed at compensating for the loss of fiscal revenues and at effectively mobilizing domestic resources. These measures are reflected in four specific objectives, described in the 2006 Decision adopting the programme[76], namely:
(1) consolidating the common market, which implies inter alia:
- encouraging intra-regional trade liberalisation and eliminating barriers to trade
- creating a simple domestic taxation structure better articulated to border taxation,
- increasing efforts towards the harmonization of both indirect taxation systems and direct tax systems;
- eliminating barriers to the movement of capital and investment
- improving the fiscal and customs environment by promoting "tax civicism".
(2) supporting growth and development finance by promoting a tax structure encouraging internal savings (notably 'small savings') and implementing a Community taxation system to support the Regional Integration Assistance Fund (FAIR).
(3) optimizing the mobilization of tax and custom revenues by increasing the level of domestic tax resources (broadened fiscal base, improved tax collection..), increasing the level of fiscal pressure (ratio VAT/GDP) and by modernizing fiscal and customs administrations.
(4) building capacity and reinforcing the synergies between tax and customs administrations.

Since its adoption, the UEMOA Commission and its member states have worked towards the realization and implementation of these recommendations at both the national and regional level. The concrete results of these efforts can be gauged by the adoption of a handful of Directives and Decisions since 2008; one of them relates for instance to the creation of the institutional FTP monitoring framework[77] in charge (through the National monitoring Committees) of ensuring the smooth implementation of the Programme. Moreover,

[75] though not all, SACU does not have a definite duration
[76] See Decision n° 10/2006/CM/UEMOA, available at: www.uemoa.int/actualite/2006/CM23032006/decision_10_2006_CM_UEMOA.pdf
[77] See Decision n° 35/2009/CM/UEMOA (17 December 2009), available at www.uemoa.int/actualite/2009/CM17122009/Decision_35_2009_CM_UEMOA.pdf

in order to monitor progress in the context of the FTP, a number of indicators and criteria measuring fiscal transition have been adopted, among which a ratio of border tax revenues over total tax revenues inferior or equal to 45%[78]

7.4. Mobilising Financing Resources: Financing Instruments in Regional Economic Communities

The capacity of RECs to effectively implement their regional economic integration programmes, including programmes aimed at addressing trade-related fiscal losses, requires regular, predictable and sustainable financial resources. These are key determinants to achieve the overall development goals of Regional Economic Communities (RECs), and in particular to ensure the effective implementation of regional projects and programmes. In the same vein, should there be any type of compensatory mechanisms aimed at temporarily absorbing the net fiscal impact of an EPA, such as in West Africa (see section 6), the question of the nature of the mechanism through which this aid will be channelled arises. In some instances, regional bodies may need to be involved. In West Africa, for instance, measures aimed at coping with the fiscal impact of an EPA are an inherent part of the EPA Development Programme (EPADP/PAPED) and although the details regarding the operationalisation of this mechanism are still under definition, it is clear that ECOWAS will play a critical coordination role[79]. It is therefore important for the RECs to ensure they have the capacity to finance themselves to initiate and implement regional programmes, including those aimed at addressing the fiscal impact of trade agreements.

Most RECs generally have their own financing instruments to ensure their financial autonomy and to finance their own activities, such as administrative costs, technical support and regional activities and programmes. Annex 7 provides a detailed outline of financial mechanisms per region. In this respect, it is worth noting that, beyond annual budgetary contributions of member states (e.g. SADC) and/or extra-budgetary resources from development partners, one source of revenue include duties and levies collected from imports from third countries.

In West Africa for instance, the ECOWAS has a community levy of 0.5% applied on all imports from non-ECOWAS countries to ensure the financial autonomy of the Community (Article 72 of the Treaty of ECOWAS). It is an internally generated fund that provides for community activities[80]. In the same vein, the UEMOA' Regional Integration Assistance Fund (FAIR), which is the instrument of solidarity meant essentially for the financing UEMOA's own activities and the balanced development of the Community's territory by contributing towards reducing regional disparities, is replenished through the Community Solidarity Levy (PCS) resources, which is a 1% levy on third countries imports and other resources mobilized by the Community from its development partners.

Yet, in the case of RECs that mainly rely on duties and levies collected from imports from third countries (as is the case in UEMOA and ECOWAS) to mobilize resources to finance their regional integration programmes, an 80% liberalisation of their imports from the EU could lead, if those sources of financing are not excluded from liberalisation, to a shortfall, at least in the short term, in the overall level of regional revenue. West Africa is once more a case in point here, since the community levy appeared at some point

78 UEMOA/WAEMU. 2010. La transition fiscale au sein de l'UEMOA – PowerPoint Presentation. March 2010.
79 Dalleau and van Seters (2011).
80 Funds are collected through national treasuries and transferred to the Community's accounts. However, in some cases, the amounts collected are not paid back to the Community's accounts, therefore leading to low resources for the organisation.

in time directly targeted in the context of the EPA negotiations, with the EU wanting to eliminate it as part of the market access requirement. The EU has committed to contribute to temporarily absorb the *net* fiscal impact of an EPA in order to allow governments in the region to maintain critical social spending and ensure budgetary balance (see Section 6).

At the regional level, one possible alternative to overcome the fiscal losses for the region would be to enlarge the fiscal base of the region, from a sole reliance on duties and levies, towards including an excise component (as is the case on SACU, see Box 7.1), or a VAT component (as is the case in the EU (see Annex 7), provided that both excise duties and VAT are effectively collected and harmonized in the region. This would necessitate efficient tax reforms and harmonization within regions. UEMOA's recent tax reform, outlined in Box 7.5, is a good case in point.

Box 7.5: Tax Reforms within UEMOA: Harmonization of Domestic Indirect Taxation Systems

In July 1998, UEMOA adopted a Decision regarding the harmonization of domestic indirect taxation systems, including VAT, excise duties and taxes on oil products. VAT is considered at the regional level as the most appropriate to compensate fiscal revenue losses. Directive N° 02/98/CM/UEMOA regarding the harmonization of VAT within UEMOA, suggested, in addition to a list of products and sectors to be excluded from liberalisation, a harmonized rate comprised between 15% and 20% (article 15) [81], which seems to be applied by most UEMOA countries so far (Porogo, 2009).

Regarding excise duties, beverages (except water) and four other products selected on a list agreed to at the Community level (including for instance, coffee, tea, arms, perfumes and wheat flour) are subject to taxes at levels defined collectively (range)[82].

For oil products, UEMOA suggested progressive implementation of a specific unique tax to take the form of consolidated excise duties, in order to rationalize the taxation systems previously applied by each country and lessen the burden put on consumers' shoulders (Porogo, 2009).

Compared to the harmonization of direct taxation systems, which is still in the early stages, the harmonization of indirect taxation systems seems to have achieved a good momentum.

7.5. Section Summary

Alongside the EPAs, the implementation of separate regional economic integration agendas has often generated losses of fiscal revenue for developing countries, and in particular for LDCs. To respond to these fiscal imbalances, some special provisions to contain adverse impacts on countries and to compensate for revenue losses have been introduced by some RECs. Such mechanisms are important in the context of the present study, not only because they bear some interesting lessons that could help find innovating solutions to compensate for EPA-related fiscal losses (as shown by the example of the COMESA fund), but also because they ultimately work to relieve some of the fiscal strains induced by the removal of duties on intra-regional trade – strains that will be added to the fiscal impact of EPA liberalisation in the short, medium and long term.

[81] See for more information: www.uemoa.int/actes/directive%202_98_cm.htm
[82] See for more information, DIRECTIVE N° 03/ 98/CM/UEMOA available at: www.uemoa.int/actes/directive%203_98_cm.htm

Given the important role the RECs could potentially play in initiating and implementing programmes and/or regionally owned funds aimed at addressing the fiscal impact of trade agreement, it will be important to ensure they have the capacity to finance themselves. The regional aspect of trade liberalisation appears therefore to be a critical issue that cannot be ignored by partners in their support to ACP/African states.

8. Conclusions

This paper has explored the fiscal consequences of the EPA agreements by considering the historical context of trade taxes, theoretical models of EPA revenue loss, the strategies and reform options that are available to ACP countries and the regional dimensions of EPAs. There still remains a great deal of uncertainty over the final outcome of the EPA process, with many countries still engaged in negotiations towards comprehensive EPAs, covering services and trade-related issues, or EPAs that are regional in nature, with regional liberalisation schedules that are fully consistent with their internal integration processes, or some combination of both. The new EPAs enter into force against the backdrop of a severe global economic downturn, which presents an additional challenge for ACP governments as they seek to adjust to the new fiscal reality. A number of recent political statements suggest that EU member states are increasingly concerned by the concrete questions of fiscal impacts of EPAs and the issue of domestic resource mobilisation more generally, and are looking for ways to engage in this area (see Annex 6).

The brief overview provided in Section 2 showed that against the general backdrop of falling reliance on trade taxes across the ACP group/Africa, a number of countries still depend heavily on tariffs as a source of revenue. Here the picture varies across countries and regions. The reform efforts of the 1990s, which saw many countries introduce new taxes such as Value Added Tax, have helped to some extent countries to rely less on trade taxes, while their successful implementation has narrowed the options for expanding the tax base further in the future.

In terms of the models of EPA-related revenue losses, this paper has shown the methodological difficulties of conducting analyses of the potential revenue losses associated with EPAs. Although for various reasons some of the earlier studies in particular overestimated the negative consequences of the agreements on fiscal revenue, more recent studies also suffer from assumptions that are too strict or unrealistic, or of insufficient account taken of the dynamic effects that EPAs might have on ACP economies. Nevertheless such studies do have an important indicative role to play. They show that while in some countries the fiscal impact of an EPA on total tax revenues is likely to be relatively small, in others revenue losses are deemed to be significant.

More specifically, this study has provided a broad overview of the expected fiscal impact of the EPAs by ranking countries according to the estimates found in the literature. This has been further subjected to a robustness check by comparing that ranking with that which emerges from applying a simple rule of thumb. This exercise suggests that the fiscal balance of West and Central African countries is likely to be harder hit by EPA-related trade liberalisation than East and Southern Africa, where the impact of an EPA on total tax revenues is expected to be more limited. Nonetheless, there are some exceptions at country level.

While an overall view is sufficient for the present study, more detailed country-analyses remain important in gauging the specific incidence of the potential impact of an EPA on fiscal revenues. Further analyses might also be carried out to gauge the fragility of the tax systems across countries, with important implications for the ability of governments to respond to fiscal losses. These are critical in order to make sure financial and

technical assistance is provided not only in a timely and sufficient manner, but that it is also directed towards those that most need them.

With regard to the regional dimension of EPAs, much will depend on the outcome of current negotiations, particularly on the question of whether regions are able to forge agreements with common liberalisation schedules, which facilitate their own regional integration efforts. Here, the European Commission has suggested that this is largely an internal matter in different regions, yet it should also be recognised that the outcomes of EPAs (notably when concluding on an individual basis) have the potential to have a negative effect on regional integration which may run counter to their intended goals, with responsibility on all sides to avoid such outcomes. Negotiating an EPA on a regional basis entails the deepening of regional customs unions in preparation of the regional EPAs that are likely to have fiscal consequences on their own. This being said, it is important to note that as much as it can be considered part of the 'fiscal' problem, the regional dimension of EPAs can and should also be seen as part of its solution: examples have been given in this respect of how different regions might be able to adapt to the challenges of revenues lost at the regional level, serving ultimately to strengthen their integration efforts.

In terms of addressing the fiscal losses associated with EPAs, one approach has been to seek guarantees and solutions within the context of the agreements themselves through different forms of compensatory financial assistance. Here, important examples exist of where such assistance - provided both directly and indirectly - has played a role in allowing countries to approach tariff and trade liberalisation with greater confidence that its negative effects will be minimised. At the same time, however, most parties also recognise that if EPAs are to be ultimately successful, they must act as a catalyst for wider reforms in ACP countries, to create or strengthen an enabling environment for growth and development.

Going forward, key challenges will include consolidating recent progress in terms of domestic resource mobilisation, strengthening the capacity to design tax policies which contribute to economic growth and job creation, improving the linkages between taxation and budgetary planning, and revisiting the fiscal contract. In this regard, any fiscal impacts from an EPA can be seen as an opportunity to build on recent fiscal reforms as part of an agenda to improve domestic resource mobilisation in ACP countries. Whether this opportunity is grasped or not is a further empirical question for examination once EPAs begin to be fully implemented.

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