

**BIS** | Department for Business  
Innovation & Skills

**REGIONAL INTEGRATION AND  
TRADE IN SUB-SAHARAN AFRICA**

Trade and Investment Analytical  
Papers  
Topic 7 of 18

**DFID** Department for  
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# Contents

<b>Contents .....</b>	<b>3</b>
<b>Regional Integration and Trade in Sub-Saharan Africa .....</b>	<b>4</b>
Summary .....	4
1. Why Does Trade Matter to Africa? .....	5
2. Why Doesn't Sub-Saharan Africa Trade More? .....	7
2.1 Physical and Economic Geography .....	9
2.2 Infrastructure .....	9
2.3 Non-Tariff Barriers and Trade Logistics .....	11
2.4 Trade Policies .....	14
3. How Can Regional Integration Help? .....	16
4. What Impedes Regional Integration? .....	19
5. Africa Free Trade initiative .....	22
6. Conclusion .....	22
References .....	23

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# Regional Integration and Trade in Sub-Saharan Africa

## Summary

**This note examines why enhancing regional integration and trade are important issues for the future development of Sub-Saharan Africa. Key Messages are:**

- Evidence suggests that enhancing trade has a positive effect on both the growth and level of income
- Sub-Saharan African economies are typically small, undiversified and suffer from weak infrastructure
- Regional and global integration are complements and not substitutes; there is significant scope for Sub-Saharan African countries to both trade more with one another and the rest of the world
- HMG is supporting Sub-Saharan Africa to achieve this through the African Free Trade initiative

## 1. Why Does Trade Matter to Africa?

Through specialisation and an enhanced division of labour, the theory of comparative advantage states that increased openness to trade can boost the level of consumption and incomes in an economy. A significant body of international evidence confirms this proposition suggesting that greater openness to trade is, on average, associated with faster growth and increasing productivity<sup>1</sup>.

Trade openness can influence both growth and the level of income<sup>2</sup> through three key channels:

- 1. The transmission of technological innovation:** New growth theories emphasise the importance of technological spillovers as being a key source of long run growth. It is through such technological spillovers that trade enhances the ability of domestic firms to compete with firms in other economies, because imported goods embody foreign knowledge and expertise<sup>3</sup>. By preventing domestic producers from adapting new technologies to local uses and incorporating them into the production process, trade barriers impede the flow of technology into a country slowing down the long run growth rate of an economy<sup>4</sup>. This issue is especially pertinent in the developing countries in Sub-Saharan Africa (SSA) where technology lags behind the rest of the world with, for example, a mobile phone density of 55 subscribers per 1,000 people compared to 76 per 1,000 people in other low income countries.<sup>5</sup>
- 2. Facilitating Competition:** By exposing firms to enhanced competition, trade openness can force firms to lower costs, facilitating improvements in productivity and efficiency. By lowering the returns to producing in the import competing sector and increasing returns to exporting, trade openness facilitates a reallocation of resources from lower to higher productivity firms and sectors, leading to faster economic growth.
- 3. Economies of Scale:** By enabling firms to operate in more and larger markets, trade openness allows firms to realise the benefits of economies of scale, facilitating further cost reductions. The global economy provides a large market for the goods of SSA countries. Conversely a growth strategy for SSA countries that focuses exclusively on domestic demand will ultimately be unsustainable as the home market will be too small to facilitate sustained growth. Moreover, in a small economy, the comparative advantage of domestic producers will not necessarily correspond with the tastes and demands of domestic consumers. Since specialisation is limited by the extent of the market, a small closed domestic market (SSA has 18 countries with a population of less than 5 million) provides less scope for specialisation in its area of comparative advantage.

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<sup>1</sup> Winters, L.A. and A. Masters (2010)

<sup>2</sup> Winters, L.A. (2004)

<sup>3</sup> Coe, D.T, E.Helpman and A.W. Hoffmeister, (1997)

<sup>4</sup> Grossman, G and E. Helpman (1991)

<sup>5</sup> Foster, V. (2008)

The Growth Commission<sup>6</sup> found that in the post war era only 13 countries have grown at 7% or more for 25 consecutive years (an economy will double in size after growing at 7% a year for a decade). The Commission highlighted that while there is no one generic recipe for growth, there are a series of ingredients that countries can blend in different ways to suit their own unique circumstances. One of the eight ingredients highlighted by the Commission was trade-related; no country has grown on a sustained basis in recent times without increasingly integrating itself into the global economy. A common feature of the 13 high growth countries was that they had imported ideas and technology from the rest of the world and successfully increased their exports. In the 1990's per capita income grew more than three times faster for those developing countries that lowered trade barriers (5% per year) than for other developing countries (1.4% per year).<sup>7</sup>

While growth is not an end in and of itself, growth is the most important means of raising incomes and reducing poverty - accounting for approx 80% of poverty reduction in developing countries<sup>8</sup>. The impact of sustained growth over time can be dramatic. In 1960, South Korea had a GDP per capita only twice that of Zambia. Due to their different growth paths and policies, by 2009 South Korea's per capita income was nearly 40 times that of Zambia's while the rate of children dying before their fifth birthday was 5 per thousand compared to Zambia's 141 per thousand.<sup>9</sup>

While trade openness does create losers as well as winners, the realisation and distribution of the benefits of trade liberalisation is dependent upon the implementation of complementary policies.<sup>10</sup>

This note is divided into 6 sections. Section 2 outlines a number of factors that account for the low level of trade in SSA. Section 3 discusses how regional integration can assist SSA to trade more. The fourth section analyses the key constraints to regional integration. Section 5 outlines Her Majesty's Government key strategy to boost trade in SSA and section 6 draws some conclusions.

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<sup>6</sup> The Growth Report: Strategies for Sustained Growth and Inclusive Development (2008). Comprised largely of leaders from developing countries the Growth Commission sought to gather the best understanding there was about the policies and strategies that underlined rapid and sustained economic growth and poverty reduction

<sup>7</sup> OECD, ILO, WORLD BANK, WTO (11-12 November 2010)

<sup>8</sup> Kraay, A. (2006)

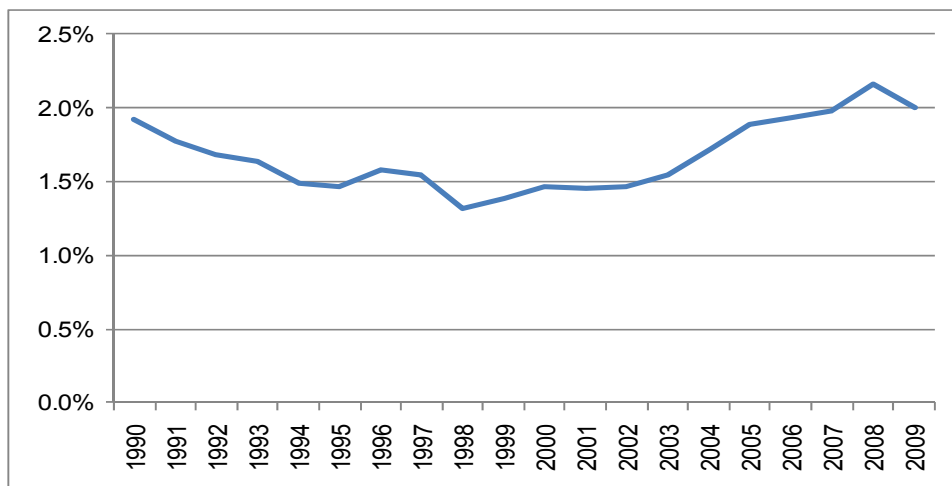
<sup>9</sup> World Bank, World Development Indicators

<sup>10</sup> Information on this point is covered in the trade and investment analytical paper on 'economic openness and economic prosperity' (topic 2 out of 18)

## 2. Why Doesn't SSA Trade More?

With over 50% of the population living below \$1.25 a day, SSA has a higher share of the population living in poverty than any other region in the world. SSA's share of world trade has ranged between approximately 1.3 and 2.2% over the last two decades.

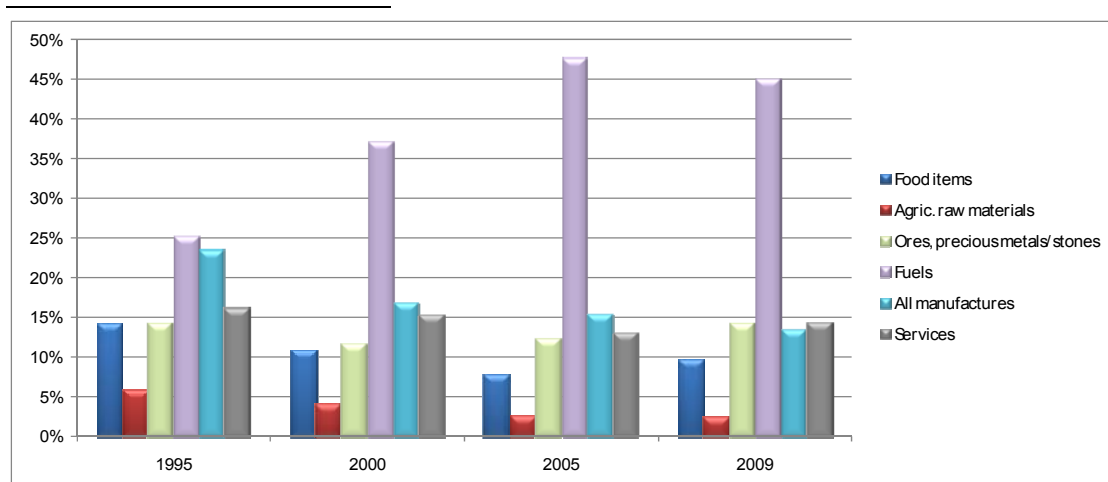
**Figure 1: SSA's Share of World Trade: 1990-2009**



Source: World Bank, World Development Indicators

Although SSA's share of world trade sounds small, in fact with SSA accounting for only 1.3% of world GDP in 2009, its contribution to world trade is larger than would be expected given the overall level of economic activity on the continent. However, as figure 2 demonstrates, exports of manufactured goods in SSA are low. With 45% of SSA exports in 2009 accounted for by fuels SSA is more dependent on primary commodity exports than any other region in the world.

**Figure 2: Composition of SSA's exports, selected years 1995-2009<sup>11</sup>**

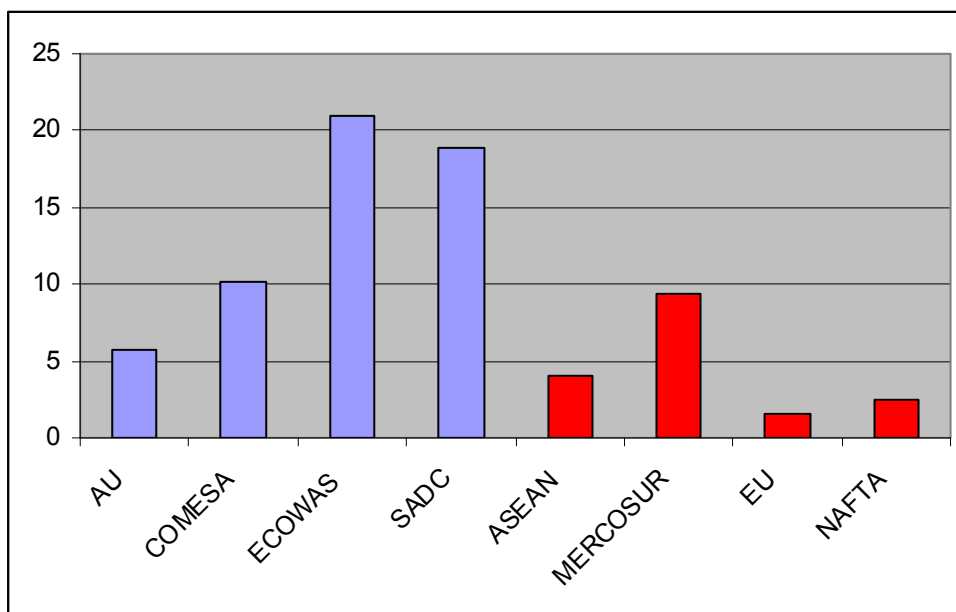


Source: UNCTAD, UNCTADstat.

<sup>11</sup> The totals from which these shares are calculated are the sum of the individual totals given in UNCTADstat for exports of merchandise trade and exports of services. Because of differences in the sources used by UNCTAD, the

Figure 3 depicts the intra-regional trade intensity index for various regional groupings in Africa and the rest of the world (African groupings are in blue and rest of the world groupings in red). The index is based on the ratio between a region's intra-regional trade share and its share of world trade. It is used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in world trade. A value of 1 means that the region is 'geographically neutral' i.e. the region shows no bias towards intra-regional trade. A value higher than 1 indicates that intra-regional trade is higher than would be expected. The intra-regional trade intensity index for the African Union nations is 5.7 i.e. the African Union trades nearly 6 times as much with itself as would be expected from its importance in world trade. This demonstrates that while lowering barriers to trade between SSA countries is important the objective of regional integration should not be to increase intra-regional trade per se but rather to enhance trade both within the region and more importantly the rest of the world. To focus on enhancing trade between SSA countries would be to target a market of 1.3% of world GDP at the expense of focusing on the rest of the world which generates 98.7% of world GDP.

**Figure 3: Intra-regional trade intensity index for selected regions<sup>12</sup>**



Source: Regional Integration Knowledge System Database <http://www.cris.unu.edu/riks/web/>

totals thus derived are not necessarily the same as those in UNCTADstat series 'Total trade in merchandise and services'.

<sup>12</sup> AU = African Union, COMESA = Common Market for Eastern and Southern Africa, ECOWAS = Economic Community of West African States, SADC = Southern African Development Community, ASEAN = Association of South East Asian Nations, MERCOSUR = Southern Common Market, , EU = European Union, NAFTA = North American Free Trade Agreement



## 2.1 Physical and Economic Geography

The reasons for SSA's poor non-fuel trade performance are multifaceted. However SSA is clearly constrained by its unusual physical and economic geography which includes the following:

- **small national economies:** SSA comprises 48 countries yet its combined Gross National Income is only 9% larger than the Netherlands.
- **fragmented markets:** SSA's population density is low and it is the least urbanised continent in the world<sup>13</sup>. This means that most SSA countries currently reap few of the benefits that can be derived from the agglomeration of economic activity.
- **constrained access to the sea:** The effect of low population density on productivity in Africa is reinforced by 30% of the population living in landlocked countries.

## 2.2 Infrastructure

These constraints to trade are further hampered by the poor state of SSA's infrastructure which pushes up trading costs. SSA's infrastructure has few regional linkages which keeps costs high. For example, Ethiopia and Democratic Republic of Congo have significant potential to develop hydroelectric power. However due to their distance from other centres of economic activity, realising this potential requires coordination between countries both to create the physical infrastructure for long distance electricity transmission but also the institutional infrastructure to allow regional electricity trading to take place.

Weaknesses in infrastructure serve to reduce GDP as opposed to trade per unit of GDP. Yet by lowering the overall level of economic activity deficient infrastructure does indirectly induce a fall in the extent to which a country/region trades with its neighbours. For example, enhanced trade in electricity would have large dividends but would be a means towards the rationalisation of power not an end in and of itself.

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<sup>13</sup> All data taken from World Bank, World Development Indicators

## Figure 4: The State of SSA's Infrastructure

### Weak transportation systems ...

- ▶ Transportation costs in SSA range from 15 to 20% of import costs, a figure 3–4 times that of developed countries.<sup>14</sup>
- ▶ On average, transport costs in SSA add 18.7% to the unit cost of goods.<sup>15</sup> The costs of intra-SSA trade are so high that the baseline costs of shipping to Uganda, across SSA, are higher than the costs of freight to Uganda from the US.<sup>16</sup> Overall, the costs of trading in SSA have not fallen since the mid-1990s.<sup>17</sup>
- ▶ Less than 40% of Africans living in rural areas are within two kilometres of an all-season road, compared with two-thirds of the population in other developing regions. Due to low population densities, addressing the rural isolation problem would entail a doubling or tripling of the current classified road network.<sup>18</sup> The unit cost of providing a basic infrastructure package in these conditions is US\$400 *per capita*, compared with US\$200 *per capita* in densely populated cities, even when the possibility of applying cheaper decentralised technologies in rural areas is taken into account.<sup>19</sup>

### Limited power supplies ...

- ▶ Africa's firms report losing 5% of their sales as a result of frequent power outages. This rises to 20% for informal sector firms unable to afford backup generation facilities.<sup>20</sup>
- ▶ Power consumption, at 124 kilowatt hours *per capita* per year and falling, is only a tenth of that found elsewhere in the developing world - barely enough to power one 100-watt light bulb per person for three hours a day.<sup>21</sup>
- ▶ 30% of the population have access to electricity. With 13% of the world's population, Africa consumes only 3% of the world's commercial energy.<sup>22</sup>

The combination of weak transportation systems and erratic power supplies highlighted in figure 4 serves to enhance the difficulties facing SSA firms which seek to engage in trade. This is compounded by the fact that the direct cost of using SSA's infrastructure is higher than in other low income countries, see figure 5.

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<sup>14</sup> Teravaninthorn S and G Raballand (2009)

<sup>15</sup> Morrissey, O. (2009)

<sup>16</sup> Ibid

<sup>17</sup> Morrissey, O. (2007)

<sup>18</sup> Gwilliam, K., Foster, V., Archondo-Callao, R., Briceño-Garmendia, C., Nogales, A. and Sethi, K. (2008)

<sup>19</sup> Foster, V. (2008).

<sup>20</sup> Ibid

<sup>21</sup> Ibid

<sup>22</sup> UNECA (2010), page 296

**Figure 5: SSA's Infrastructure Deficit and How This Costs Firms**

Measure	SSA's low income countries	Other low income countries	Rates Charged	SSA	Other developing regions
Electricity coverage (% households with access)	16	41	Power tariffs (US\$/kWh)	0.02-0.46	0.05-0.1
Total road density (Km/1000 km <sup>2</sup> )	137	211	Water tariffs (US\$/m <sup>3</sup> )	0.86-6.56	0.03-0.6
Mainline density (Subscribers per 1,000 people)	10	78	Road freight tariffs (US\$/ton/km)	0.04-0.14	0.01-0.04
Mobile density (Subscribers per 1,000 people)	55	76	Mobile telephony (US\$/basket/mo)	2.6-21.0	9.9
Internet density (Subscribers per 100 people)	2	3	International telephony (US\$3min call to US)	0.44-12.5	2.0
Generation capacity (MW per 1 million people)	37	326	Internet dial up service (US\$/mo)	6.7-148.0	11

Source: Yepes, T., Pierce, J. and Foster, V. (2008). 'Making Sense of Sub-Saharan Africa's Infrastructure Endowment: A Benchmarking Approach', Africa Infrastructure Country Diagnostic Working Paper No 1. Washington D.C.: World Bank; adapted from Foster, V. (2008). 'Overhauling the Engine of Growth: Infrastructure in Africa', Africa Infrastructure Country Diagnostic (draft Executive Summary of study prepared for Africa Infrastructure Country Diagnostic),

## 2.3 Non-Tariff Barriers and Trade Logistics

SSA's formal non-tariff barriers to trade are high<sup>23</sup> but a wider range of formal and informal non-tariff barriers constrain intra-regional trade, including onerous customs procedures, driver and vehicle related regulations, delays at ports, weighbridges and roadblocks.<sup>24</sup> Customs port procedures and inland transportation take on average three times longer in SSA countries than in OECD countries.<sup>25</sup>

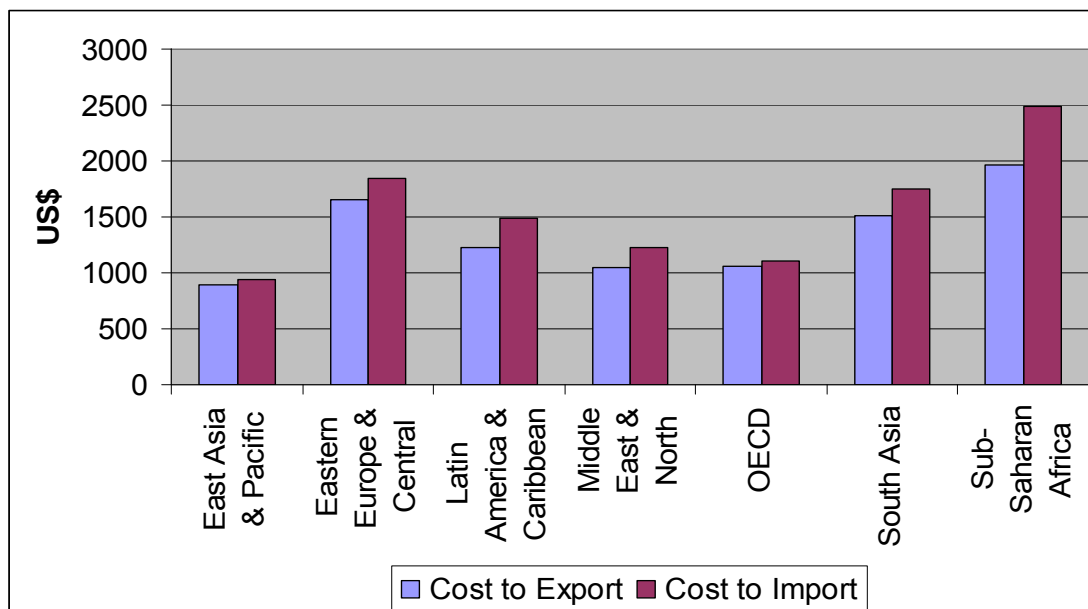
<sup>23</sup> This is shown by comparing Trade Restrictiveness Index (TRI) indicators with and without non-tariff measures (price control measures, quantity restrictions, monopolistic measures, technical regulations, agriculture support) : for Sub-Saharan Africa in 2007, Tariff TRI (MFN applied tariff) was 11.3% but overall TRI (MFN applied tariff +Non-tariff measures) was substantially higher at 18.4%. (These are both much higher than equivalent figures for OECD High Income countries of 3.9% and 9.4% respectively.) Source: World Trade Indicators.

<sup>24</sup> World Bank (2008a)

<sup>25</sup> Freund, C and N. Rocha (2010)

Figure 6 compares the costs of exporting and importing a 20-foot container in various parts of the world. The additional costs faced by SSA firms can be significant and analysis of these Doing Business indicators reveals that a 10% reduction in the cost associated with importing (exporting) would increase imports (exports) by about 4.8% (4.7%).<sup>26</sup>

**Figure 6: Cost of Export and Import Procedures, Doing Business 2011<sup>27</sup>**



Trade by SSA countries is also hindered by the time taken to trade<sup>28</sup> and uncertainty regarding the timing of trade due to the unreliability of logistics services, especially transit regimes for landlocked countries<sup>29</sup>. Each additional day that a product is delayed before being shipped reduces trade by more than one percent. This effect is significantly larger for time-sensitive goods which reduce a country's relative exports of such products by 6%.<sup>30</sup> The Citrus Growers Association of Southern Africa estimate that delays at the port of Durban cost its growers \$10.5 million per season on approx \$400 million of exports.<sup>31</sup>

Along a transport corridor the chain is only as strong as the weakest link. For example, even if the road and port have been upgraded, costly delays at a border or an underdeveloped railway can serve to significantly lower the overall level of utilisation of the corridor. This highlights the importance of institutional and regulatory improvements to complement better physical infrastructure.

The problem of trade facilitation is compounded, especially in West Africa, by the presence of roadblocks which cause delays and increase costs. Evidence suggests that at these

<sup>26</sup> Hoekman, B and A. Nicita (2008)

<sup>27</sup> Cost measures the fees levied on a 20-foot container in U.S. dollars. All the fees associated with completing the procedures to export or import the goods are included. These include costs for documents, administrative fees for customs clearance and technical control, customs broker fees, terminal handling charges and inland transport. The cost does not include customs tariffs and duties or costs related to ocean transport. Only official costs are recorded.

<sup>28</sup> S Djankov, C Freund C. Pham (2010)

Freund, C and N. Rocha (2010)

<sup>29</sup> J-F Arvis et al (2010)

<sup>30</sup> S Djankov, C Freund C. Pham (2010)

Freund, C and N. Rocha (2010)

<sup>31</sup> Gillson, I (2010)

checkpoints drivers are subjected to a mixture of charges and bribes, and that this extortion serves to divert some goods away from their intended destination. In theory the trip from Bangui (Central African Republic) to Douala (Cameroon) should take three days but typically takes between 7 and 10<sup>32</sup> days.

**Figure 7: Checkpoints on Selected West African Highways**

Highways	Distance, Km	Number of Checkpoints	Checkpoints per 100 km
Tema - Ouagadougou	962	25	2.6
Ouagadougou - Bamako	910	19	2.09
Lome - Ouagadougou	1036	23	2.22
Cotonou - Niamey	1036	34	3.28
Abidjan - Ouagadougou	1122	37	3.3
Niamey - Ouagadougou	529	20	3.78

Source: Assessing regional integration in Africa IV, UNECA 2010, p222

SSA's 15 landlocked countries suffer from particular constraints. In addition to the longer transport distances (for the 15 landlocked countries the average closest distance to the sea is over 1,100 km<sup>33</sup>), landlocked countries are also forced to rely on the infrastructure, institutional quality and political stability in their neighbouring countries. Landlocked countries also suffer complexities associated with seeking to facilitate the transport of goods across multi-modal journeys which are heightened by SSA utilising 9 different railway gauges, although there are 3 that are most commonly used. Efforts to quantify the costs associated with being landlocked have discovered that the median landlocked country tends to incur transport costs 50% higher than those of the median coastal country and to have trade volumes that are 60% lower.<sup>34</sup> In addition to being handicapped by their

<sup>32</sup> UNECA (2010)

<sup>33</sup> Mbekeani, K (2007)

<sup>34</sup> Limao, N and A. Venables (2001)

location, evidence suggests that landlocked countries are also policy constrained,<sup>35</sup> with the policies of landlocked countries in transport and telecommunications being on average twice as restrictive as elsewhere. This has the effect of creating a more limited access to services and induces a fall in the returns to infrastructure investments. This pattern is especially stark in SSA and suggests that there is scope for SSA's landlocked countries to implement policies to enhance their overall integration with their neighbours.

## 2.4 Trade Policies

The trade policies of SSA countries impede their own trade – both regionally and with global markets. Although they have fallen in recent years SSA's tariffs are on average 50% higher than those of comparable countries in South America and Asia.<sup>36</sup> Reducing import barriers can result in more competitive markets, more choice and cheaper consumer goods and inputs to production – with knock on improvements to domestic productivity and exports. Africa's import tariffs impose an implicit tax on exports which may be as high as 12%. This anti-export bias is created by raising the domestic price of imports relative to exports as well as the price of intermediate goods<sup>37</sup>. One estimate is that exports could increase by up to 20% if those tariffs were eliminated<sup>38</sup>.

Trade policies in the rest of the world also have an impact on African trade. Foreign import tariffs raise the price of African goods in overseas markets, reducing consumer demand and eroding any competitive advantage of African producers. Domestic support (subsidies) in developed countries boosts their production and depresses world prices.<sup>39</sup> Both types of policy make it harder for SSA exporters to profitably export their goods even when they are globally competitive. This reduces incentives to invest in export sectors and in the longer term risks those sectors going into decline. Non tariff barriers in non-African countries can have an equally damaging effect.

Borders have become much more liberalised over the last two decades, in part thanks to the GATT/WTO creating a credible multilateral rules based system ensuring that trade policies can be enforced by an international court. But protectionism still exists. Between 2003 and 2005, agricultural support in OECD countries amounted to US \$273 billion a year<sup>40</sup> costing developing countries approximately \$87 billion a year.<sup>41</sup> In general, tariffs are more distorting than subsidies<sup>42</sup> - estimates suggest over 90 percent of the global costs of protectionism come from market access restrictions rather than from export subsidies and domestic support.<sup>43</sup> However, their relative importance varies from product to product. For example 89 percent of the costs of interventions in cotton markets *are* thought to be due to export subsidies and domestic support programs.<sup>44</sup> The net impact of tariffs and subsidies also varies from country to country. High tariffs and domestic support policies may benefit consumers of agriculture products in net food-importing developing countries by providing access to the subsidised commodities at lower prices. Evidence

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<sup>35</sup> Borchert et al (2011)

<sup>36</sup> McKinsey & Company (2010)

<sup>37</sup> Tokarick, S (2006)

<sup>38</sup> Ibid

<sup>39</sup> Hoekman, B. F. Ng and M. Olarreaga (2002)

<sup>40</sup> ICTSD (2009)

<sup>41</sup> Anderson, K. Martin, W. and E. Valenzuela (2005)

<sup>42</sup> Hoekman, B. F. Ng and M. Olarreaga (2002)

<sup>43</sup> Anderson, K. Martin, W. and E. Valenzuela (2005)

<sup>44</sup> World Bank (2008b)

suggests that this is true for the impact of EU export subsidies on net food-importing African countries.<sup>45</sup> Despite this, it is generally agreed that overall, developing country producers would gain significantly from a reform of agricultural policies, outweighing potential costs to consumers.<sup>46</sup>

Because of continued protection, global gains that could be reaped from the ongoing Doha Development Round (DDA) are estimated at up to £110 billion<sup>47</sup> and the agreement covers many areas that should help increase SSA trade. The benefits to SSA may come less from lower tariffs as SSA already has better market access to high income countries than any other region in the world.<sup>48</sup> The deal would, however, bind existing liberalisation, as well as address trade distorting subsidies: locking in reforms to the EU's Common Agricultural Policy and eliminating export subsidies for agricultural goods. The agreement on trade facilitation would address the implicit tax that SSA firms experience through deficient infrastructure (discussed in the previous section) and could well boost trade by more than developed country tariff reform.<sup>49</sup> Projections of the increase in SSA trade as a result of the DDA deal on trade facilitation are estimated at €10 billion in additional economic activity each year.<sup>50</sup>

Prompted by the desire to increase exports from SSA countries, outside of the Doha round much of SSA is given preferential access to major Western markets. The UK is pressing in the G20 to extend 100% Duty-Free Quota-Free access to all LDCs, which could boost LDC exports by up to 40%, equivalent to some \$7bn.<sup>51</sup> Within the EU, preferences are provided to LDCs through the non-reciprocal Everything But Arms (EBA) scheme, and to the majority of other countries in SSA through Economic Partnership Agreements (EPAs) - reciprocal and asymmetric free trade agreements designed to secure WTO-compatible access to EU markets and promote African economic liberalisation and regional integration.<sup>52</sup> In January 2011 the EU reformed the Rules of Origin of EBA in order to significantly increase the ability of developing countries, especially LDCs, to make use of the preferences and to enable the growth of south-south supply chains. It has also introduced new Rules of Origin into EPAs, also aimed at promoting increased exports through regional integration across Africa by allowing cumulation across EPA regions and with LDCs. However, whilst reforms to rules of origin can help preferential trade schemes work more effectively these schemes need to be complemented by other actions. As discussed in previous sections it is also important to address regulatory and infrastructure challenges, as well as trade policies within SSA countries themselves, to enable these countries to reach their trading potential.

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<sup>45</sup> Renwick, A. Revoredo-Giha, C. Toma, L. Philippidis, G. (2010)

<sup>46</sup> Hoekman, B. F. Ng and M. Olarreaga (2002)

<sup>47</sup> Decreux Y. and L. Fontagné (2009)

<sup>48</sup> Hoekman, B and A. Nicita (2008)

<sup>49</sup> Francois, J and M. Manchin, (2007)

Portugal – Perez, A and J. Wilson (2008)

S Djankov, C Freund C. Pham (2010)

Hoekman, B and A. Nicita (2008)

<sup>50</sup> Decreux Y. and L. Fontagné (2009)

<sup>51</sup> Centre for Global Development (2010)

<sup>52</sup> Most EPAs are currently being provisionally applied pending final signature or ratification.

### 3. How Can Regional Integration Help?

As outlined above SSA is characterised by numerous small and undiversified economies that are typically distant from both major markets within SSA and global markets. However enormous gains can be made from enhancing regional integration in the continent. Regional coordination and cooperation should aim to create regional public goods - goods that countries cannot cost effectively provide on their own. Regional programmes provide a means for countries to effectively tackle regional externalities. In the absence of a regional approach there would be underinvestment in activities such as cross-border trade facilitation which bring positive spillover effects. This is a critical issue for SSA's 15 landlocked countries that face transport costs as high as 77% of the value of exports.<sup>53</sup>

The high cost of infrastructure services in SSA is in part due to the small size of domestic markets that prevent countries from achieving economies of scale. For example twenty-one SSA countries have national power systems below the minimum efficient scale of a single plant,<sup>54</sup> and as such many SSA economies are too small to develop infrastructure cost effectively on their own.<sup>55</sup>

Through enabling firms in neighbouring countries to produce final goods more cheaply by building international supply chains, regional integration in SSA can enable the realisation of economies of scale. Moreover the enhanced competition created by opening up national markets to regional competition provides incentives for firms to reduce costs delivering welfare benefits for consumers.

Crucially, regional integration and global integration are complements and not substitutes. By adopting a liberal regionalism approach involving the regional integration of markets for goods, services and factors of production, combined with low external tariffs, the economies of SSA should be able to more easily tap into global markets. The 2009 World Development Report<sup>56</sup> argued that without global integration the benefits of regional integration would be small, and without regional integration the benefits from global integration might be unattainable for some countries which cannot compete on a global scale by themselves. Regional integration is not simply about adapting inward-focused policies at the regional level which have failed to deliver at the national level. Rather it is a means to achieving greater global integration. The key objective of regional integration is to be better connected to global markets.

The trade impacts of regional integration can take two main forms: trade creation and trade diversion. The former is welfare enhancing and occurs when integration stimulates new trade flows that displace high cost domestic production. Trade diversion is welfare depleting and occurs when imports shift away from more efficient global suppliers towards less efficient regional partners. If SSA focused solely on lowering barriers to intra-African trade there is a danger that costs of trade diversion would outweigh the benefits of trade creation. However, through a liberal-regionalism approach SSA will be able to minimise the scope for trade diversion and maximise the benefits of trade creation. Moreover trade creation and diversion can be seen as representing the static effects of regional trade

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<sup>53</sup> UNECA (2010)

<sup>54</sup> The minimum efficient scale corresponds to the lowest level of output at which average costs are minimised. It reflects the level of output at which economies of scale have been fully exploited.

<sup>55</sup> Foster, V. (2008)

<sup>56</sup> World Bank (2009)



integration. The dynamic benefits of increased competition, exploitation of economies of scale and technology diffusion (outlined in section 1) suggest that regional integration can have a long term impact on growth and productivity. There is evidence of such dynamic effects of regional integration in Africa on firm level productivity in Benin, Malawi and South Africa.<sup>57</sup>

A growth diagnostic<sup>58</sup> in Uganda discovered that a number of the binding constraints to growth in Uganda had a regional element - if they were overcome, growth would be likely to increase by 2-4 percentage points.<sup>59</sup> For example, Uganda's shortage of electricity could be alleviated by the use of regional electricity grids. This has scope to deliver key benefits. In addition to facing significant economies of scale, electricity is subject to peaks in demand, but the low levels of regional electricity trading cannot at present be pooled to overcome lower demand at other times of the day. The volatility of energy demand leads to redundant capacity for the majority of the day and sometimes to energy rationing during peak hours. Regional electricity pools would help to alleviate this situation.

In addition to focusing on hard infrastructure, soft infrastructure is also important to enable firms to trade. Delays at borders, customs procedures, standards and regulations can all serve to act as an effective tax on trading. Through a regional approach common standards and systems can be agreed between neighbouring countries thereby lowering the costs of trading.

One approach to facilitating trade in SSA has focused on seeking to lower barriers to trade along specific transport corridors. Through its support to TradeMark programmes in East and Southern Africa DFID has championed the transport corridor approach. Recent experiences of transport corridors demonstrate that significant results have been achieved. For example:

- In the corridor linking Mombasa with Kampala, between 2006 – 2011 the time taken to import a container fell from 67 days to 34 days and time taken to export a container fell from 42 days to 37 days.<sup>60</sup>
- In Central Africa (linking Chad, Central African Republic and Cameroon) the reduced transport costs due to improvements in road and rail are expected to account for US\$ 86.2m per annum.<sup>61</sup>
- Walvis Bay Corridor Group has achieved a reduction in the average SADC customs clearance time of 48 hours with Namibia and Zambia customs clearance taking only 2 hours.<sup>62</sup>

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<sup>57</sup> te Velde , D (2008)

<sup>58</sup> Growth diagnostics aim to ascertain the binding constraint to growth in a given country

<sup>59</sup> World Bank (2007)

<sup>60</sup> World Bank, Doing Business

<sup>61</sup> Meyn, M and te Velde D.W. (2008)

<sup>62</sup> *ibid*

Since 2007 DFID has been helping the governments of Zambia and Zimbabwe to improve the border post at Chirundu which handles 300 to 400 trucks a day. The One Stop Border Post at Chirundu was opened by the Presidents of the two countries in December 2009. Prior to this, the waiting times at Chirundu were up to 5 days, averaging 72 hours. A survey in August-September 2010 indicated that the average time had fallen to 37 hours for imports into Zambia and 13 hours for exports out of Zambia.<sup>63</sup> As a result of this success the Chirundu One Stop Border Post received the Southern Africa Development Community excellent performance award at the 2011 African Business Award Ceremony.<sup>64</sup>

**Figure 8: Transport Corridors Under Development in SSA**



<sup>63</sup> TradeMark Southern Africa (2010)

<sup>64</sup> <http://www.trademarksa.org/news/chirundu-border-post-receives-sadc-award>

## 4. What Impedes Regional Integration?

Although Regional Integration initiatives in SSA have a long history dating back to the establishment of the South African Customs Union in 1910 and the creation of the East African Community in 1919, the overall results delivered from such initiatives have typically been less than satisfactory.

There are a number of stages in the regional integration process. These range from the creation of a preferential trading area to the formation of an economic and monetary union. African leaders agreed in the 1991 Abuja Treaty to develop Free Trade Areas in each Regional Economic Community (REC), as building blocks for a continent-wide customs union and ultimately an African Economic Community by 2028. A significant step in the integration process is the formation of a customs union at REC level, a move which entails the elimination of tariffs and quotas between members and the creation of a common external tariff.

Many African countries have chosen to become members of more than one REC (See Figure 9). The proliferation of RECs, with their differing Rules of Origin, tariffs and customs procedures cause delays, confusion and increase the cost of trade acting as a further constraint to regional integration.

Despite the enormous potential returns from regional integration, the inadequate level of success to date reflects the difficulty associated with providing a public good at a level above that of a nation state. Given the small size of the majority of SSA economies and the large number that are landlocked it is likely that the provision of public goods at the level of nation states is sub-optimal. The supply of public goods, which by definition are subject to enormous economies of scale due to their property of non-rivalry, entails huge collective action problems. These are typically resolved at the level of nation-states through compulsory taxation in order to overcome the free rider problem.

For regional public goods, however, ensuring an optimal level of supply is significantly harder as it requires a high level of trust and cooperation between countries<sup>65</sup>. This situation is made more complicated by the fact that many regional goods are not necessarily pure public goods. This mixed nature of regional goods means that they do not necessarily benefit all members of the region equally. For example a new road that crosses an international border is not a pure public good because it is rivalrous once congestion passes a certain point, and if a toll is charged it can be excludable. Ensuring the successful provision of the road will require cooperation from both countries (if only one country constructs the road it may be of little value), but in a situation where the benefits of the road construction are unequally distributed between the 2 countries the optimal level of provision may not be reached. Under such a scenario the landlocked country would typically have the most to gain from the provision of the road. However, depending on the nature of the road and the size of the countries the majority of the construction may be required in the coastal country. Such a situation between landlocked and coastal countries creates an enormously asymmetric relationship with the former relying on the investments made by the latter although this relationship is not reciprocated making negotiation based on shared interests problematic. The introduction of a third country that has a vested interest in the success of the road project would only serve to further complicate the matter.

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<sup>65</sup> Schiff, M and L.A. Winters (2002)

Uncertainty about the likely distribution of costs and benefits can further act as a constraint to providing regional public goods, while in a large group some members may free ride on the efforts of others.<sup>66</sup> Even if coordination problems can be overcome, the ability of countries and/or the private sector to provide the required level of financing towards the provision of regional goods may be inadequate. Two characterisations of these challenges are the 'weakest link' and the 'best shot' problems of providing a regional public goods.<sup>67</sup> 'Weakest link' situations are where some countries cannot contribute enough of the good leading to other countries accordingly cutting back. The overall level of provision is thus related to that which can be provided by the weakest member of the group. The 'best shot' situation is where a critical level of investment is needed for the good to be delivered and no country has the capacity to deliver this. Under this scenario the provision is dependent upon that which can be provided by the strongest member of the group.

These various constraints regarding the provision of regional public goods provide the rationale for external support to enhance their overall level of supply.<sup>68</sup> Through the creation of a tripartite of three of the largest RECs, (The Common Market for Eastern and Southern Africa, The East African Community and The Southern Africa Development Community) efforts are being taken forward to create a free trade area and harmonise regulations and standards in 26 SSA countries.

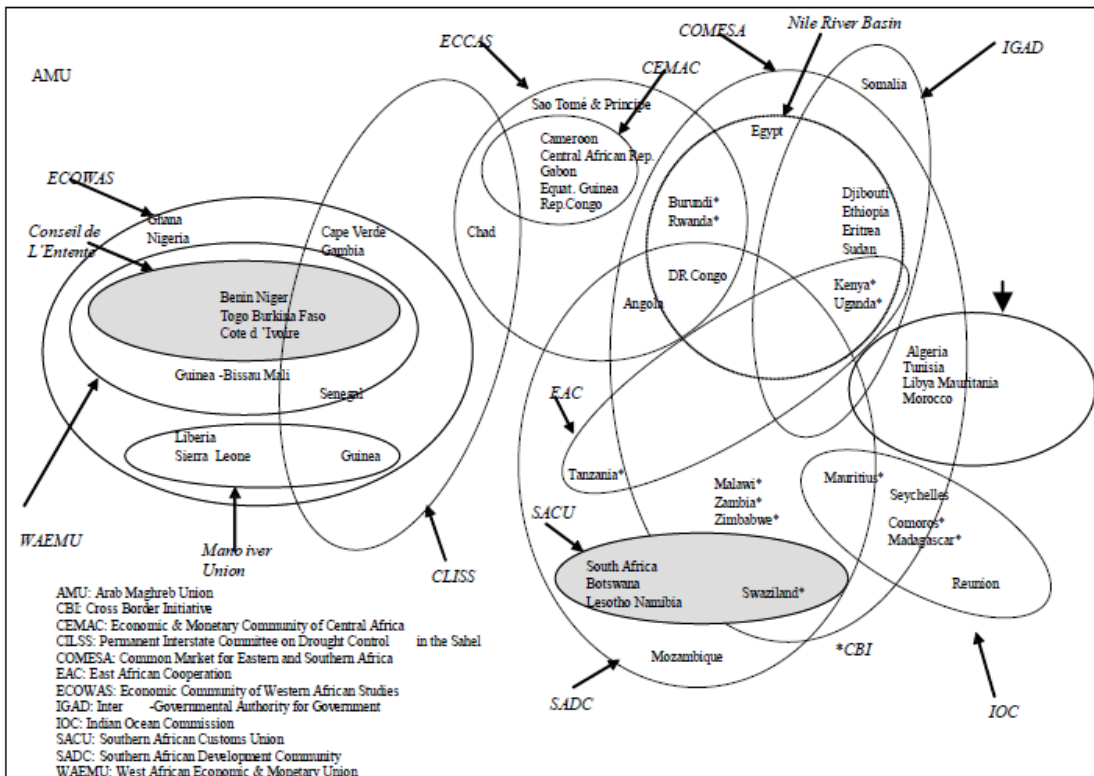
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<sup>66</sup> Olson, M. (1965)

<sup>67</sup> Hirshleifer, J (1983)

<sup>68</sup> Estevadeoral, A, B. Frantz and T. Nguyen (2004)

**Figure 9: The Spaghetti Bowl of African Regional Economic Organisations**



Source: Africa' Silk Road: China and India's New Economic Frontier, World Bank, 2007, Page 16

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## **5. Africa Free Trade initiative**

In response to these issues, Her Majesty's Government is launching a new initiative to boost African trade through reduced bureaucracy, improved transport infrastructure and more efficient border crossings. The African Free Trade initiative is a programme of investment, technical assistance and political support in order to unblock issues that continue to hold back economic growth across the region. The initiative will help to break down trade barriers and open up opportunities for entrepreneurs, both large and small, to access new markets and invest in expanding production and trade.

## **6. Conclusion**

Although SSA has a lot to gain from enhancing regional integration as a means of facilitating trade both with itself and the rest of the world, progress in this area has been limited to date. SSA's deficient infrastructure (both hard and soft) acts as a significant constraint to trade. This has been amplified by SSA's small, isolated and undiversified economies. Overcoming the collective action problems required to rectify this situation will require a high level of political commitment over an extended period of time.

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