New integration initiatives are flourishing in almost every part of the African continent. The latest initiative in this regard is the Cross-Border Initiative to promote trade, investment, and payments in Eastern and Southern Africa and the Indian Ocean region. In this paper the potential effects of regional integration are empirically discussed and the fiscal implications of the integration measures are addressed, referring to the cases of Burundi, Kenya, Tanzania, and Uganda. Estimates of the revenue loss from the regional integration-oriented tariff reform are provided and the fiscal reforms to offset this negative revenue effect are discussed.

JEL Classification Number:
F15, F36, F47

1/ Mr. Ferdinand Bakoup, a doctoral candidate at the University of Auvergne (Clermont Ferrand), worked on this paper as a summer intern in the African Department in 1994. The paper benefited from the comments of Anupam Basu, Pierre Dhonte, Robert Sharer, Sadikiel Kimaro, Noureddine Krichène, Jeff Davies, George Tsibouris, and Odd Per Brekk. The usual disclaimers apply.
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Let \( b \) represent the share of customs duties collected on intra-regional imports in total customs duties collected, then from (2):

\[
\text{Revenue loss from internal liberalization} = b (1-p) \frac{t a M}{(1-p)taM + t(1-a)M}
\]

The revenue loss from internal liberalization is then a function of both the share of intraregional imports in total imports and the level of tariff preferences in effect.

Using figures on intraregional imports from Table 3, and since import duty rates between COMESA members now stand at nearly 40 percent of the regular import duty rates--thus implying a 60 percent preference, 1/

Table 8 shows the ratio of customs duties collected on intraregional imports as a percent of total customs duties collected (coefficient \( b \) in equation 3). Using figures in Table 7, customs duties collected on intraregional imports are further expressed as a percentage of total revenue (Table 9). This is obtained by multiplying data for respective countries in Table 8 by data in Table 7. The outcome is that duties on intraregional imports do not contribute significantly to total revenue, particularly in Kenya and Tanzania. This fraction of total revenue will automatically be lost by national treasuries as they remove internal tariffs.

\[
\text{b} - \frac{(1-p) a}{(i-p)a + (1-a)}
\]

Table 8. Ratio of Customs Duties Collected on Intraregional Imports, 1993

<table>
<thead>
<tr>
<th>Country</th>
<th>Ratio of Customs Duties Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>4.5</td>
</tr>
<tr>
<td>Kenya</td>
<td>0.9</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2.2</td>
</tr>
<tr>
<td>Uganda</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Source: Calculations from Table 3, using equation (3).

Attempts at regional integration in independent Africa can be traced back to the early 1960s. Recently, efforts at building or strengthening regional integration were renewed, reflecting not only a growing regionalism in the world economy in general, but also a strong commitment by policymakers to reverse the trend of poor growth performance through the design and implementation of regional arrangements and robust adjustment programs. New initiatives are being undertaken in West and central Africa. Similarly, countries in east and southern Africa have recently launched the Cross-Border Initiative (CBI) for promoting trade, investments, and payments in eastern and southern Africa.

The move to economic regional integration, if pursued in a spirit of mutual benefit, stimulates trade by freeing it from restrictions and barriers, promotes growth through economies of scale, improves the institutional environment, strengthens the external discipline that sustains appropriate policies, and allows for timely responses to changing circumstances. The move to integration also entails temporary costs, although these can be minimized and/or absorbed if trade liberalization is supported by adequate macroeconomic, structural, and social policies. One such cost would be the reduction in government revenue from customs duties following regional integration. A sound fiscal policy response, including tax system reforms, could help ensure that short-term pressures on revenue are addressed adequately.

The main objectives of this paper are (1) to assess the gains that Burundi, Kenya, Tanzania, and Uganda could achieve by participating in the current regional integration process; (2) to analyze the fiscal implications of the tariff reform for these countries, within the framework of the CBI, by providing quantitative estimates of government revenue losses that would stem from changes in tariffs—through elimination (for intraregional trade) and reduction (for extraregional trade)—as well as estimates of the additional fiscal efforts needed to maintain the same overall fiscal policy stance despite the move to regional integration; and (3) to suggest possible fiscal policy responses for the short term, such as adjusting sales tax rates, and for the medium term. The latter include improving the management of fiscal exemptions and tax smuggling, adopting a value-added tax (VAT), and increasing indirect taxes under the destination principle to make up for revenue forgone and to comply with the tax harmonization process induced by the regional integration.
I. Introduction

Recognition of the need to promote and encourage economic integration among African economies is strongly entrenched today. The small and fragmented domestic markets of the individual African countries are in many ways a major structural obstacle in the path toward development. First, they often cannot sustain efficient scale in many lines of production. Also, resource allocation is more likely to be suboptimal in fragmented economies than in large economies where economic agents can respond to market price signals. Furthermore, the outlook for low-cost production and profits is significantly more favorable in large markets, thus offering a strong incentive to invest and expand output. The confluence of all these considerations makes economic integration a high priority on the list of policies to foster African development. In addition, economic integration 1/ may have the advantage over unilateral liberalization in providing access to partners' markets (Wonnacott and Wonnacott, 1991).

In Africa, notwithstanding the modest results achieved so far, attempts at economic integration can be traced back to the early 1960s with the creation of the Economic and Customs Union of Central Africa (ECUCA) 2/ in 1964, and the East African Community (EAC) 3/ in 1967. Although most of the early attempts at economic integration were not successful for a variety of reasons, there is now a renewed interest in regional integration by African countries.

Three basic factors underlie the renewed interest in economic regionalism in Africa. First, there is a growing support for the long-term objective of global free trade, as evidenced by the trend toward regional

1/ Traditionally, the process of economic integration starts with the granting of preferential access in the home market to goods and services originating from a partner country in the integration scheme. Preferential access becomes free access if the member countries proceed to form a free trade area. In this case, the participating countries create a large regional market where goods and services can move freely. The next phase is a customs union, which is a free trade area with a Common External Tariff (CET) applying to a member's imports from outside countries. A common market emerges when free movement applies to factors of production. As free movements of goods, services, and factors of production cannot be sustained in the long run without global policy coordination, the move from a common market to an economic union is thus the next step. In an economic union, countries begin to coordinate their economic policies (fiscal, monetary, exchange rate, investment, and the like). A political union is the ultimate stage, where countries give up their national sovereignty, wholly or in part, to supranational institutions. The European Union is an example of an economic integration arrangement moving toward this stage.

2/ The ECUCA comprised Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, and Gabon.

3/ The EAC was formed by Kenya, Tanzania, and Uganda.
trade arrangements. Second, there is the relatively poor growth performance of Africa, the sole continent where standards of living declined over the past decade (Table 1).

Table 1. Real Per Capita GDP, 1976-93

<table>
<thead>
<tr>
<th></th>
<th>Average 1976-85</th>
<th>1992</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing countries</td>
<td>2.0</td>
<td>3.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Africa</td>
<td>-0.4</td>
<td>-2.3</td>
<td>-1.6</td>
</tr>
<tr>
<td>Asia</td>
<td>4.4</td>
<td>6.5</td>
<td>6.8</td>
</tr>
<tr>
<td>Middle East and Europe</td>
<td>-0.2</td>
<td>-0.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Western Hemisphere</td>
<td>0.9</td>
<td>0.3</td>
<td>1.5</td>
</tr>
</tbody>
</table>


In this situation, new thinking for sustainable growth is required, and regional integration is part of this process. Third, economic theory clearly underlines the economic advantages that can be derived from a properly designed and effectively implemented integration policy. For policymakers in Africa, it is thus an appropriate time to craft new regional arrangements that could benefit from past lessons.

1/ Europe is today a full-fledged integrated economic area and new initiatives are still being considered in order to further deepen the process of integration (for example, the recent Maastricht Treaty transforming the European Community into the European Union, and introducing a plan to have the currency of its members replaced by a single currency, the ECU, by 1997). Plans are under way to bring the northern European countries into the Union and to strengthen cooperation with the emerging market-based economies of Eastern and Central Europe. The United States, since World War II, the major proponent of a multilateral-based world economic, financial, and trading system, has recently taken decisive steps toward regionalism, such as the U.S.-Israel Free Trade Area and the recent North American Free Trade Agreement (NAFTA). The latter, signed in 1992, was preceded by the U.S.-Canada Free Trade Agreement signed in 1988. The United States is also closely engaged in the Asia-Pacific Economic Cooperation Forum (APEC). In Asia, the Association of South-East Asian Nations (ASEAN; founded in 1967 and including Brunei, Indonesia, Malaysia, the Philippines, Thailand, and Singapore) has recently moved toward a Free Trade Area (FTA), and is also considering more regionalism; furthermore, the pragmatic regionalism of Japan is being given new impetus.
In this context, new initiatives are underway to strengthen economic integration in different parts of the continent, notably in West and Central Africa. 1/ Countries in Eastern and Southern Africa have recently decided to deepen and to give new impetus to their search for economic integration. Accordingly, a ministerial meeting held on August 27, 1993 in Kampala--with representatives from Burundi, the Comoros, Kenya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Tanzania, Uganda, Zambia, and Zimbabwe--agreed to put in place the CBI. This initiative, which is supported by the International Monetary Fund, the World Bank, the African Development Bank, and the European Union Commission, is intended to speed and strengthen economic integration in the region in the framework of the structural adjustment policies of each country.

The purpose of this paper is twofold: first, to assess the potential gains from ongoing regional integration efforts made by Burundi, Kenya, Tanzania, and Uganda; and second, to analyze the fiscal implications for these countries of a regional integration-oriented trade liberalization program and to recommend appropriate policy actions. The rest of the paper is organized as follows. In addition to featuring a broad theoretical framework for analyzing integration effects, Section II includes an empirical evaluation of the likely effects of ongoing integration efforts within the framework of the CBI for the countries under review. Because budgetary revenues are a major consideration of economic policy in African countries, given the level of their current balance and overall fiscal deficits (Table 2), Section III addresses the fiscal implications of the elimination and reduction of tariffs on intraregional and extraregional trade, respectively. It also suggests short- and medium-term policy responses, including reforms of the indirect tax systems, a move to a general adoption of a VAT, and improved management of fiscal exemptions and tax smuggling. Section IV presents some concluding remarks.

1/ As of January 12, 1994, in the wake of the devaluation of the CFA franc, authorities in Western and Central Africa decided to step up their efforts into establishing common markets. In this regard, the Union Monétaire Ouest-Africaine (UMOA) is being progressively transformed into the Union Economique et Monétaire Ouest-Africaine (UEMOA), and the Communauté Economique des Etats d'Afrique Centrale (CEEAC) is also being transformed gradually into the Communauté Economique et Monétaire d'Afrique Centrale (CEMAC).
Table 2. Current and Overall Fiscal Balances, Excluding Grants, 1992/93
(In percent of GDP)

<table>
<thead>
<tr>
<th>Countries</th>
<th>Current Balance</th>
<th>Overall Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>0.2</td>
<td>-13.4</td>
</tr>
<tr>
<td>Kenya</td>
<td>-1.0</td>
<td>-10.4</td>
</tr>
<tr>
<td>Tanzania</td>
<td>-7.9</td>
<td>-14.0</td>
</tr>
<tr>
<td>Uganda</td>
<td>-1.2</td>
<td>-12.0</td>
</tr>
</tbody>
</table>

Sources: Data provided by the authorities, and IMF staff estimates.

II. Regional Integration Within the CBI: Theoretical Framework and Empirical Evaluation

1. Theoretical framework

Since the pioneering work of Viner (1950), trade theorists agree that the formation of regional integration arrangements is likely to generate two effects: trade creation as the participating countries remove tariffs and other barriers and enhance intraregional trade, and trade diversion as protection against nonparticipating countries increases. With trade creation, high-cost local production is replaced by cheaper imports from lower-cost regional partners. With trade diversion, more expensive imports from a partner in the integration arrangement will substitute for cheaper imports from an outside country. Trade creation has positive welfare effects, as it channels resources to those sectors in which the country has a comparative advantage, permitting it to develop its production of those goods it can produce more cheaply. Trade diversion reduces economic efficiency, although the overall welfare effects are ambiguous. The total welfare impact of either trade diversion or trade creation is a function of both the amount of trade diverted or created and the cost or gain per unit of trade diverted or created. The closer the cost structures of the integration partners are to those of the most efficient outside producers, the higher the likelihood that welfare gains from trade creation may partly offset the welfare-reducing effects of reduced efficiency.
will be large. These two effects are likely to occur upon formation of an integration arrangement. Trade creation is likely to dominate in the following circumstances: the countries forming the integration arrangement had high trade barriers before the integration union is formed; protection against outside countries is lowered after the union is formed; the union members have complementary economic structures and their cost structures are close to world cost levels; the union members are already major trading partners; and the outside countries maintain high protective trade barriers before and after the union is formed.

In addition to enhancing investment and growth, economic integration arrangements generate other effects such as changes in the terms of trade, economies of scale, and institutional modifications. In the case where regional trading arrangements are trade diverting, the effects could be a slowdown in growth performance. While minimal in the aggregate, the effects on individual countries are uneven; some could face disproportionate trade diversion, translating into significant economic dislocation. This could happen for a small country if its base is relatively concentrated and directed mainly toward the market of a country entering a regional arrangement. Trade theory also shows that there could be changes in the trade pattern of the liberalizing countries—whereby each country will export those goods in which it has a comparative advantage (the Heckscher-Ohlin model)—as well as changes in the factorial distribution of income (the Stolper-Samuelson theorem), and in income differentials between trading partners (the factor price equalization theorem).

2. Empirical evaluation

This section provides an empirical evaluation of possible effects that may result from stepped-up integration measures in Eastern and Southern Africa, as envisaged within the framework of the CBI. A sample of four contiguous countries, namely Burundi, Kenya, Tanzania, and Uganda, is considered as a case study. The findings indicate promising prospects for gains, including increased trade, higher investment rates, and accelerated growth in the sub-region.

The paper shows that a significant part of these benefits will come through the enlargement of the market available to regional firms and the subsequent increase in trade flows. Key to these benefits are improvements to regional infrastructures (transport and telecommunications) and other measures to enhance market integration. The analysis therefore emphasizes

1/ If regional institutions take over from national governments the responsibility of policy making in some important areas, economic outcomes in union members may improve as the policy making process is now insulated from the efficiency-reducing influences of some domestic political factions. For more detail, see De Melo, et al., 1993
2/ See Samuelson and Stolper (1948).
3/ See Samuelson (1948) and (1949).
the need for the countries under review to work toward implementing structural reforms in this area—including liberalization of the financial, exchange, and trade systems, and privatization and divestiture of public enterprises—in order to improve the provision of services. Integration would then benefit these countries, as tariffs on internal trade are removed and external tariffs harmonized at a lower common external tariff (GET). 1/ However, such liberalization measures are likely to have some important fiscal implications, which may require supporting fiscal measures.

a. Internal trade barriers

Despite past efforts to liberalize their trade regimes, the Common Market for Eastern and Southern Africa (COMESA) countries still have relatively high trade barriers. Burundi, for example, has a maximum rate of import duty of 100 percent, Kenya 45 percent, Tanzania 40 percent, and Uganda 30 percent. Although intra-COMESA import duty rates now stand at nearly 40 percent of the regular import duty rates, there is considerable room for gaining efficiency from a liberalization of internal trade and a move toward a CET. The use of nontariff barriers is also widespread in the region as a whole. Import licensing, quantitative restrictions, and import bans are still employed to control imports in order to preserve foreign exchange or provide protection to some domestic producers. Removing these restrictions would produce positive welfare effects for the region as a whole.

b. Intraregional trade and the expected trade pattern

While the share of export trade within the COMESA to total exports is low (5.9 percent), significant trading links already exist nonetheless between some countries and their regional partners. For example, in 1993, 10.5 percent of Burundi’s trade was with the region and 18 percent of Kenya’s exports went to the region. Uganda also bought nearly 19 percent of its imports from within the region, mainly from Kenya (Table 3).

1/ To reduce trade diversion effects, the liberalization of internal trade would be combined with a significant reduction of external tariffs, vis-à-vis third countries, to the level of the member with the lowest tariffs.

2/ In November 1993, the Common Market for Eastern and Southern Africa was established, superseding the Preferential Trade Agreement (PTA) for Eastern and Southern African States. Participants include Angola, Burundi, the Comoros, Djibouti, Ethiopia, Eritrea, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe.

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Table 3. Regional Trade Indicators, 1993.

<table>
<thead>
<tr>
<th></th>
<th>Imports from Eastern and Southern Africa</th>
<th>Exports to Eastern and Southern Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(In percent of total imports)</td>
<td>(In percent of total exports)</td>
</tr>
<tr>
<td>Burundi</td>
<td>10.5</td>
<td>10.4</td>
</tr>
<tr>
<td>Kenya</td>
<td>2.3</td>
<td>18.0</td>
</tr>
<tr>
<td>Tanzania</td>
<td>5.3</td>
<td>10.8</td>
</tr>
<tr>
<td>Uganda</td>
<td>18.9</td>
<td>3.0</td>
</tr>
</tbody>
</table>


These data are evidence that regional integration could play a key role in reinforcing and expanding trade flows in Eastern and Southern Africa, including countries considered here.

In light of the major contribution of the agricultural sector to GDP and the existence of cheap and abundant labor, agricultural products and labor-intensive industries would primarily benefit from the integration-stimulated trade. In the agricultural sector, the CBI will mainly stimulate trade flows in nontradeable crops and livestock given the relatively low share of cash crops in the GDP. In view of the labor-intensive production of agricultural goods in these countries, agricultural exports would have a greater competitive edge and find outlets in the partner countries. Because they may not require the same promotion and marketing costs as exports of manufactured products, it would be easier to realize an expansion in agricultural exports. Thus, as in the case of the European Union (EU) and other regional groupings, trade liberalization could easily result in a greater volume of agricultural exports in each country. Likewise, the agricultural sectors in the countries under review should expand and sustain growth under the CBI as each country specializes in the production of items for which it has a comparative advantage (a lower pre-CBI domestic relative price).

With its relatively developed industrial sector by the region's standards, Kenya would develop production and exports of more capital-intensive goods. In the manufacturing sector, the CBI would create new trade opportunities and would encourage the existing plants to expand their markets outside their own borders. However, in the countries under consideration, the short-term response of the manufacturing sector to the CBI would be limited by its size, its primarily import-substitution nature, as well as its limited marketing experience. Since most of the existing plants were initially designed to cater to the domestic market and still enjoy substantial protection, the success of their exports strategy would depend on their ability to restructure, allocate resources for marketing,
and substantially reduce their costs. A long-term response could be supported by actions in these areas, including improvements in the economic infrastructure (particularly transport and telecommunications) and in the general provision of services. Existing plants would face competition from foreign producers in the partner countries, and would need to have a competitive edge in order to make inroads into the new regional market. New investment encouraged by the CBI incentives could be undertaken, and new export-oriented enterprises would likely emerge.

The trade flows in this sector would be patterned according to the law of comparative advantage and the domestic relative prices before the CBI. In the context of a sound macroeconomic framework, the removal of tariffs and other barriers to trade would lower domestic prices and lead manufacturing enterprises to shift production toward those goods that could be produced more cheaply and exported to regional partners. Overall, the CBI would boost the level of trade among the participating countries, reflecting mainly their rather similar economic structures. However, the uncompetitive cost structures of these countries resulting from previous import-substitution strategies is likely to entail a large cost in terms of economic efficiency as a result of trade diversion, unless external barriers are simultaneously reduced. This condition would be met, because the introduction of the CET is scheduled to be at a lower level of external protection, thus reducing the welfare impact of any trade diversion that may occur (Table 4).

| Table 4. Existing and CBI-proposed Tariff Structures of the Sample Countries, 1993 |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                 | Burundi         | Kenya           | Tanzania        | Uganda          |
| Intermediate goods              |                 |                 |                 |                 |
|                                 | (In percent)    |                 |                 |                 |
|                            | Burundi         | Kenya           | Tanzania        | Uganda          |
| Intermediate goods              | 12              | 15              | 20              | 10              |
| Capital goods                   | 10              | 15              | 30              | 10              |
| Consumer goods                  | 43              | 45 1/           | 40              | 30              |
|                                 |                 |                 |                 |                 |

Sources: Data provided by the authorities.

1/ As of June 1994.

c. Terms of trade effects

The present lower tariffs for consumer goods in Tanzania and Uganda would help these two countries reap terms of trade gains vis-à-vis their regional trading partners as internal trade is liberalized. Internal liberalization would induce a larger shift in their partners' reciprocal

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demand, thus leading to a favorable terms of trade movement for Tanzania and Uganda. Implementation of the CBI measures would not affect the terms of trade of any participating country with nonmember countries, as the member countries together are small relative to the world market. Nevertheless, their joint bargaining power vis-à-vis third countries could be improved as collective and coordinated demands carry more weight than individual demands. 1/

d. **Regional market**

As indicated by Table 5, the four countries considered are low income countries, with per capita GDP in 1993 ranging from about US$100.0 in Tanzania to US$224.5 in Kenya. The economic size of these countries varies considerably. In terms of economic activity in 1993, measured by the level of GDP, Kenya was the most important with a GDP of US$6,308 million, which was more than six times that of Burundi, more than twice that of Tanzania, and almost twice that of Uganda. The entire bloc of COMESA countries represented a total population of nearly 215 million persons, and a total GDP of approximately US$53.5 billion. In comparison with the pre-integration situation where each country relied first on its own domestic market, the regional market would offer each individual country in the region a significant advantage in terms of market access in which full economies of scale could be realized.

<table>
<thead>
<tr>
<th></th>
<th>Population 1/</th>
<th>GDP 2/</th>
<th>GDP Per Capita 3/</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>5.8</td>
<td>1,017.0</td>
<td>175.3</td>
</tr>
<tr>
<td>Kenya</td>
<td>28.1</td>
<td>6,308.0</td>
<td>224.5</td>
</tr>
<tr>
<td>Tanzania</td>
<td>25.9</td>
<td>2,596.0</td>
<td>100.2</td>
</tr>
<tr>
<td>Uganda</td>
<td>18.1</td>
<td>3,266.0</td>
<td>180.4</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>77.9</strong></td>
<td><strong>13,187.0</strong></td>
<td><strong>--</strong></td>
</tr>
<tr>
<td><strong>COMESA 3/</strong></td>
<td><strong>214.7</strong></td>
<td><strong>53,521.0</strong></td>
<td><strong>--</strong></td>
</tr>
</tbody>
</table>


1/ In millions.
2/ In millions of U.S. dollars.
3/ In U.S. dollars.

1/ Overall, the CBI should be perceived as an organization fostering steps toward multilateral trade liberalization and global free trade rather than as a stumbling block to multilateral liberalization.
Regional integration can increase both the rate and the productivity of investment. First, the emergence of large markets would improve prospects for profits and ultimately could attract higher levels of domestic and foreign direct investment in member countries. The prices of intermediate and capital goods could also fall, as integration measures would be introduced, further providing additional incentives to invest and/or to increase the rate of utilization of existing capacities. The investment environment would be further improved by the removal of payment restrictions and simplification of administrative procedures. Since the decision-making process affecting important policy instruments (trade liberalization, payments, and investment policies) would shift to the regional level, the CBI would contribute to reducing perceived uncertainty, thus boosting the investment rate, while providing institutional gains to participating countries. Second, these institutional effects can be instrumental in increasing the overall quality of policy in the union and in enhancing the quality and the productivity of investment. The investment effects of regional integration could be reinforced by further efforts to harmonize the fiscal, monetary, and exchange rate policies of the participating countries. The CBI would also stimulate growth in the participating countries, as liberalization measures would contribute to a more efficient intersectoral reallocation of productive resources. In each country, producers would seek to invest in those sectors in which they can secure a competitive edge. Another positive effect on growth would come from the reduction of costs. The dismantling of present trade barriers would lower producers' costs and free resources that would be subsequently used more efficiently in other activities. When combined with the implementation of a CET that is lower than the pre-integration external tariffs, this would reduce the anti-export bias and give a more outward-oriented stance to economic policy in each of the participating countries. As a result, increasing investment flows could be expected, thus stimulating economic growth. There is clear evidence from cross-sectional studies that suggests a positive relationship between outward-orientation and economic growth (Feder 1983; Belassa 1985; World Bank 1987; Guillaumont 1994). As indicated above, the agricultural sector, which is potentially the main beneficiary of the CBI, will lead growth.

The CBI is expected to influence the behavior of factor prices. Trade effects would be felt by the agricultural sector, which is the most important sector in the participating countries. Opportunities to trade in agricultural products would be enhanced, since trade between partner countries would be conducted on the basis of international market prices that are higher than domestic ones. A rise in the real income in the exporting segments of the agricultural sector in each of the participating countries could be expected. As mentioned before, import-substitution strategies have provided high rates of effective protection to the manufacturing sector in the region as a whole. In the face of increased
competition, the inefficient firms would thus be driven out of the market. To survive competition, the only viable option would be to introduce significant adjustment measures to reduce costs and enhance competitiveness. Exporting firms that are competitive relative to other regional producers would stand to expand their exports, and a rise in the real income of the factors they use intensively would be anticipated. The rise in real income would certainly be more pronounced for the unskilled workers, considering the fact that most of the region's industries are still very light and produce goods that do not require very skilled labor. In Kenya the manufacturing sector is already using skilled workers to produce some capital-intensive goods. These workers would certainly see their real wages rise if Kenya develops its exports of such goods. Overall, according to the factor price equalization theorem, 1/ the long-run result would be the elimination of differences in income levels among the countries in the region.

g. Transitional adjustment costs

Other important issues pertain to the transitional adjustment costs and the reform of the incentive system. With internal liberalization, the industrial sector in Burundi, Tanzania, and Uganda would each face increased competition from the more developed Kenyan industrial sector. After the CET is introduced, import-competing industries in all the participating countries would face more competition from foreign firms. The move to a CET would entail transitional adjustment costs, which is a concern of any authorities considering whether to embark on a liberalization program. The main argument is that some domestic industries may not survive the increased competitive pressure. Accordingly, the liberalization program should be implemented together with a reform of the overall industrial incentive system in order to provide adjustment assistance to some import-competing domestic producers. However, this rationale is not sustainable on several grounds. First, the adjustment process that drives inefficient firms out of the market is the way to achieve efficiency gains. Second, the tariff reform would eliminate the antiexport bias of the preintegration incentive system, and thus reduce the need for its reform. In addition, preannouncing the tariff reform would provide time to domestic firms to adapt and undertake adjustment measures. Third, it is difficult to identify, without encouraging rent-seeking activities, industries that in return for transitional short-term assistance, would be viable in the long term. The problem is exacerbated by the weak institutional capacity required to manage such adjustment assistance on a transparent basis. In the few cases where adjustment assistance would be warranted, this should be carried out selectively (based on detailed studies at the firm level), within a strictly defined time period, and made available through budgetary channels (preferably in the form of a direct subsidy) such that its

1/ For an empirical investigation of the link between integration and income convergence, see Ben-David, 1993.
authorization (and justification) could be renewed regularly at the
beginning of each fiscal year. Also, donors should be closely associated in
identifying the recipient industries, and in designing and monitoring the
adjustment package.

III. Fiscal Implications of Regional Integration

The liberalization process described in Section II is likely to put
pressures on fiscal revenue, thus calling for appropriate fiscal policy
responses, as discussed below. There is currently a growing literature on
fiscal problems of developing countries in the context of trade
liberalization programs. These fiscal problems arise when revenue
losses are incurred as a result of regional integration-induced tariff
reductions. Therefore, such losses must be offset so as not to
exacerbate already existing fiscal difficulties. This section first
attempts to provide quantitative estimates of the impact on government
revenue of the CBI tariff liberalization measures and then considers the
needed appropriate fiscal reforms.

1. Estimating revenue implications of regional integration:
   Theoretical and methodological issues

a. Theoretical issues

Long-term effects of regional integration on government revenue and on
the overall fiscal situation are likely to be positive in participating
countries, as a combined result of the favorable impact on growth as well as
the adoption of well-designed offsetting measures. The latter are intended
to eliminate the negative short-term impact stemming from the elimination of
internal tariffs and the reduction of external ones.

The elimination of tariffs on intraregional trade will cause per se a
loss in international trade-related fiscal revenue. With respect to
extraregional trade, it is more difficult to estimate the revenue impact of
the move toward a CET matching the lowest tariff in effect. To quantify the

1/ See, for example, Papageorgiou, et. al. (1991); Blejer and Cheasty
(1990); and Bevan (1994).

2/ Exchange rate movements, which have an impact on government finance,
usually follow the establishment of regional integration arrangements. The
magnitude of these movements will depend on how the established union
affects the balance of trade, the level of foreign direct investment, and
the capital flows. Exchange rate movements modify the national currency
value of imports and, accordingly, the customs receipts. More important,
their effects on government finance will depend on how the Government
consumes tradeable goods and earns its revenue in foreign currency. While
of great interest and certainly worth analyzing in detail, these issues are
not within the scope of this paper.
impact on revenue, the "Laffer Curve" analysis may well be relevant since a tariff could be considered as a tax. Reducing tariff levels could actually boost revenue if the official tariff rate subject to the adjustment is on the downward sloping portion of the curve. Research on Kenya pointed to a positive, nonlinear relation between official rates and effective rates of collection (estimated as the ratio of customs duties collected to the value of imports) with a different slope above and below a given level of the tariff (Pritchett and Sethi, 1993). Above that given level, the slope declines, suggesting that the collection performance at higher rates of customs duties is less than at lower rates. Another interesting result of that research is that the slope of the estimated relationship between effective rates of collection and official rates is less than 1. This clearly indicates that the collection of customs duties does not rise or fall proportionately with tariff increases or reductions. In fact, evidence supports this result by showing that the change in the level of the official tariff is just one of several determinants of government revenue growth. Others include procedures for granting and managing exemptions; effective levels of collection; and solid safeguards against misdeclarations, under-declarations, and smuggling. If changes in these areas are introduced along with a tariff elimination on intra-regional trade and a move toward the CET, the result could even be an increase in government revenue. However, these changes can produce their full effects only in the long run. In a short- to medium-term horizon, it would be reasonable to consider that only the tariff changes will be fully implemented, with other aspects of the tax system remaining broadly unchanged. However, one could also expect that reducing tariffs would lower incentives to smuggling and non-compliance, and bring more trade into legal channels, thus generating more taxes and improving fiscal revenue. Overall, the introduction of a CET will cause revenue losses, but in a proportion that is less than unitary.

b. Methodological issues

Regional integration has economy-wide effects through relative price changes and exchange rate adjustments. The economy will move to a new general equilibrium, and the subsequent change in the level of government revenue is in itself a measure of the effect of integration. This measure could be estimated by using either an applied general equilibrium approach or a partial equilibrium approach. The first approach allows the economy-wide effects on government revenue to be captured, and a full model of the economy needs to be specified and applied. However, data requirements make

1/ According to the Laffer Curve, there is a concave relation between the tax yield and the tax rate: that is, tax revenue first increases, reaches a maximum, and then decreases. Above that maximum yield point, reducing the tax rate increases the tax yield instead of lowering it.

2/ The model \( \text{collected rate} = a + b(\text{Official rate}) + c(\text{Official rate} - t^*) + e_i \), with \( t^* \) representing the point above which the slope falls, showed that for Kenya, \( t^* \) was 60 percent with a slope of 0.58 below and 0.25 above.
it difficult to extend the approach to each country. Therefore, the alternative is to consider the second approach. While excluding sectoral interactions, it nonetheless focuses on the effects of tariff changes on each particular sector or product category. The partial equilibrium approach, though less comprehensive, is still useful in analyzing the short-term effects, which often are the main concern of governments.

This paper develops a partial equilibrium approach to estimate the impact of the elimination of customs duties on intraregional trade as well as the impact of the move toward the CET on government revenues. The net impact will be obtained by summing the revenue loss incurred while bringing intraregional tariffs down to zero and the loss incurred while moving toward the CET.

c. **Estimates of the revenue impact of regional integration**

Indirect taxes are an important source of government revenue in the countries under review (Table 6). Customs duties are among the major contributors to total revenue, ranging from 10.2 percent of total revenue in Kenya to 44.1 percent in Uganda (Table 7).

<table>
<thead>
<tr>
<th>Table 6. Structure of Central Government Revenue, 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Burundi</td>
</tr>
<tr>
<td>Kenya 1/</td>
</tr>
<tr>
<td>Tanzania 1/</td>
</tr>
<tr>
<td>Uganda 1/</td>
</tr>
</tbody>
</table>

Sources: Data provided by the authorities; and IMF staff estimates.

1/ Covering FY 1992/93 (July-June).
Table 7. Importance of Selected Indirect Taxes, 1993

<table>
<thead>
<tr>
<th></th>
<th>Sales tax</th>
<th>Excise tax</th>
<th>Customs duties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(As a percentage of total revenue)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burundi</td>
<td>17.2</td>
<td>21.5</td>
<td>19.3</td>
</tr>
<tr>
<td>Kenya 1/</td>
<td>31.8 2/</td>
<td>11.2</td>
<td>10.2</td>
</tr>
<tr>
<td>Tanzania 1/</td>
<td>19.2</td>
<td>10.9</td>
<td>19.3</td>
</tr>
<tr>
<td>Uganda 1/</td>
<td>36.2</td>
<td>6.7</td>
<td>44.1</td>
</tr>
</tbody>
</table>

Sources: Data provided by the authorities; and IMF staff estimates.

1/ Covering FY 1992/93 (July-June).
2/ Value-added tax.

(1) Revenue loss from internal liberalization

The revenue lost by each country as a result of internal liberalization is in fact the share of customs duties from intraregional imports with respect to the total amount of customs duties collected. Assuming the same performance in collecting duties on intra-regional imports and on imports from outside the region, this share can be estimated as follows:

Let DC, DCr, DCnr be the total duties collected, duties collected on intraregional imports, and duties collected on imports from nonmember countries, respectively; then

\[ DC = DCr + DCnr \]  
(1)

\[ DC = (1-p) \times t \times a \times M + t \times (1-a) \times M, \]  
(2)

With \( p \) - level of the tariff preference enjoyed by intraregional imports over imports from outside the region;

\( t \) - effective rate of collection (ratio of customs duties collected to value of imports);

\( a \) - share of intra-regional imports in total imports; and

\( M \) - total imports.

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Let $b$ represent the share of customs duties collected on intra-regional imports in total customs duties collected, then from (2):

$$b = \frac{(1-p) \cdot t \cdot a \cdot M}{[(1-p) \cdot t \cdot a \cdot M + t \cdot (1-a) \cdot M]}$$

$$= \frac{(1-p) \cdot a}{[(1-p) \cdot a + (1-a)]}$$

(3)

The revenue loss from internal liberalization is then a function of both the share of intraregional imports in total imports and the level of tariff preferences in effect.

Using figures on intraregional imports from Table 3, and since import duty rates between COMESA members now stand at nearly 40 percent of the regular import duty rates—thus implying a 60 percent preference, 1/ Table 8 shows the ratio of customs duties collected on intraregional imports as a percent of total customs duties collected (coefficient $b$ in equation 3). Using figures in Table 7, customs duties collected on intraregional imports are further expressed as a percentage of total revenue (Table 9). This is obtained by multiplying data for respective countries in Table 8 by data in Table 7. The outcome is that duties on intraregional imports do not contribute significantly to total revenue, particularly in Kenya and Tanzania. This fraction of total revenue will automatically be lost by national treasuries as they remove internal tariffs.

<table>
<thead>
<tr>
<th>Intraregional Imports, 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of total customs duties collected</td>
</tr>
<tr>
<td>Burundi</td>
</tr>
<tr>
<td>Kenya</td>
</tr>
<tr>
<td>Tanzania</td>
</tr>
<tr>
<td>Uganda</td>
</tr>
</tbody>
</table>

Source: Calculations from Table 3, using equation (3).

Table 9. Estimated Shares of Total Revenue from Customs Duties on Intraregional Imports, 1993

<table>
<thead>
<tr>
<th></th>
<th>In percent of total revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>0.9</td>
</tr>
<tr>
<td>Kenya</td>
<td>0.1</td>
</tr>
<tr>
<td>Tanzania</td>
<td>0.4</td>
</tr>
<tr>
<td>Uganda</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Sources: Calculations from Tables 7 and 8.

(2) **Revenue impact of the introduction of the CET**

Let \( M_i \) = value of imports of products in the pre-CET situation in local currency;

\[ Q_i = \text{quantity of product } i \text{ imported in the pre-CET situation}; \]

\[ P_i = \text{price of product } i \text{ in foreign currency}; \]

\[ t_i = \text{external tariff on product } i \text{ in the pre-CET situation}; \]

\( \text{CET}_i = \text{Common External Tariff on product } i \text{ in the after-CET situation}; \)

\[ e_i = \text{price elasticity of imports}; \]

\[ \text{PD}_i = \text{domestic price of product } i; \]

\[ E = \text{local currency value of a unit of foreign currency}; \]

and

\[ d = \text{rate of change of } E \text{ following integration. In the case of a devaluation, then } d > 0; \]

\[ M = \text{total value of imports in the pre-CET situation}; \]

\[ R = \text{hypothetical revenue in the pre-CET situation}; \]

\[ p_i = \text{rate of change in the domestic price of product } i \text{ associated with } d_i. \text{ We expect } 0 \leq p_i \leq d. \]
Let a variable with a prime indicate the same variable after introduction of the CET. Then we have:

\[ M_i = Q_i \times P_i \times E, \]  
(1)

\[ Pd_i' / Pd_i = (1 + p_i)(1 + CET_i) / (1 + t_i), \]  
(2)

\[ e_i = [(Q_i' - Q_i) / Q_i] / [(Pd_i' - Pd_i) / Pd_i]. \]  
(3)

From (2) and (3), we have:

\[ Q_i' = Q_i[1+e_i((1+p_i)(1+CET_i)/(1+t_i)-1)], \]  
(4)

\[ M_i' = Q_i' \times P_i \times E \times (1+d), \]  
(5)

\[ M_i' = M_i(1+d)[1+e_i((1+p_i)(1+CET_i)/(1+t_i)-1)], \]  
(6)

\[ R = \sum_i M_i t_i, \]  
(7)

\[ R' = \sum_i CET_i M_i', \]  
(8)

\[ R' = \sum_i CET_i M_i'(1+d)[1+c_i((1+p_i)(1+CET_i)/(1+t_i)-1)]. \]  
(8')

Let \( R_{im} \) be the revenue impact; then:

\[ R_{im} = R' - R \]

\[ R_{im} = \sum_i CET_i M_i'(1+d) - \sum_i M_i t_i + \sum_i \left[ (1+p_i)(1+CET_i)/(1+t_i)-1 \right] \]

Using figures on intraregional imports from Table 3, and since import duty rates between COMESA members now stand at nearly 40 percent of the regular import duty rates--thus implying a 60 percent preference, \( \text{ Table 8 shows the ratio of customs duties collected on intraregional imports as a percent of total customs duties collected (coefficient } b \text{ in equation 3). Using figures in Table 7, customs duties collected on intraregional imports are further expressed as a percentage of total revenue (Table 9). This is obtained by multiplying data for respective countries in Table 8 by data in Table 7. The outcome is that duties on intraregional imports do not contribute significantly to total revenue, particularly in Kenya and Tanzania. This fraction of total revenue will automatically be lost by national treasuries as they remove internal tariffs.}

\[ b - (1-p) \times t \times a \times M / [(1-p) \times t \times a \times M + t \times (1-a) \times M] \]  
- (1-p) \times a / [(1-p) \times a + (1-a)]  
(3)

\[ \text{Table 8. Ratio of Customs Duties Collected on Intraregional Imports, 1993} \]

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage of total customs duties collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>4.5</td>
</tr>
<tr>
<td>Kenya</td>
<td>0.9</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2.2</td>
</tr>
<tr>
<td>Uganda</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Source: Calculations from Table 3, using equation (3).

Trade-weighted average tariffs indicate the hypothetical (average) revenue that would be generated if the full official tariff were applied to the import value of each product category. When applying equation (11), imports have been disaggregated into three categories: intermediate goods, capital goods, and consumer goods (see Table 4 for their tariff structures before and after the CET). Table 10 shows their average shares in total imports over the period 1991-93.

Table 10. Structure of Imports, Average 1991-93

<table>
<thead>
<tr>
<th></th>
<th>Burundi</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate goods</td>
<td>35.5</td>
<td>61.3</td>
<td>23.3</td>
<td>24.3</td>
</tr>
<tr>
<td>Capital goods</td>
<td>31.4</td>
<td>28.5</td>
<td>50.3</td>
<td>39.9</td>
</tr>
<tr>
<td>Consumer goods</td>
<td>33.1</td>
<td>10.1</td>
<td>26.3</td>
<td>35.8</td>
</tr>
</tbody>
</table>

Sources: Data provided by the authorities; and IMF staff estimates and calculations.

Based on present available empirical evidence, we have used two aggregate import elasticities, -0.88 and -1.4, considered to be reasonable estimates of the magnitude of the import response to price changes in African countries. 1/ The import trade-weighted average tariff using the existing tariff structure and the CBI-proposed tariff schedule are both shown in Table 11 (Columns 1 and 2, respectively). The difference between these two trade-weighted tariffs (Column 3) thus gives the revenue impact of the CET, assuming a zero import elasticity.

1/ These elasticities are taken from Arize and Afifi (1986). See also Pritchett (1988).
Table 11. Trade-Weighted Average Tariff Rate, 1993

<table>
<thead>
<tr>
<th></th>
<th>Under existing tariff structure (1)</th>
<th>Under the CBI-proposed CET (2)</th>
<th>Difference (3) = (2) - (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>21.6</td>
<td>15.1</td>
<td>-6.5</td>
</tr>
<tr>
<td>Kenya</td>
<td>18.0 1/</td>
<td>14.1</td>
<td>-3.9</td>
</tr>
<tr>
<td>Tanzania</td>
<td>30.3</td>
<td>13.8</td>
<td>-16.5</td>
</tr>
<tr>
<td>Uganda</td>
<td>17.2</td>
<td>14.8</td>
<td>-2.4</td>
</tr>
</tbody>
</table>

Sources: Calculations from Tables 4 and 10.

1/ As of June 1994.

The revenue impact of the CET in the cases of high and low import price elasticity are also estimated and expressed as a percentage of the value of imports (Table 12). Khan (1974) demonstrated that import-price-demand elasticity in developing countries is high and close to unity. Accordingly, and to remain conservative, the -1.4 elasticity case seems the most reasonable estimate, and subsequent results are reported only for this case.

Table 12. Estimated Revenue Impact of the CET Under Alternative Assumptions of Aggregate Import Price Elasticity

<table>
<thead>
<tr>
<th>Price elasticity of demand for imports</th>
<th>(0)</th>
<th>(-0.88)</th>
<th>(-1.4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(As a percentage of the value of imports)</td>
<td>Burundi</td>
<td>Kenya</td>
<td>Tanzania</td>
</tr>
<tr>
<td></td>
<td>-6.5</td>
<td>-3.9</td>
<td>-16.5</td>
</tr>
<tr>
<td></td>
<td>-5.7</td>
<td>-3.5</td>
<td>-15.0</td>
</tr>
<tr>
<td></td>
<td>-5.2</td>
<td>-3.2</td>
<td>-14.2</td>
</tr>
<tr>
<td></td>
<td>-2.4</td>
<td>-2.1</td>
<td>-1.9</td>
</tr>
</tbody>
</table>

Sources: Calculations from Tables 4 and 10, using equation (11).
Using the ratios of imports to GDP and customs duties to GDP (from Table 13), the estimated share of total revenue from customs duties with respect to intraregional imports (Table 9), and an estimated efficiency ratio of import duty collection, we calculate in Table 14 the revenue impact of the CET as a percentage of GDP, (Column 2); when added to estimates of the revenue impact of internal liberalization (Column 1), we obtain the total revenue impact as a percentage of GDP (Column 3). The results show that Burundi and Tanzania would experience the most important impact. Therefore, for fiscal policy to be neutral integration-oriented, the authorities in the countries under review must raise additional revenue equivalent to 0.95 percent of GDP in Burundi, 0.77 percent in Tanzania, 0.64 percent in Uganda, and 0.43 percent in Kenya. Otherwise, the revenue forgone will exacerbate the already existing fiscal deficits indicated in Table 2. Table 14, which breaks down the revenue impact, indicates that the implementation of the CET is likely to have the higher effect.

Table 13. Ratio of Imports, Indirect Taxes, and Total Revenue to GDP, 1993

<table>
<thead>
<tr>
<th></th>
<th>Imports</th>
<th>Indirect taxes</th>
<th>Sales tax</th>
<th>Excise tax</th>
<th>Customs duties</th>
<th>Other indirect taxes</th>
<th>Tax revenue</th>
<th>Total revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>18.2</td>
<td>10.1</td>
<td>2.9</td>
<td>3.7</td>
<td>3.3</td>
<td>0.1</td>
<td>14.8</td>
<td>17.3</td>
</tr>
<tr>
<td>Kenya 1/</td>
<td>29.0</td>
<td>11.9</td>
<td>7.0</td>
<td>2.7 2/</td>
<td>2.3</td>
<td>0.1</td>
<td>18.3</td>
<td>22.1</td>
</tr>
<tr>
<td>Tanzania 1/</td>
<td>53.8</td>
<td>7.7</td>
<td>3.9</td>
<td>1.9</td>
<td>1.5</td>
<td>--</td>
<td>13.9</td>
<td>16.8</td>
</tr>
<tr>
<td>Uganda 1/</td>
<td>17.7</td>
<td>5.8</td>
<td>1.7</td>
<td>0.5</td>
<td>3.2</td>
<td>0.4</td>
<td>7.1</td>
<td>7.7</td>
</tr>
</tbody>
</table>

**Sources:** Data provided by the authorities; and IMF staff calculations.

1/ Covering FY 1992/93 (July-June)
2/ Value-added tax.

1/ The efficiency ratio of import duty collection is estimated by comparing the trade-weighted average tariff (Table 11, Column 1) with the effective tariff rate (obtained by dividing Column 5 of Table 13 by Column 1 of Table 13). The ratios are 0.838 for Burundi, 0.439 for Kenya, 0.092 for Tanzania, and 1.052 for Uganda.
Table 14. Estimated Revenue Impact of Regional Integration-Oriented Tariff Reform

<table>
<thead>
<tr>
<th></th>
<th>Revenue impact of removing tariff on internal trade (1)</th>
<th>Revenue impact of introducing the CET (2)</th>
<th>Total revenue impact (3) = (1) + (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>-0.16</td>
<td>-0.79</td>
<td>-0.95</td>
</tr>
<tr>
<td>Kenya</td>
<td>-0.02</td>
<td>-0.41</td>
<td>-0.43</td>
</tr>
<tr>
<td>Tanzania</td>
<td>-0.07</td>
<td>-0.70</td>
<td>-0.77</td>
</tr>
<tr>
<td>Uganda</td>
<td>-0.28</td>
<td>-0.36</td>
<td>-0.64</td>
</tr>
</tbody>
</table>

(In percent of GDP)

Sources: Calculations from Tables 9, 12, and 13.

2. Offsetting budgetary implications of regional integration-oriented tariff reform: Economic integration and fiscal reform

The revenue losses resulting from regional integration could be offset in several ways, including revenue enhancement and expenditure cuts, an increase in net domestic and foreign borrowing from commercial banks, and a monetization of the deficit. This paper will focus on a reform of the tax structure with a view to enhancing revenue, thus leaving the other fiscal variables unchanged. The reform should factor in the need for a regional harmonization of domestic direct and indirect taxation. Before any attempt is made to outline the reforms needed, some brief theoretical considerations on the optimum tax structure may be useful.

a. Theoretical considerations on the optimum tax structure

A tax structure is supposed to be: (i) efficient, by minimizing the distortion in the allocation of resources; (ii) equitable, through its redistributinal role; (iii) of minimal cost with respect to resources required when assessing and collecting the tax; (iv) flexible, so as to allow needed adjustments; and (v) able to provide adequate resources to governments. This raises three issues: the respective weights of direct and indirect taxes in the government budget, the distribution of indirect taxation between external trade and domestic consumption-related transactions, and the structure of tax rates.

(1) Direct taxes versus indirect taxes

On efficiency and equity grounds, there is no clear-cut answer to this question. Some authors are of the view that a reasonable balance between direct and indirect taxation must be achieved, in which the former is assigned to the equity objective and the latter to the efficiency
objective. Others emphasize that direct taxation is superior to indirect taxation on both counts. The consensus today is that a balanced structure between direct and indirect taxation may be preferable as a long-term goal. However, given the difficulties of many African countries in raising revenue from direct taxation, indirect taxation is a feasible alternative allowing for a broadening of the tax base. Therefore, the subsequent analysis will focus mainly on the indirect tax systems of the countries under review.

(2) Taxation of international trade versus domestic indirect taxation

It is necessary to first recall shortly the optimal role of each instrument of indirect taxation. Import duties are put in place not only to protect domestic producers but also to provide an incentive for the domestic production of the imported goods. Sales taxes are imposed on imports and domestically produced goods for revenue collection purposes only. The modern type of sales tax is the value-added tax (VAT). Excise taxes are imposed on those goods for which the government wishes to discourage consumption. Therefore, the sales tax and the excise tax should be the same on imports and on domestically produced goods so as to leave the objective of protection entirely to the import duty.

Governments in developing countries often rely heavily on the taxation of international trade as one of the main revenue sources. This might be explained both by the relatively weak administrative capacity to collect other forms of revenue and the narrow tax base. However, this form of taxation has proven to have a particularly negative impact on resource allocation, economic efficiency, and growth. The goal is thus to move toward reduced taxation of international trade, particularly when global free trade is the long-term objective.

(3) Structure of tax rates

Regarding rates, the literature on indirect taxation reflects diverse views. While some favor the rule of uniform taxation (taxation of all commodities at equal percentage rates), on grounds of administrative simplicity and economic efficiency, others argue that different commodities ought to be taxed at different rates. The case for completely differentiated indirect tax rates is limited by weak administrative capacity in many African countries, making the option of a small number of rates the only manageable one. It may also be true that the welfare loss involved in using a uniform rather than optimal differentiated tax rates is small. On both grounds, a commendable structure would include few rates if not a uniform one. 1/ In light of the above theoretical considerations, one

1/ For a comprehensive analysis of the arguments in favor or using a single positive VAT rate, see Tait (1988).
approach would be to transfer the role of protection entirely to import duties. Domestic indirect tax rates on imports and on locally produced goods should be adjusted accordingly to the levels required by the harmonization process induced by regional integration.

b. Estimates of some offsetting fiscal measures

(1) Indirect tax rates adjustment to offset the revenue impact

As shown in Table 13, the ratio of tax revenue to GDP in the countries under review is very low, ranging from 7.1 percent in Uganda to 18.3 percent in Kenya. Table 15 provides estimates of additional tax revenue required to offset the revenue losses from regional integration (Table 14) and maintain the fiscal policy stance unchanged in the countries under review. Increases in tax collection amounting to 2.3 percent of current tax revenue in Kenya, 5.5 percent in Tanzania, 6.4 percent in Burundi, and 9.0 percent in Uganda are called for. Furthermore, Table 15 also indicates percentages by which indirect taxes as a whole, sales taxes, and excise taxes would have to be increased to offset the estimated revenue losses.

<table>
<thead>
<tr>
<th>Extra revenue needed as percent of</th>
<th>Indirect taxes</th>
<th>Sales taxes</th>
<th>Excise taxes</th>
<th>Tax revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>9.4</td>
<td>32.8</td>
<td>25.7</td>
<td>6.4</td>
</tr>
<tr>
<td>Kenya</td>
<td>3.6</td>
<td>6.1</td>
<td>15.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Tanzania</td>
<td>10.0</td>
<td>19.7</td>
<td>40.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Uganda</td>
<td>11.0</td>
<td>37.6</td>
<td>128.0</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Sources: Calculations from Tables 13 and 14.

The main features of the indirect tax systems of the countries under review are attached as an Appendix. Given their actual fiscal situation, broad-based and far-reaching revenue-raising measures are needed to meet the required additional fiscal effort. Looking at sales taxes (and/or the VAT) and on the basis of the standard rate of the sales tax in each country, Table 16 indicates the required adjustment of the sales tax rates necessary to offset the revenue impact. 1/ It is worth noting that only Kenya would

1/ Computed as the ratio of the standard rate times the total revenue impact (expressed as a share of GDP) to the share of sales taxes in GDP.
be in a position to offset the revenue impact stemming from the regional integration-oriented tariff reform by raising the standard VAT tax rate by only 1.1 percentage points, from 18 percent to 19.1 percent. In Burundi, Tanzania, and Uganda, adjustments of the sales tax rates ranging from 4.9 to 7.5 percentage points would be required.

Table 16. Estimated Adjustment of Sales Tax Rates

<table>
<thead>
<tr>
<th>Country</th>
<th>Current standard rate</th>
<th>Required adjustment</th>
<th>Adjusted rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>15</td>
<td>4.9</td>
<td>19.9</td>
</tr>
<tr>
<td>Kenya</td>
<td>18</td>
<td>1.1</td>
<td>19.1</td>
</tr>
<tr>
<td>Tanzania</td>
<td>25</td>
<td>4.9</td>
<td>29.9</td>
</tr>
<tr>
<td>Uganda</td>
<td>20</td>
<td>7.5</td>
<td>27.5</td>
</tr>
</tbody>
</table>

Sources: Calculations from Tables 13 and 14.

(2) Potential revenue gains from removal of import bans and fiscal exemptions

In import-compressed countries—where import bans and other import restrictions are a prime feature of the trade regime—removing quantitative restrictions and replacing them with tariffs could significantly improve government revenue. However, this is not the case for the countries under review, which have been liberalizing their trade regimes; and as a result, restrictions apply only on a few products. Their removal would not produce significant additional revenue. Nevertheless, the alleviation of the fiscal impact discussed above could result not only from the removal of import bans, but also from an improved management of fiscal exemptions and tax smuggling. Table 17 provides estimates of the extent of fiscal exemptions and tax smuggling (including misdeclarations, underdeclarations, and underinvoicing) as a percentage of imports (Column 3), by comparing the trade-weighted average tariff under existing tariff structures (Column 1), with effective rates of collection expressed as the ratios of customs duties to imports (Column 2). It also provides estimates of the extent of fiscal exemptions and tax smuggling as a percentage of GDP in each country (Column 4). Table 17 shows that the estimated revenue losses stemming from the tariff reform (Column 5) would be, with the exceptions of Burundi and Uganda, significantly reduced, or even eliminated, by the removal of import bans.

1/ For Uganda, the estimated extent of fiscal exemptions and tax smuggling as a percentage of GDP is extremely low, thus indicating that the country has already made substantial progress in these areas.
all fiscal exemptions as well as by a more effective control of tax smuggling. As mentioned before, the reform of the exemptions system and the reduction of the extent of smuggling are medium-term actions. Therefore, not much should be expected from this in terms of possible short-term revenue gains.

### Table 17. Estimated Extent of Fiscal Exemptions and Tax Smuggling, 1993

<table>
<thead>
<tr>
<th></th>
<th>Trade-weighted average tariff 1/ (In percent)</th>
<th>Effective tariff rates 2/ (In percent)</th>
<th>Extent of exemptions (As percent of imports)</th>
<th>Estimated Revenue Forgone (As percent of GDP) 4/</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>21.6</td>
<td>18.1</td>
<td>3.5</td>
<td>0.95</td>
</tr>
<tr>
<td>Kenya</td>
<td>18.0</td>
<td>7.9</td>
<td>10.1</td>
<td>0.43</td>
</tr>
<tr>
<td>Tanzania</td>
<td>30.3</td>
<td>2.8</td>
<td>27.5</td>
<td>0.77</td>
</tr>
<tr>
<td>Uganda</td>
<td>17.2</td>
<td>18.1</td>
<td>(0.9)</td>
<td>0.64</td>
</tr>
</tbody>
</table>

Sources: Calculations from Tables 11 and 13.

1/ Column 1 of Table 11.
2/ Calculated by dividing Column 5 of Table 13 by Column 1 of Table 13.
3/ Calculated by multiplying Column 3 of Table 17 by Column 1 of Table 13.
4/ Column 3 of Table 14.

3. **Regional integration and fiscal harmonization within the CBI**

For regional integration purposes, domestic indirect tax systems of member countries should be harmonized. Otherwise, divergent rates among member countries may significantly distort trade flows, since prices paid by local consumers include domestic indirect taxes. Let us first shortly examine some of the major harmonization issues, and then suggest approaches to achieve regional harmonization.

a. **Regional harmonization: Issues and difficulties**

The removal of fiscal distortions between CBI countries would significantly contribute to economic integration, as much as the elimination of internal trade barriers and related border controls would. The path toward fiscal harmonization raises two broad issues: fiscal borders and harmonization of the taxable basis, the rate structures, and fiscal exemptions.
With respect to the fiscal borders issue, indirect taxes may be levied on the basis of either the destination or the origin principle. According to the destination principle, on which WTO rules are based, all goods bear the taxes of the consuming country, regardless of where they are produced. A levy equal to domestic indirect taxes is imposed on imports, and exports are exempt from internal indirect taxes. Under the origin principle, all goods should be taxed in the country where they are produced. Domestic indirect taxes are then levied on exports and imports enter the country free of internal indirect taxes. Accordingly, the move to an advanced economic integration arrangement requires the adoption of the origin principle between members. In this case, fiscal borders disappear and internal fiscal border controls become unnecessary. However, this option requires a high degree of collaboration (to avoid evasion) and mutual trust between national fiscal administrations. Furthermore, there are budgetary implications in operating the origin principle. As a matter of fact, this system would lead to important budgetary transfers from countries that are net importers from their regional partners to countries that are net exporters, and create the need for a regional clearing system. On both grounds, this option is not a feasible one in the short term for the CBI countries.

The second issue is the harmonization of the taxable basis, the rates structures, and the fiscal exemptions. The domestic indirect tax systems in Burundi, Kenya, Tanzania, and Uganda actually differ in many respects (see Appendix). Kenya has already introduced the VAT as the sales tax instrument; Burundi, Tanzania, and Uganda have yet to do so. Also, the taxable basis for the sales tax varies. In Tanzania, the taxable basis for the sales tax is the price inclusive of the import duty and excise tax. In Burundi, a taxe de service and a surtaxe à l’importation are added to the import duty to make up the taxable price of imports. These two taxes share the protective role played by the import duty, since they do not apply to domestic goods. The rate structure varies widely from one country to another. Kenya has the greatest number of excise tax rates, and Uganda the greatest number of sales tax rates. The range of sales tax rates extends from the highest rate (40 percent) in Kenya to a zero percent rate in Tanzania and Uganda. The move to a uniform rate in these countries will certainly be difficult, considering the budgetary implications in countries with currently higher rates. Harmonizing excise taxes will prove even more difficult because they are applied to only a few products; countries producing them will favor low rates, contrary to consuming countries’ preferences. A more important obstacle in the way of harmonization is the loss of indirect taxes as an autonomous fiscal policy instrument.

1/ One of the objectives of the CBI is to facilitate border crossing of goods.
2/ In Burundi there is a wide-based transaction tax that should soon facilitate the move to a VAT. Uganda is advanced in efforts to introduce the VAT on July 1, 1996.
b. Approaches to regional harmonization

On the basis of the above findings, the envisaged tariff reform should be supported by changes in the indirect tax systems of the countries under review, including: (i) the introduction of a VAT system in those countries that have not already done so, namely Burundi, Tanzania, and Uganda; (ii) a continued reliance on the levy of indirect taxes under the destination principle, given their present weak administrative capacity; (iii) the shift to a two-rate structure, with a standard rate applying to most goods, and a zero rate applying to a few products (some specific farm inputs) and exported goods, for example; 1/ and (iv) a reliance on fewer excise duties at higher rates that would apply to luxury goods or on those goods whose consumption the authorities wish to discourage.

These recommended changes would certainly be revenue-enhancing, since domestic indirect taxes apply not only on imports but also on domestically produced goods. A narrow band would be determined, within which countries would have to fix their rates. 2/ In Burundi, the taxe de service and the surtaxe a l'importation would have to be removed after the rate structure is changed. The taxable basis would also have to be harmonized with the sales tax levied on a price that includes import duties and excises in all countries. 3/ In addition, medium-term reforms should be implemented, with the view of effectively eliminating all unnecessary fiscal exemptions, 4/ together with the establishment of reliable and effective safeguards against tax smuggling.

IV. Concluding Remarks

Since the first attempts at regional cooperation in the early 1960s, regional integration has long been a desirable goal, and is once again becoming a priority on the policy agenda of African countries. In Eastern and Southern Africa, the existence of significant trade in certain areas, despite the pervasiveness of the region's high trade barriers (tariff and nontariff), suggests that there is room for trade-related efficiency improvements. Effects on growth and investment are among the most important. Benefits of regional integration would be further enhanced by improvements in the economic infrastructure (particularly transport and telecommunications) of the countries involved as well as by the completion of the liberalization of foreign exchange payments, financial, and trade systems. However, given the high contribution of customs duties to total revenue in African countries, implementing regional integration measures may

1/ For more details on the desirability and the use of the zero rate, see Tait (1988).
2/ This solution was, for example, chosen by the European Union in its sixth directive harmonizing the Community VAT.
3/ Only Tanzania actually follows this rule.
4/ Unnecessary exemptions are those that are not provided by the Vienna Convention.
weaken the fiscal position of many governments. In the sample countries reviewed in this paper, complete removal of tariffs on internal trade as well as the introduction of the CET could mean, at present efficiency ratios of import duty collection and at least in the short run, budgetary revenue losses ranging from 0.43 percent of GDP (Kenya) to 0.95 percent of GDP (Burundi). Thus, ongoing integration efforts could be seriously undermined if their revenue implications are not duly considered and dealt with, including the timely introduction of tax reform measures to address the issues of revenue forgone and tax harmonization in the wake of regional integration.

In this paper, we have analyzed the potential effects on investment, trade, and growth of the regional integration efforts made by Burundi, Kenya, Tanzania, and Uganda under the framework of the CBI. Using a partial equilibrium approach, we have tried to address the issue of the fiscal implications of the regional integration process, providing estimates of the revenue losses, and recommending some short- and medium-term fiscal policy responses.

In the short term, although it has been argued that these revenue losses may be only temporary as growth is encouraged by regional integration, we have shown that in Burundi, Kenya, Uganda, and particularly Tanzania, additional fiscal efforts—ranging from 2.3 percent of current tax revenue in Kenya to 9.0 percent in Uganda—will be required to leave the fiscal position unaffected by the integration measures. As regards policy responses, it has been shown here that while in the case of Kenya a moderate adjustment of the standard VAT rate (from 18 percent to 19.1 percent) would be sufficient to offset the revenue forgone, adjustments in the range of 4.9 to 7.5 percent should take place in Burundi, Tanzania, and Uganda. Moreover, this analysis has also provided quantitative estimates of the extent of fiscal exemptions and tax smuggling in the countries under review, and it has been noted that an overall reduction of fiscal exemptions as well as a more effective control of tax smuggling could, at least in the medium term, significantly reduce or even eliminate the estimated revenue losses stemming from the tariff reform under the CBI.

In this paper, we have also discussed the medium-term fiscal policy actions needed to offset government revenue forgone and to harmonize taxes to comply with the regional integration process under the CBI. Accordingly, a series of reforms concerning the indirect tax systems of the countries under review has been recommended. Such reforms would include a reduction of taxation on international trade associated with a move toward other indirect taxes, and a revision of the role as well as the structure of indirect taxes. They would also entail the completion of the liberalization of foreign exchange, trade, and payments systems, the move toward a general adoption of a VAT (except Kenya), the continuation of the levy of indirect taxes under the destination principle, the improvement of the management of the entire structure of fiscal exemptions and the establishment of reliable and effective safeguards against tax smuggling.
## Structure of Indirect Taxes in the Countries Under Review

<table>
<thead>
<tr>
<th>Country</th>
<th>Sales Tax</th>
<th>Excise Tax</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Burundi | Basis: CIF price + customs duties + statistical tax or Sale price | Basis: ex-factory Tax levied on beer, soft drinks, and tobacco | Rates: 7, 15, 17%  
Transaction tax introduced in 1989. There is also a "surtaxe à l'importation" which is charged on imports. The basis for this tax is the import value plus customs duties. |
| Kenya  | Basis: import value + customs duty or Ex-factory price | Basis: ex-factory price or import value + customs duties | Rates: 5, 18, 40%  
Some specific rates exist for the sales tax. VAT introduced in 1989. |
| Tanzania | Basis: import value + customs duties + excise tax or Ex-factory price + excise tax | Basis: (i) on local goods--selling price of the goods excluding sales tax; (ii) on imported goods--customs value together with import duties on these goods, but excluding sales tax and any other taxes | Rates: 0, 25, 30%  
For excise tax, specific rates exist for alcoholic beverages and cigarettes, as well as for petroleum products which carry only specific excise duty. |
| Uganda | Basis: customs value on ex-factory price inclusive of customs duty and excise duty where applicable | Ad valorem duties | Rates: four rates are applied (0-30%)  
The excise tax is levied only on goods manufactured in Uganda. There also exists the commercial transaction levy (CTL). Introduction of the VAT is in progress, and scheduled for FY 1995/96. |

Sources: Data provided by the authorities.
References


Let \( b \) represent the share of customs duties collected on intra-regional imports in total customs duties collected, then from (2):

\[
\text{The revenue loss from internal liberalization is then a function of both the share of intraregional imports in total imports and the level of tariff preferences in effect.}
\]

Using figures on intraregional imports from Table 3, and since import duty rates between COMESA members now stand at nearly 40 percent of the regular import duty rates—thus implying a 60 percent preference, 1/

Table 8 shows the ratio of customs duties collected on intraregional imports as a percent of total customs duties collected (coefficient \( b \) in equation 3). Using figures in Table 7, customs duties collected on intraregional imports are further expressed as a percentage of total revenue (Table 9). This is obtained by multiplying data for respective countries in Table 8 by data in Table 7. The outcome is that duties on intraregional imports do not contribute significantly to total revenue, particularly in Kenya and Tanzania. This fraction of total revenue will automatically be lost by national treasuries as they remove internal tariffs.

\[
\begin{align*}
\text{Table 8. Ratio of Customs Duties Collected on Intraregional Imports, 1993} \\
\text{Percent of total customs duties collected} & \\
\text{Burundi} & 4.5 \\
\text{Kenya} & 0.9 \\
\text{Tanzania} & 2.2 \\
\text{Uganda} & 8.5 \\
\text{Source: Calculations from Table 3, using equation (3).} \\
\end{align*}
\]

Let $b$ represent the share of customs duties collected on intra-regional imports in total customs duties collected, then from (2):

$$\text{The revenue loss from internal liberalization is then a function of both the share of intraregional imports in total imports and the level of tariff preferences in effect.}$$

Using figures on intraregional imports from Table 3, and since import duty rates between COMESA members now stand at nearly 40 percent of the regular import duty rates—thus implying a 60 percent preference—Table 8 shows the ratio of customs duties collected on intraregional imports as a percent of total customs duties collected (coefficient $b$ in equation 3). Using figures in Table 7, customs duties collected on intraregional imports are further expressed as a percentage of total revenue (Table 9). This is obtained by multiplying data for respective countries in Table 8 by data in Table 7. The outcome is that duties on intraregional imports do not contribute significantly to total revenue, particularly in Kenya and Tanzania. This fraction of total revenue will automatically be lost by national treasuries as they remove internal tariffs.

\[
\begin{align*}
\frac{b - (1-p) \cdot t \cdot a \cdot M}{(1-p) \cdot t \cdot a \cdot M + t \cdot (1-a) \cdot M} 
\end{align*}
\]

\[
\frac{1-p}{(i - p) \cdot a + (1 - a)} \quad (3)
\]

Table 8. Ratio of Customs Duties Collected on Intraregional Imports, 1993

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent of total customs duties collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>4.5</td>
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<td>Kenya</td>
<td>0.9</td>
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<td>Tanzania</td>
<td>2.2</td>
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<tr>
<td>Uganda</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Source: Calculations from Table 3, using equation (3).