



The Business of Exporting: Transaction Costs Facing Suppliers in Sub-Saharan Africa

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Introduction

Despite Africa's improved economic performance in recent years, the continent still lags in the area of trade competitiveness. Since trade is recognized as one of the core contributors to economic development (Azam et al., 2002), it follows that improving the investment climate and enhancing the capacity of African entrepreneurs to invest and engage in business are central to improving competitiveness. Yet Africa remains a high-cost, high-risk business environment. One estimate put the cost of doing business in Africa at 20–40% above that of other developing regions (World Bank, 2005). Transaction costs are high at every step of establishing and running a business. Roads and other infrastructure are usually inadequate to say the least, the policy regime is often uncertain, contract enforcement is costly if it exists and corruption permeates the regulatory environment. Competition is also strangled by the lopsided position of well connected companies and a concentrated industrial structure, where large firms hold very dominant market shares.

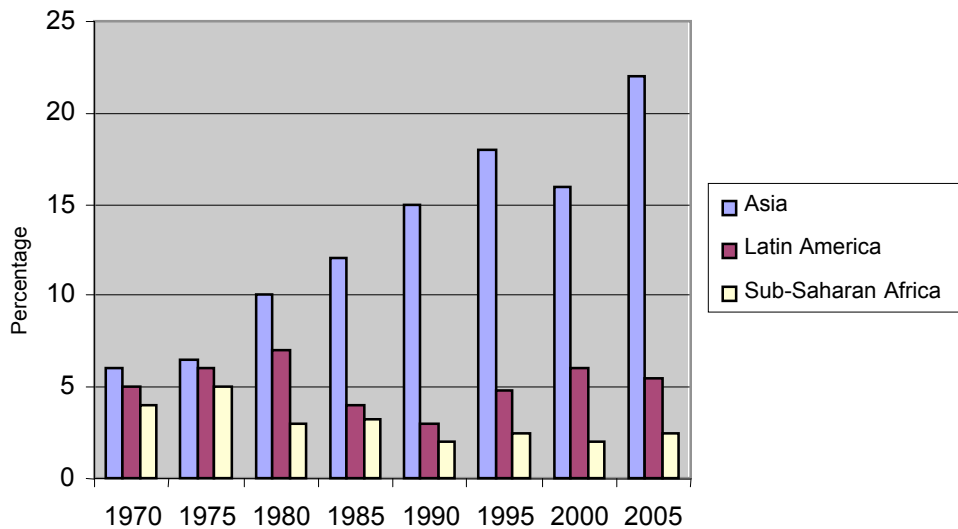
Addressing these constraints should be a priority of government in Africa, particularly the sub-Saharan region. The purpose of this paper is to give a broad overview of the difficulties SSA's high transaction costs present to African exporters. The paper discusses transaction costs and market related problems facing African exporters at all the levels of export trade in the agricultural, horticultural and manufacturing subsectors. The idea is to provide a foundation for the country case studies in the collaborative research project on *Export Supply Response Constraints* conducted by the African Economic Research Consortium (AERC). The paper reviews the various types of transaction costs and highlights some statistics from numerous existing studies so that their methodologies can be assessed and possibly applied to the country case studies. In terms of the flow of the paper, we first look very briefly at historical downward trends in SSA's trade position and loss of market share, and some of the factors contributing to the decline. We then review in detail production related constraints, other supply related constraints and financial constraints. These are followed by discussions of constraints to facilitation and to distribution channels. Recommendations for issues and approaches for the project's country case studies close the presentation.

A Brief Look at SSA's Trade Position

Since 1970, SSA's trade (exports plus imports) has grown at three-fourths the world rate and only about half that of Asia. Africa's share in world trade has thus fallen from 4% in the 1970s to 2% to date (Figure 1). Its trade openness (measured by the trade-to-GDP ratio) has also grown more slowly than that of any other major developing region and in 2001 Africa supplanted Latin America as the region of the world least open to trade.

The big question is why is Africa's trade not competitive? Africa's marginalization in trade is blamed variously on closed trade regimes (Sachs and Warner 1995, 1997), the fact that the region's economies have become more inward-looking at a time when the rest of the world is integrating into the world economy (Collier, 1995), and the persistence of structural and trade policies that militate against international competitiveness (Yeats et al., 1997). In turn, Rodrik (1997) attributes the relatively slow growth of Africa's GDP to the marginalization of the region in world trade, which itself stems in part from its geography and the level of income per capita.

Figure 1: Percentage share of world trade by region



Source: IMF, Direction of Trade Statistics (2004).

Empirical evidence shows that the most binding constraint in African countries in general is high transaction costs, and the paper supports that view. Yet most agricultural, horticultural and manufactured exports – the very areas that are most important in SSA’s trade regime – are transaction intensive. Eifert et al. (2005), for example, show how high indirect costs reduce the productivity and competitiveness of manufacturers across Africa. These costs not only erode the manufacturer’s profitability but also the region’s trade competitiveness. Transaction costs range from high regulatory costs, unsecured land and tenuous property rights, to inadequate and high-cost infrastructure as well as unfair competition from well-connected companies. Besides these, ineffective judiciary systems, policy uncertainty and corruption push the cost of doing business in Africa 20–40% above that of other developing regions (World Bank, *Doing Business*, 2006). Additional studies have pointed to several other factors that are responsible for Africa’s declining trend of international trade. Among these are the structure of international trade; market access constraints; and agricultural policies in developed countries. Africa’s own high wage costs, domestic relative prices, real exchange rates, and poor trade and economic policies contribute to the substantial erosion of market share of SSA countries (Manduna, 2005). The result of high transaction costs is low profitability for entrepreneurs and thus a hostile investment climate.

The ability of countries to deliver goods and services in time and at low cost is a key determinant of their participation in international trade. Easier movement of goods and services drives export competitiveness. A study by UNCTAD (2001) shows that a 1% reduction in the cost of maritime and air transport services could increase Asian GDP by some US\$3.3 billion, while an additional US\$3.6 billion could be gained by a 1% improvement in the productivity of that service sector. APEC (1999) says that “shock” reductions in trade costs from trade efforts vary from 1% of import prices for industrial countries and the newly industrializing countries of Korea, Chinese Taipei and Singapore, to 2% for other developing countries.

In order to derive greater benefit from the increases in market access, African countries need competitive enterprises that are able to produce products and services of good quality at reasonable costs. They also need to have efficient mechanisms in place to ensure that these products and services can reach international markets within the time and cost required to stay competitive (UNESCO, 2004). For these to be achieved, the public sector must put policies in place

to reduce the transaction costs associated with, for example, geography, infrastructure and the regulatory environment. Policies may also support the effectiveness of production factors through education and training (Elbadawi et al., 1997a) and openness (Adenikinju et al., 1998). Exchange-rate policy and improvement of the institutional environment are additional areas that can enhance overall competitiveness (Elbadawi, 1998; Sekkat and Varoudakis, 1998), while North (1998) emphasizes the importance of institution building. Among the institutional factors with positive impacts on growth are the rule of law (Barro, 1998), low levels of corruption (Mauro, 1995) and political stability (Fosu, 1992).

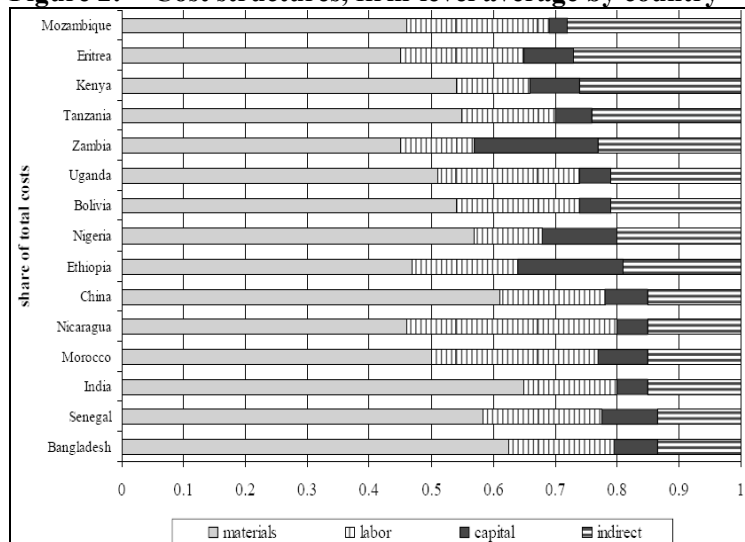
All these factors combined point to the need for Africa to create a business climate characterized by smoothly operating markets and accessible, efficient, transparent and accountable public and private sector institutions, better physical infrastructure, and efficient trade procedures and support structures. To accomplish this, Africa needs to build a skilled and productive workforce and improve access to capital and technology as well as easy, low-cost and timely access to information and to efficient and competitively priced business support services, including transport, information and communication services.

Constraints to Production

In many SSA countries local enterprises face serious constraints in producing goods for export. These constraints range from the initial costs of starting a business and high unit labour costs, to the lack of skills, the high costs of raw materials and inadequate capital. Compliance costs, technical barriers, low labour productivity (arising from poor education and ill health), low capital productivity and poor macroeconomic environment are other contributors to the high cost of production.

Figure 2 provides a cross-country comparison of some of production related costs, including labour (wages, benefits), capital (interest, finance charges, machine depreciation), raw materials and other indirect costs. The figure also shows that capital costs related to the business environment are a major cost in Ethiopia, Nigeria and Zambia. The following sections provide more detail about specific aspects of production costs.

Figure 2: Cost structures, firm-level average by country



Source: Eifert et al. (2005).

Initial Costs

Starting an export-oriented business means coping with the myriad of bureaucratic and legal transaction costs required to incorporate and register a new firm. These hurdles include numerous procedures and the cost of time associated with lags in launching the business. Region specific government regulations for starting such a business in East Asia and Pacific require an entrepreneur to complete 8.2 procedures, which can take up to 46.3 business days, to pay costs amounting to 42.8% of gross national income (GNI) per capita and to have available minimum capital equal to 60.3% of GNI per capita (see Table 1). To do the same in Europe and Central Asia, an entrepreneur needs to follow 9.4 different procedures, spend 32.0 business days to acquire the necessary permits, pay fees equal to 14.1% of GNI per capita and post minimum capital of 53.9% of GNI per capita. In contrast, the process for an entrepreneur in sub-Saharan Africa requires 11.1 procedures, 61.8 business days, fees amounting to 162.8% of GNI per capita and available capital equivalent to 209.9% of per capita GNI (World Bank, 2006).

Table 1: Number of procedures time, and cost to start an export business (costs as % of GNI per capita)

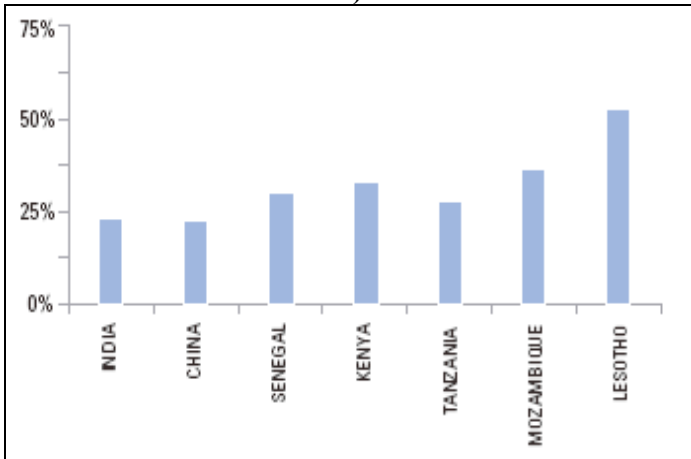
Region or economic group	Procedures (number)	Duration (days)	Cost (% GNI per capita)	Min. capital (% GNI per capita)
East Asia & Pacific	8.2	46.3	42.8	60.3
Europe & Central Asia	9.4	32.0	14.1	53.9
Latin America & Caribbean	10.2	73.3	48.1	18.1
Middle East & North Africa	10.3	40.9	74.5	744.5
OECD	6.2	16.6	5.3	36.1
South Asia	7.9	32.5	46.6	0.8
Sub-Saharan Africa	11.1	61.8	162.8	209.9

Source: World Bank (2007).

Labour Costs, Wages and Productivity

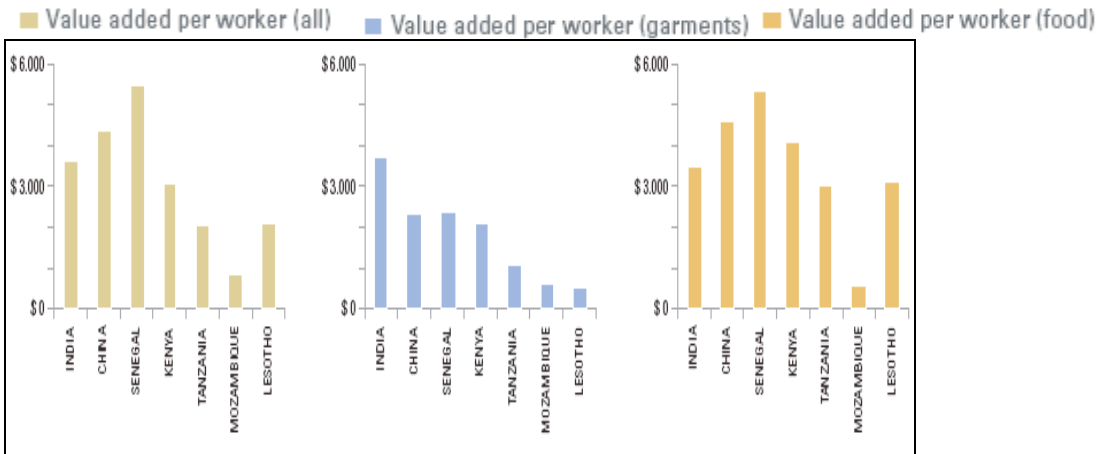
Labour and management in Africa often do not work together. Instead, they tend to focus on disagreements over distribution of wealth rather than the cooperation needed to create wealth. Labour productivity in Africa is generally low and in some cases there is even a perception that increased productivity would be to the disadvantage of some groups that are already wealthy, that is employers and the owners of capital. It is therefore not surprising that efforts to improve productivity in Africa have been slow to develop. Low labour productivity combined with the current moderate wages translates to high labour costs. Manufacturing exporters also face: shortage of skilled workers, poor regulatory environment, poor enforcement of contract and property rights, and deficiencies in the allocation of credit and inefficient tax systems. Figures 3 and 4 show, respectively, country comparisons of labour costs and comparisons of median labour productivity for SSA economies, India and China.

Figure 3: Country comparison of labour costs as a percentage of value-added (median unit labour costs)



Note: Data are for 2002 for all countries except Mozambique and India (2001).
Source: World Bank (2005).

Figure 4: Comparison of median labour productivity



Source: World Bank (2005).

One reason for high labour costs is found in restrictive labour regulations, which limit flexibility and increase operating costs. An uneducated labour force – or more specifically a labour force that is ill equipped for production work – is another contributor. Innovation and technical progress, in conjunction with an adequately trained labour force, effectively helps foster a competitive business environment. It will be difficult for Africa to build competitive capabilities in export industry without enhancing production skills. According to Broadman et al. (2006), the shortage of skilled labour is the most significant constraint reported by the majority of firms that participated in the World Bank Africa-Asia trade information (WBAATI) business case studies. The shortage of skilled local workers is also cited by Chinese and Indian firms as one of the major constraints they face when investing in Africa. Chinese firms cope with this problem by limiting the manufacturing component of their operations in Africa. The importation of skilled labour leads to high operating costs. As an example one Chinese automobile maker operating in South Africa decided to shift from completely-knocked-down (CKD) to completely-built-up (CBU) processes in automobile manufacturing to reduce the manufacturing component of their operation in South Africa (Broadman et al., 2006). Another strategy for obtaining qualified

workers is to pay more and train more, but the first increases costs and the second, at least in the apparel and textile sector in Africa, particularly in Senegal, means firms that incur training costs often lose their best qualified employees to their competitors (Broadman et al., 2006).

Standards and Regulations

International standards and regulations increase production costs for firms seeking to export from developing countries. This follows from both technological and preference gaps vis-à-vis industrial economies. Associated with continued advances in scientific knowledge about health and environmental hazards, standards tend to change frequently and to become more and more stringent over time, making it difficult for cash-strapped and information-poor firms in developing countries to keep up. In this respect, they obviously reduce the ability of developing countries to access international product markets. Empirical evidence suggests that stringent standards can have a negative effect on trade. A study by Wilson et al. (2003), revealed that African exports of cereals will decline by 4.3% and that of nuts and dried fruits by 11% with a 10% tighter EU standard on contamination levels of aflatoxin in these products. The EU has also estimated the costs of technical standards as being equivalent to a tax of 2% of the value of goods traded (Otsuki et al., 2001).

Fixed costs of compliance with standards may affect the decision whether to export or not. Maskus, (2004) show that the higher setup costs needed to meet strict standards also increase the variability of production costs. Complying with international standards requires additional efforts that might be impossible to afford in SSA economies. As an example, Finger and Schuler (2001) show that the World Bank spent US\$82.7 million between 1991 and 1996 in Argentina on a project to assist in the implementation of sanitary and phytosanitary regulations. Equally, compliance includes not only the cost of meeting the technical requirement but also the cost of verifying that the requirement is met, known as the conformity assessment. This cost represents the largest barrier to trade competitiveness. In accomplishing standards, exporters face administrative, technical and financial burdens that can act as an entry barrier for individual suppliers (Sanchez et al., 2007). Table 2 summarizes the results of an incremental cost survey conducted by the World Bank on standards compliance as a proportion of sales by industry. Chen et al. (2004) find that technical regulations adversely affect a developing country firm's propensity to export. They also reveal that standards and testing procedures impede market entry for exporters, reducing the likelihood of exporting to multiple countries.

Table 2: Incremental cost of standards compliance

Industry	Mean	Std. dev
Bacterial and electrical equipment	2.4	4.28
Fabricated metal	11.21	25.66
Industrial machinery and equipment	1.81	2.44
Industrial or agricultural chemical	3.17	2.14
Instruments, photographic, optical, watches	0.26	4.01
Leather and leather products	1.98	-
Paper and allied products	1.28	2.49
Printer and publishing products	0.29	1.60
Processed food and tobacco	4.61	-
Rubber and plastic products	5.2	10.61
Telecommunication and terminal equipment	1.57	6.18
Textile and apparel	2.73	1.96
Transportation equipment, auto parts, dealers	4.18	6.80
Lumber, wood and furniture	0.45	8.27
Construction and construction related services	1.43	0.27

Industry	Mean	Std. dev
Primary metal and metallic ores	11.27	1.09
Miscellaneous manufactured commodities	20.89	20.48
Drug and liquor	3.67	50.51
Material	1.99	3.82
Other services	0.26	0.33
Other	4.6	-

Source: World Bank (2004).

High Taxes and Licence Costs

Taxes play an important role in the profitability of any export business. If these taxes could be reduced, exporters would likely invest more in export productive activities. It has been observed that total tax rates are lowest in the Middle East and North Africa (at 40.8% of profits), followed by East Asia and Pacific (42.2%), and highest in sub-Saharan Africa where a company on average pays 71.2% of its profits as tax and (Table 3). Time taken to pay taxes is lowest (202.9 hours) in OECD countries. In sub-Saharan Africa a company on average spends 336 hours to pay taxes, in Europe and Central Asia 423 hours, and in East Asia and Pacific 290.4 hours. It takes a company 15.3 payments in OECD, 41.0 payments in SSA, and 29.8 payments in East Asia and Pacific. Time spent with tax officials is part of the burden companies face in paying taxes.

Table 3: The main indicators of paying taxes

Region or economic group	Payments (numbers)	Time (hours)	Total tax rate (% of profit)
East Asia & Pacific	29.8	290.4	42.2
Europe & Central Asia	50.0	423.0	56.0
Latin America & Caribbean	41.3	430.5	49.1
Middle East & North Africa	28.9	236.6	40.8
OECD	15.3	202.9	47.8
South Asia	30.1	304.6	45.1
Sub-Saharan Africa	41.0	336.4	71.2

Source: World Bank (2007).

Structural and Storage Costs

Structural costs that hinder export competitiveness involve such aspects as farm facility maintenance or repair and maintenance of other manufacturing equipment. The proportion of structural costs to total costs of production is relatively high in Africa. For example, in strong performers such as China, India, Nicaragua, Bangladesh, Morocco and Senegal, the combination of energy and indirect costs is 13–15% of total costs, around half the level of labour costs (Ndulu et al., 2007).

Dollar-for-dollar, investment in African countries yields significantly less expansion of productive capacity because prices of capital goods are 70% higher than in OECD and Southeast Asian countries (Sala-i-Martin et al., 2003). Amjadi and Yeats (1995) demonstrate that relatively high transportation costs, especially for processed products, often place African exporters at a serious competitive disadvantage.

Storage is an important cost for many products, especially in the horticultural trade. The main purpose of storage is to extend the availability of produce over a longer period than if it were sold immediately after harvest. The assumption behind all commercial storage is that the price of the produce will rise sufficiently to cover the costs of storage. Such costs will depend not only on the costs of building and operating the store but also on the cost of capital used to purchase the

produce that is stored. If a store is used to its maximum capacity throughout the year, costs will obviously be much less than if it is used for a few months and is, even then, kept half empty.

Horticultural produce in Africa is mostly collected by middlemen supplying exporters directly or through other middlemen. Except for government extension agents these buyers generally lack the capacity to provide technical assistance, nor can they provide traceability – meaning that crops may be rejected by exporters because of insufficient quality or unknown origin or lack of a record of pesticide treatment. The lack of access to cold stores in production areas forces producers to sell at the buyers' prices. In Cameroon the number of middlemen involved in marketing of bananas and the different extra expenditures (market fees, transport costs, police inspections during transport, etc.) affect producer prices, which can sometimes be more than 50% lower than the retail price.

Investment Climate

Potential investors, both foreign and domestic, face a number of discouraging features of life in sub-Saharan Africa. The perceived (and often actual) high risk of conflict undermines confidence in the security of their assets. High price instability makes it difficult to come to a reasonable projection of profitability. Exchange controls imposed to help a country maintain its forex reserves bring the risk of not being able to repatriate profits (Ndulu et al., 2007). Capital flight – the movement of financial wealth out of Africa – is an indication of the dearth of attractive investment opportunities on the continent. It is estimated that in 1990, Africans held as much as US\$360 billion, or 40% of their wealth, outside the region in search of safer havens and higher returns (Collier and Hoeffler, 2000). This compares with just 6% of East Asian wealth and 10% of Latin American wealth being held outside of their respective regions.

The challenges are manifest – location in the disease-prone tropics, geographic isolation and fragmentation, a history that is fraught with conflict-motivating ethnic polarization, as well as a delayed demographic transition. The tropical location affects the incidence of disease, which erodes work stamina, and the prevalence of agricultural pests, which contributes to production costs. The fragmentation of peoples with common culture and language – one of the results of the “Rush for Africa” at the start of the colonial era, combined with geographic marginalization makes development relatively more expensive and slower. Easterly and Levine (2003) and Acemoglu and Robinson (2001) find that many of these effects are mediated or exacerbated by the quality of institutions.

The Asian Onslaught – Impact of China and India on Africa's trade competitiveness

The ascendance of China and India poses a threat to SSA economies exporting same products, as the two Asian giants crowd out the smaller African countries. First, SSA stands to lose because of the stiffer export competition in third world country markets, which lowers prices and ultimately reduces their market share. A good example is the case of textiles and the African Growth and Opportunity Act (AGOA). When AGOA came into effect in 2000, a number of Chinese textile firms established themselves in Africa, first to exploit the preferential access to the US market and second to circumvent the barriers the Multifibre Agreement (MFA) had imposed on them (Mwega, 2007). The flip side of this is the significant *import* competition that arises in third world country markets as prices of imported goods are pushed upward (Oyejide, 2007). Table 4 shows threats and opportunities facing Africa that are caused by the growing Asian interest. “Competitive” effects can be direct or indirect, but nevertheless have potential to threaten Africa's future economic development. The particular threat is to Africa's nascent manufacturing sector because China has predominantly imported only a limited number of products – mostly oil,

minerals and precious metals – and those from a small number of sub-Saharan countries. In return, it primarily exports to Africa manufactured goods, most of them final consumption goods.

Table 4: Kaplinsky’s synthetic view of the China–Africa trade channel

		Direct	Indirect
Trade	Complementary	<ul style="list-style-type: none"> ▪ Inputs for industries ▪ Cheap consumer goods 	<ul style="list-style-type: none"> ▪ Higher global prices for exports
	Competitive	<ul style="list-style-type: none"> ▪ Displacement of existing and potential local producers by cheaper Chinese producers 	<ul style="list-style-type: none"> ▪ Competition in external markets – falling prices and market shares

Source: Kaplinsky et al. (2006).

Distribution Constraints

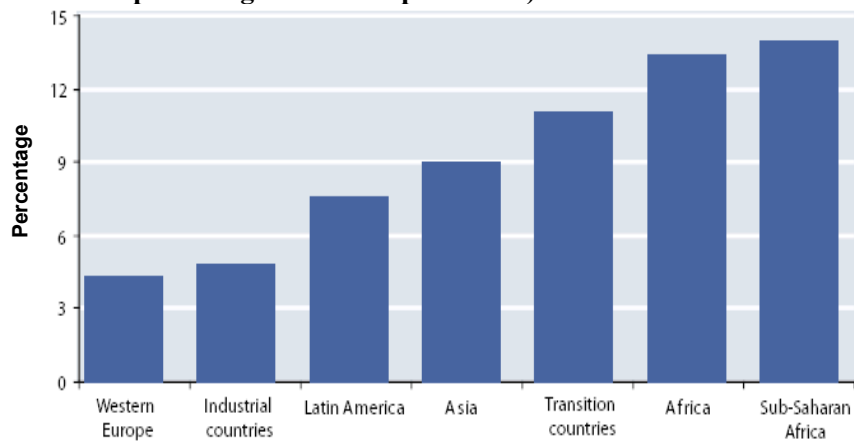
One of the policy makers participating in AERC’s eighth Senior Policy Seminar observed that importing grain into Dar es Salaam from the United States was easier than moving it from another part of Tanzania – much less bringing it in from a neighbouring country. Why? Because of the poor infrastructure in the region (AERC, 2007). The most immediate source of excessive costs of doing business in sub-Saharan Africa relates to infrastructure. The poor quality of power services is the leading bottleneck, causing interruptions in production and thus revenue losses (owning generator only adds to production costs). The limited availability of communication networks adds to the costs of marketing opportunities. Transportation costs are excessively high in Africa because of the dilapidated road network and the poor quality of port and aviation services. It is also clear that the quality of management of infrastructure systems also leads to high transaction costs. These and other infrastructure issues are discussed in more detail in the following paragraphs.

Transport Costs

The key bottlenecks in the transport of goods from the factory/farm-gate to the port of exit are numerous. Among them are inefficient trucking and transport services, aggressive, obstructive customs authorities and procedures, inefficient cross-border transit procedures, and an underdeveloped transport intermediary sector. Even earlier in the supply chain are problems of low export volume, which leads to long shipping times, potentially reduces product quality and forces costly inventory accumulation.

Nominal freight rates on African exports are normally much higher than those on similar goods shipped from outside the region (AfDB, 1999). For example, freight charges on African exports to the United States as a proportion of c.i.f. value are on average approximately 20% higher than for comparable goods from other low-income countries. The median transport cost for intra-African trade, at US\$7,600 for a 40-foot container, is almost the same as for imports from the rest of the world – involving much longer distances – and \$2,000 more than for intraregional trade in other developing regions (Figure 4).

Figure 4: Transport costs by regional and country groupings, 2000 (freight cost as a percentage of total import value)



Note: The transport cost rate is the ratio of transport costs as a percentage of the value of imports.
Source: UNECA (2004).

Road Transport

SSA’s high road transport costs are generally attributed to low volumes of cargo, imbalanced trade flows between origins and destinations, and long travel times. Moreover, there are serious impediments at border posts because of the lack of harmonization in customs procedures. It should also be pointed out that most roads in Africa were not constructed to carry the heavy goods vehicles that are now commonly used, nor do authorities always enforce axle load limits. The excessive axle loads of large container-carrying vehicles can damage road surfaces, which leads to slow movement of goods and pushes the costs of transport even higher.

Ease of transport between production and consumption areas is another factor that can enable a strong production response. While good roads and short distances are a plus to horticultural production, Africa’s poor roads and long distances prevent the expansion of marketing networks. In Chad, for example, intra regional export of onion and garlic from Niger to Côte d’Ivoire is impeded by long distances and poor roads.

The first step to quality control – and greater profits – for horticultural products can be gained by refrigerating the products directly after harvesting. The produce should be transported to packing facilities in refrigerated trucks, then cooled, washed with chlorinated water, graded, and packed under controlled humidity and temperature. But facilities like cold storage chambers and refrigerated trucks require considerable investment and may be beyond the reach of African entrepreneurs, thus negatively affecting product quality. Ghana, for example, incurs an average loss of 20–50% of the total produce because of the lack of closed refrigerator trucks. Photograph 1 illustrates a typical pineapple transport truck in Ghana, stalled in its attempt to move from the farm gate to the “Dole boat” for export.



Photograph 1: Typical pineapple transport in Ghana

Inefficient Vehicle Use and Management

Inefficiency of transport services is manifested in several ways. High vehicle prices, lack of information about demand for the farm produce, existence of transport cartels, poor operating

practices, inadequate routine maintenance and unnecessarily fast driving are some of the issues. Together they lead to high vehicle operating costs and low vehicle utilization. Transport operators usually pass their high operating costs to consumers by raising fares. In a reinforcing feedback loop, fares go up to offset low revenues because of low vehicle utilization.

Table 5 shows that the vehicle operating cost per kilometre for two-axle trucks in Tanzania (50.1 US cents) is substantially higher than in Pakistan (21.0 cents) or Indonesia (19.7 cents). Higher fuel prices, maintenance costs, tire costs and overheads in Tanzania all help to explain the wide margin of difference.

Table 5: Estimated composition of operating costs for two-axle trucks, 1995 (US cents/km)

	Tanzania	Pakistan	Indonesia
Capital costs	10.6	1.8	2.7
Fuel	15.4	9.3	5.8
Crew	2.7	3.2	3.2
Oil	1.0	1.0	0.7
Maintenance	6.1	2.2	4.3
Tires	7.8	1.1	1.2
Overhead	6.5	2.4	1.8
Total	50.1	21.0	19.7

Source: Ellis and Hine (1998).

Levels of vehicle utilization are extremely important in determining the burden of vehicle capital costs and interest repayments. There is a significant difference between utilization in Africa and Asia. For example, the average annual utilization of two- and three-axle trucks in Tanzania was found to be 60,000 km compared to 80,000 km for Indonesia (Hine et al., 1997). According to other studies reported by Rizet and Hine (1993), annual utilization in Pakistan was found to be 123,000 km compared with an average of 50,000 km in the SSA countries of Cameroon, Côte d'Ivoire and Mali. Vehicles in the three SSA countries travelled empty for 34% of their journeys, compared with only 12% running empty in Pakistan. In this context, a national network of transport brokers who match loads with available vehicles could reduce empty running and increase vehicle utilization, and hence reduce transaction costs.

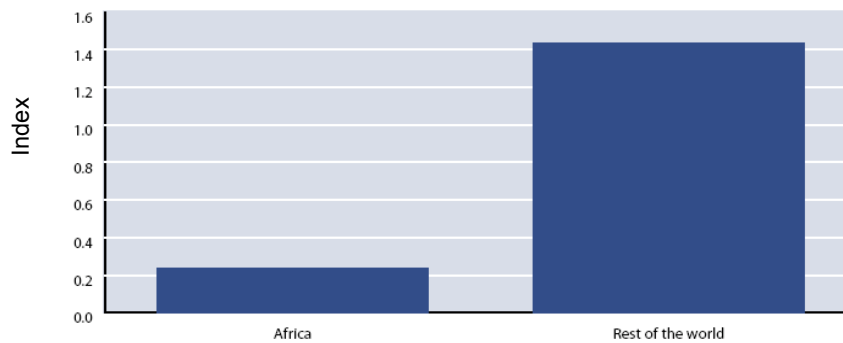
The Challenges to Landlocked Countries

Landlocked countries may be especially disadvantaged in terms of transport costs. The ability of landlocked countries to trade relies on the existence of efficient and easily accessible transit corridors. In addition to their own infrastructure, landlocked economies need good roads and railways in their neighbouring countries. Africa has 15 landlocked countries, whose distance to the sea ranges from 220 km for Swaziland to 1,735 km for Chad. It is estimated that these countries incur 50% higher transport costs than countries with coastal access (Broadman et al., 2006). Goods transported to and from landlocked countries generally must travel longer distances, which may entail varying road conditions, multiple border crossings and greater opportunity for breakdown (including product losses).

The generally low density and poor quality of infrastructure on the continent tends to aggravate these disadvantages further. Weak infrastructure imposes a large burden on competitiveness, not just against the average coastal economy but also against the average landlocked country in other continents (Figure 5). For example, the transit countries of the Czech Republic are Austria,

Germany and Italy. For these three countries the average index of infrastructure¹ is 3.3. In Africa, Malawi's transit circle includes Tanzania, Botswana, Mozambique, South Africa, Zimbabwe and Zambia, all with an average transit infrastructure density of 0.22. Burundi's circle consists of Democratic Republic of Congo, Tanzania, Rwanda, Uganda, and Kenya, whose average value of infrastructure density does not reach 0.14.

Figure 5: Infrastructure density in transit countries, a comparison between Africa and the rest of the world (index of infrastructure density)



Source: UNECA (2004).

Maritime Transport

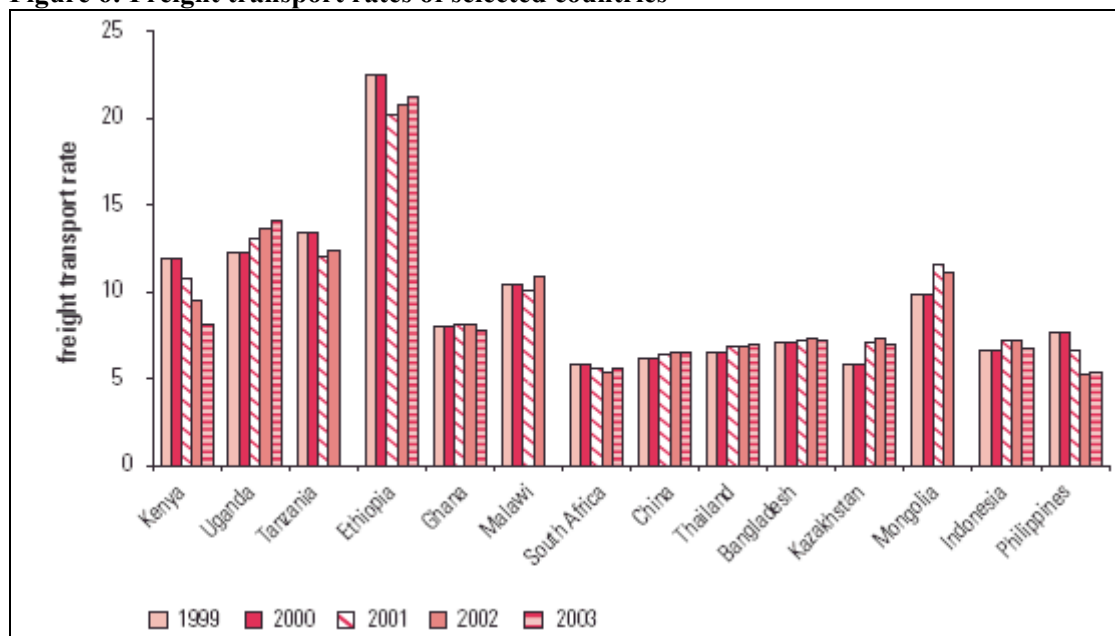
Port related bottlenecks include poor rail-to-road interfaces, inadequate shunting locomotives, insufficient cargo handling equipment, absence of reliable shipper information and port congestion. These are all common in African ports – increasing time needed to get cargo in and out of the port and pushing up costs. Maritime shipment in Africa seems to be three times as costly as road shipment; this is due in part to the monopolized (i.e., generally government run) port authorities and in part to inefficient and cumbersome customs procedures. The average port turnaround time in South Africa tends to be up to five times longer than that of China. Sending products from South Africa to Angola is as expensive as sending products from China to Angola. One Ghanaian firm reported that shipping costs and tariffs within ECOWAS are very expensive – costing \$1,000 to send a container from Accra to Lagos (Broadman et al., 2006). Insurance fees are around 2% of the value of trade and represent around 15% of total maritime charges. The conditions of many African countries, including socio-political instability and poor infrastructure, together with the long distances that separate such countries from international markets, imply high average insurance premiums, which have the effect of discouraging trade.

Air Cargo

Another obstacle to SSA exports is that air transport services are inefficient and freight charges high. Given the low cargo shipping volumes, companies in Africa tend to rely on the freight capacity of passenger airlines instead of chartered freighters or cargo planes. This lowers the efficiency of air cargo transport. Figure 6 shows the freight transport rates of selected countries. It is clear from the figure that in all years African countries except South Africa had higher freight rates than Asian countries with the exception of Mongolia.

¹ The index of infrastructure density is the average density of road and rail networks; airports with paved runways; and telephone lines. The index is computed from a sample of African countries and other countries of the world and ranges from 0.03 to 7.5, with an average of 1.15. The higher the index, the denser the infrastructure network (UNECA, 2004).

Figure 6: Freight transport rates of selected countries



Note: Freight transport rate is defined as the ratio of the sum of freight credit, freight debit, other transportation services credit, insurance credit and insurance debit to the sum of merchandise exports and merchandise imports.

Source: Broadman et al. (2006).

Although countries in Africa differ greatly, a large percentage of the total lift capacity in sub-Saharan African countries is handled by passenger airlines, either through national carriers (such as South African Airlines, Kenya Airways or Air Senegal) or through the carriers of countries that have signed bilateral air service agreements. Reliance on passenger airlines to carry the majority of cargo has several drawbacks.

Cargo is often left behind in favour of passenger and baggage carriage because of competition for space. Cargo generally flows one way and as a result, airlines are subject to the same economics as maritime carriers in the case of empty backhauls, which leads to highly divergent inbound and outbound cargo rates. Table 6 shows cargo rates according to the Air Cargo Tariff (TACT) list published quarterly by the International Air Transport Association. The TACT rates indicate clear differences for inbound and outbound rate structures. The cost for 400 kg from Singapore to Dakar, Senegal, is \$19.78 per kilo, while the rate for Dakar to Singapore is \$16.43 per kilo.

Table 6: Inbound and outbound air cargo rates (US\$ per kilo)

Destination	Origin						
	Dar es Salaam	Dakar	Hanoi	New York	Singapore	Amsterdam	La Paz
Dar es Salaam	-	8.77	10.08	11.98	11.12	13.35	14.42
Dakar	5.93	-	16.37	8.01	19.78	7.96	9.15
Hanoi	7.51	16.20	-	5.94	3.06	17.77	10.88
New York	5.20	4.91	6.94	-	7.49	3.87	2.99
Singapore	6.52	16.43	2.97	4.88	-	4.52	9.83
Amsterdam	3.61	4.75	10.55	2.49	4.74	-	6.76
La Paz	15.10	11.23	12.58	5.66	17.44	11.26	-

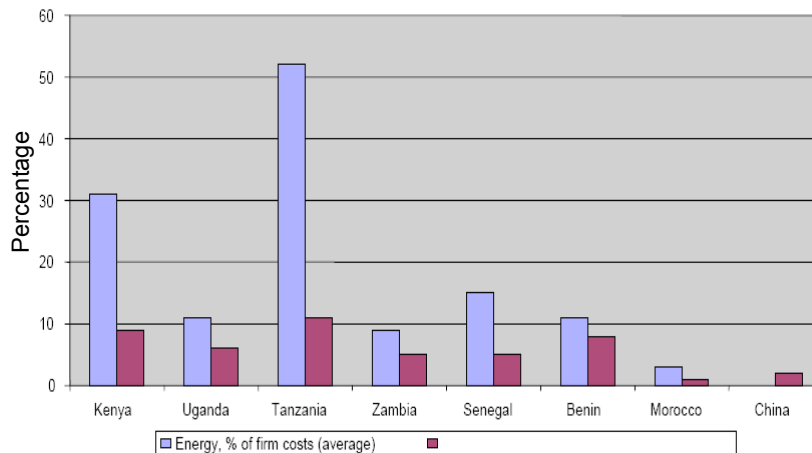
Source: Carana (2003).

For horticultural products, airports should have separate intake and dispatch cold stores, with the central grading and packing area also having refrigeration or being subjected to lower temperatures. (The assumption here – and it is not always met in Africa – is that the products have been reduced in temperature before they leave the farm gate and the cold chain is maintained with refrigerated trucks.) Time taken for grading and packing must be kept to a minimum to prevent products increasing in temperature during this process. The more sophisticated grading sheds allow for the product to be packed into airline containers in the dispatch cold store and the containers transported to the airport. This process considerably reduces handling and allows the exporter to pack carefully with minimal damage and discoloration. Wide diversions from the ideal handling system are found in different African countries. Whilst Zimbabwe makes the most use of cold stores and suitable transport, horticultural exporters in Malawi and Tanzania, as in many other African countries, do not have a cold store on the farm and the first refrigeration takes place at the airport. Growers in Lusaka are building their own refrigeration facility (FAO, 2006).

Energy Costs

Problems in SSA’s energy sector are legion – and legendary. Typically they are due to government failures and state owned monopolies, which have generated a host of inefficiencies. In Zambia, it takes an average of 174 days to get connected to a power grid, compared with 18 days in China (Ndulu et al., 2007). The Kenya Power and Lighting Company (KPLC) and Tanzania Electricity Supply Company (TANESCO) are often derisively referred to as Paraffin Lanterns and Candles companies because of frequent outages and low power episodes. The performance deficiencies in this sector impose different kinds of costs on firms. The first and most obvious cost associated with power is output loss, which was 9% in Kenya compared with 2% in China. As Adenikinju (2005) and Figure 7 show, this cost is also high in other African countries.

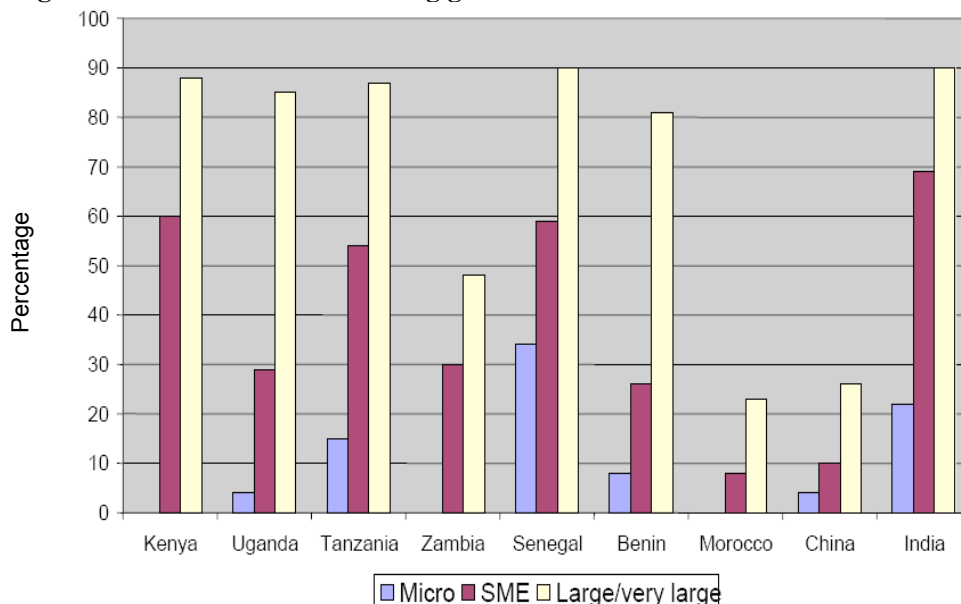
Figure 7: Energy costs and power outages



Source: Ndulu et al. (2007).

The other cost is the need for backup facilities. More than half (55%) of Tanzanian firms had generators, compared with 27% of firms in China (Ndulu et al., 2007). Individual generators are an inefficient means of providing power and their cost is prohibitively high for small firms. Thus the burden of power failures falls disproportionately on small firms, as they are unable to compensate for fluctuations in power supply. Figure 8 shows that large enterprises are more likely to own generators than small firms in all countries.

Figure 8: Shares of firms owning generators



Source: Ndulu et al. (2007).

Information Technology and Communication Costs

High costs of communications, whether through fixed-line telephony, cellular networks or Internet monopolies, increase the costs of doing business. For example, in 2003 Internet access in a sample of African countries cost an average of \$78 per month, while the cost in a set of other developing countries was \$19.40. Put differently, the cost of Internet access per month in 2003 was almost three times the monthly GNI per capita in the SSA, compared with one-third of monthly GNI per capita in other developing countries and just 1% of monthly GNI per capita in OECD countries.

In 2002, there were only 1.5 million Internet users in all of SSA, half of whom were in South Africa (Ndulu et al., 2007). Table 7 shows that SSA has the lowest percentage (24%) of firms using the Web in interaction with clients and suppliers; perhaps one reason for this is that it is so hard to get a land-line telephone. According to the table, obtaining a mainline telephone connection takes an average of 53.13 days in SSA, slightly less than in South Asia (53.85), but several multiples of the 7.91 days required in OECD countries. Is it coincidence that OECD countries also have the highest percentage (80%) of firms using the Web in interaction with clients and suppliers? Surprisingly, however, at 25% of firms, East Asia and Pacific countries rank only just above SSA in the number of companies using the Web in interaction with clients and suppliers; in this region it takes 9.32 days to obtain a mainline telephone connection.

Table 7: Telephone connection times and firms' use of the Web in interaction with clients/suppliers details

Region or economic group	Days to obtain a mainline telephone connection (days)	Firms using the Web in interaction with clients/suppliers (%)
East Asia & Pacific	9.32	25.15
Europe & Central Asia	10.30	56.74

Region or economic group	Days to obtain a mainline telephone connection (days)	Firms using the Web in interaction with clients/suppliers (%)
Latin America & Caribbean	37.47	42.80
Middle East & North Africa	51.46	32.76
OECD	7.91	80.20
South Asia	53.85	29.16
Sub-Saharan Africa	53.13	24.80

Source: World Bank (2007).

The slow pace of change toward adopting information and communication technology (ICT) has been caused by the lack of adequate funds to purchase relevant hardware, lack of a critical mass of skilled people to operate the systems, possibly a fear of change, and high costs of access and the fear of job losses. It is also the case that governments are often reluctant to let go of their fixed-line telephone monopolies and open the sector to competition. Africa therefore, is not able to use ICT effectively for marketing and trade transactions like on-line orders, payments and cargo tracking.

Unofficial Payments, Crime and Corruption Costs

In SSA, doing business may require making unofficial payments to clear red tape, or gifts to government inspectors or to officials involved in issuing government contracts. Corruption at border crossings and frequent unauthorized collections by police at roadblocks on main highways contribute to costs and reduce competitiveness on world markets of locally produced goods.

As shown in Table 8, the amount of unofficial payments as a percentage of sales in SSA is about the same as in other developing regions, and the number of firms expected to give gifts in meetings with tax inspectors is comparatively quite low. The value of gifts expected to secure a government contract as a percentage of the contract, however, is considerably higher in SSA. A typical entrepreneur in the East Asia/Pacific region, for example, may pay 1.81% of sales in unofficial payments to get things done and shell out 1.82% of the contract value in gifts to secure government contracts. More than a third of firms (33.59%) reported that they were expected to give gifts in meetings with tax inspectors. Meanwhile, in Europe and Central Asia, 44.54% of firms are expected to give gifts in meetings with tax inspectors, while an entrepreneur may pay 1.03% unofficial payments to get things done and 1.47% of the contract value in gifts to secure a government contract. In contrast, an entrepreneur in sub-Saharan Africa may pay 1.78% of sales in unofficial payments to get things done and may pay 4.03% a value of gifts to secure government contract. Giving gifts in meetings with tax inspectors is expected of 18.76% of SSA firms (World Bank, 2007).

Table 8: Unofficial payments for different world regions

Region or economic group	Unofficial payments for typical firms to get things done (% of sales)	Firms expected to give gifts in meetings with tax inspectors (%)	Value of gift expected to secure government contract (% of contract)
East Asia & Pacific	1.81	33.59	1.82
Europe & Central Asia	1.03	44.54	1.47
Latin America & Caribbean	1.49	6.83	2.94
Middle East & North	2.72	40.09	1.30

Region or economic group	Unofficial payments for typical firms to get things done (% of sales)	Firms expected to give gifts in meetings with tax inspectors (%)	Value of gift expected to secure government contract (% of contract)
Africa			
OECD	0.13	28.26	0.55
South Asia	2.02	46.94	3.32
Sub-Saharan Africa	1.78	18.76	4.03

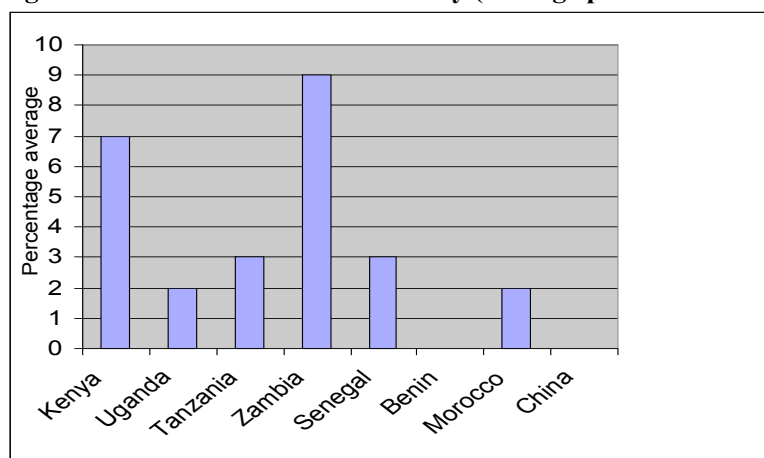
Source: World Bank (2007).

Police roadblocks pose a serious challenge to trade in Africa as they cause both delays and increased costs. The roadblocks themselves may be legitimate means for monitoring the movement of transit goods, for example, or the axle weights of vehicles. But they are inconvenient, slow the movement of goods and may serve as opportunities for extortion, which adds considerably to costs of doing business even as it deprives the exchequer of intended revenue.

A study on transit transport in ECOWAS in 1999 documented the enormous amounts of time and money that are wasted each year at police checkpoints in the region (ECOWAS, 2003). Cameroon alone reported 47 roadblocks between Douala and Bertoua, a distance of about 500 km (*The Economist*, 2002). Overall, lost revenue was estimated at 2 billion CFA. The resultant loss of time and increase in vehicle operating costs from roadblocks are considerable. Added to the inconvenience is the risk of goods being diverted from their intended destination. In some cases, containers are looted directly on the truck or train on which they are being transported.

The cost of crime and security as a percentage of sales is high in most countries of sub-Saharan Africa, particularly in Zambia and Kenya, where these numbers are 7% and 9%, respectively (Ndulu et al., 2007). In Benin, the cost of such crime is negligible, as it is in China (Figure 9).

Figure 9: Cost of crime and security (average per cent of sales)



Source: Ndulu et al. (2007)

Trade Financing Related Constraints

The absence of an adequate trade finance infrastructure is, in effect, equivalent to a barrier to trade. Limited access to financing, high costs, and lack of insurance or guarantees are likely to

hinder the trade competitiveness and export potential of any economy, and particularly that of individual small and medium-sized enterprises (SMEs). In SSA, the most important challenge for traders involved in the export business is securing finance so that the transaction can actually take place. The faster and easier the process of financing an international transaction, the more likely that trade will be facilitated.

Entrepreneurs' Access to Credit

Access to financing for SSA entrepreneurs tends to be restricted because banks are not willing to lend to them. Where loans are available, they are often inadequate to cover large export orders and are costly in terms of interest rates, time and legal fees.

High interest spreads generally indicate the presence of high operating costs, a poorly performing loan portfolio, a weakly competitive banking sector and a weak lending environment. Large interest spreads also imply that commercial banks charge high interest rates on disbursed loans so as to compensate for a low volume of loan disbursement (McKinley, 2005). High profit margins on lending reflect high risk premiums, weak market infrastructure, weak enforcement of creditor rights and weak intensity of competition in international trade (Eihák and Podpiera, 2005). Available data suggest that the interest spread has been on the increase in African countries, while it has decreased on average in the group of other developing countries. The data also show that the interest spread remained consistently larger in African countries than in other developing countries (Table 9).

Table 9: Lending rates and interest rate spreads in Africa and other developing countries

Country	Lending interest rate			Interest rate spread		
	(a)	(b)	(b-a)	(a)	(b)	(b-a)
Bangladesh	15.5	15.8	0.4	4.8	7.6	2.8
Cape Verde	10.0	12.7	2.7	6.0	8.2	2.2
Central Africa Republic	18.0	19.7	1.7	10.4	14.7	4.3
Chad	18.0	19.7	1.7	10.4	14.7	4.3
Equatorial Guinea	18.0	19.7	1.7	10.4	14.7	4.3
Nepal	14.4	8.6	-5.9	0.6	3.2	2.6
Ethiopia	8.0	9.6	1.1	4.7	4.8	0.1
Lesotho	18.6	16.7	-1.9	7.5	11.7	4.2
Madagascar	25.3	25.3	0.0	5.1	12.7	7.6
Tanzania	31.0	18.2	-12.8	7.8	13.6	5.8
Zambia	67.7	42.7	-25.0	32.2	20.5	-11.7

Note: Averages are simple averages based on a group of 23 LDCs and 64 other developing countries.

Source: UNCTAD secretariat estimates based on World Bank, World Development Indicators 2005, CD-ROM.

Exporters also need guarantees from their own local banks as an additional source of security. Additional costs may be generated by this requirement since banks may be reluctant to assume the risks. Some of this is due to the banks' inability to gather accurate information about prospective loan clients. Banks need information on the value of the borrower's collateral and their credit history, and the legal system must provide adequate protection for creditors. While virtually all developed countries have well established credit bureaus that contain information on almost all their populations, SSA countries like Cameroon, Ghana and Nigeria have credit histories for less than 1% of adults (World Bank, 2005).

Thus a big hurdle in SSA is the need for guarantees to demonstrate to the bank that the borrower is creditworthy. This means that prospective borrowers in SSA need to put up, on average, 140%

of the total loan amount as collateral. Banks in South Asia, by contrast, expect 95.52% (Table 10). Local entrepreneurs in SSA therefore often have to use their own personal property as collateral to secure loans and other credit and they are therefore reluctant to take risks that may result in personal loss. This risk averse behaviour means SSA firms are often not in a position to take advantage of opportunities presented by changes in the market. Additionally, the use of personal property (which is often not sizeable) means that the loans in turn are fairly small and hence in most cases cannot possibly cover a significant export drive to lower both production and marketing costs.

Table 10: Financial requirement for investment, credit and collateral in different regions

Region or economic group	Internal finance for investment (%)	Bank finance for investment (%)	Informal finance for investment (%)	Supplier credit financing (%)	Value of collateral needed for a loan (% of the loan amount)	Loans requiring collateral (%)
East Asia & Pacific	33.81	23.85	11.58	6.21	94.06	78.58
Europe & Central Asia	70.51	10.58	4.72	6.28	143.11	82.34
Latin America & Caribbean	54.67	21.15	4.20	14.17	130.63	73.24
OECD	60.26	20.03	1.47	8.69	127.38	67.91
South Asia	56.41	19.79	6.74	6.61	95.52	77.39
Sub-Saharan Africa	68.98	18.47	3.56	12.04	140.39	85.16

Source: World Bank (2007).

Banks' Financial Capacity

A common problem faced by several SSA economies is that many banks have inadequate capital and foreign exchange reserves, making their ability to back documentary credits questionable. Empirical evidence indicates that restrictions on current payments and transfers (exchange controls) and on capital account transactions (capital controls) constitute a notable non-tariff barrier to trade (Tamirisa, 1999). The effect of capital controls appears to be particularly strong for developing countries, tending to limit business opportunities for hedging foreign exchange risks, financing trade, and managing assets and liabilities. Exchange controls can reduce trade by rationing the foreign exchange available for transactions. Allowing internationally reputable banks to operate in the country is one way to address this problem.

Procedural Roadblocks

Inefficient and cumbersome payment and credit arrangements, as well as costly insurance and customs security fees, impede rather than facilitate trade. In most developing countries, international trade is performed on the basis of traditional commercial practice: exports are made on a "free on board" (f.o.b.) basis and imports on a "cost, insurance and freight" (c.i.f.) basis. Those who export tend to prefer selling their products on departure instead of taking an aggressive marketing position by selling on delivery terms. Customs security is one of the major difficulties in freight transit between countries, a situation that can involve a multitude of financial guarantees and mechanisms to ensure that goods in transit do not enter the transit country market without the necessary taxes and customs duties being paid. Guarantee payments represent a high cost for transport operators.

The requirements for a letter of credit (L/C) vary considerably throughout the world, the more difficult cases being associated with developing countries. For example, a credit from one of

those countries could well be expected to consist of four pages of requirements, which must be strictly adhered to and are often contradictory. Research in the United Kingdom has indicated that in over 50% of cases, the documents that had to be presented to secure settlement were rejected on first presentation because of defects or errors, which made them unacceptable according to the terms of credit. Not surprisingly, this was found to be due largely to reliance on manual processing and the rewriting or re-keying of information, reflecting the situation African traders normally find themselves in.

Other Financial System Hurdles

In addition to traditional financing costs, traders may incur additional expense to insure themselves (and their customers) against the risks associated with a particular transaction. Indeed, risks of non-payment or payment delays associated with an international transaction are often much higher than with domestic transactions. It is suggested that risk management instruments such as export credit insurance and guarantees be used to provide the protection needed for firms to engage in international trade.

Bankruptcy laws are a further hindrance to the availability of credit. In some developed countries such as Ireland and Japan it takes less than six months to conclude bankruptcy proceedings, but the process can take ten years in some developing countries (Manduna, 2005). Additionally, in developed countries such as Finland, the Netherlands and Singapore, resolving an insolvency costs less than 1% of the value of the estate whereas in SSA countries such as Sierra Leone and Chad it can equal up to half of the estate value.

Unstable macroeconomic environments push the high costs of borrowing even higher, particularly when annual inflation rates are also high. In addition to problems with financing, exporters also face commercial or political risks. Commercial risk arises from factors like the non-acceptance of goods by buyers, the failure of buyers to pay, and the failure of foreign banks to honour documentary credits leading to losses on sales and less profit.

Contract Enforcement

Costs involved with enforcing contracts originating from a dispute about a sale of goods involve the time, court and attorney fees, and number of procedures required from the moment the plaintiff files the lawsuit until actual payment. In SSA these costs are equivalent to a big percentage of the value of the debt. For example, a contract dispute in OECD countries requires an average of 22.2 procedures, 351.2 calendar days and 11.2% of the debt in fees. A similar action in the East Asia and Pacific region can take 31.5 procedures, 477.3 calendar days and fees in the amount of 52.7% of the debt (Table 11). In SSA countries, however, the process requires 38.1 procedures, 581.1 calendar days and 42.2% of the debt from the moment the plaintiff files a lawsuit in court until the moment of payment (Table 11).

Table 11: Number of procedures required for contract disputes, calendar days, and costs in court and attorney fees as a percentage of the debt value

Region or economic group	Procedures (number)	Time (days)	Cost (% of debt)
East Asia & Pacific	31.5	477.3	52.7
Europe & Central Asia	31.5	408.8	15.0
Latin America & Caribbean	39.3	641.9	23.4
Middle East & North Africa	41.6	606.1	17.7
OECD	22.2	351.2	11.2

Region or economic group	Procedures (number)	Time (days)	Cost (% of debt)
South Asia	38.7	968.9	26.4
Sub-Saharan Africa	38.1	581.1	42.2

Source: World Bank Group (2007).

Trade Facilitation Related Constraints

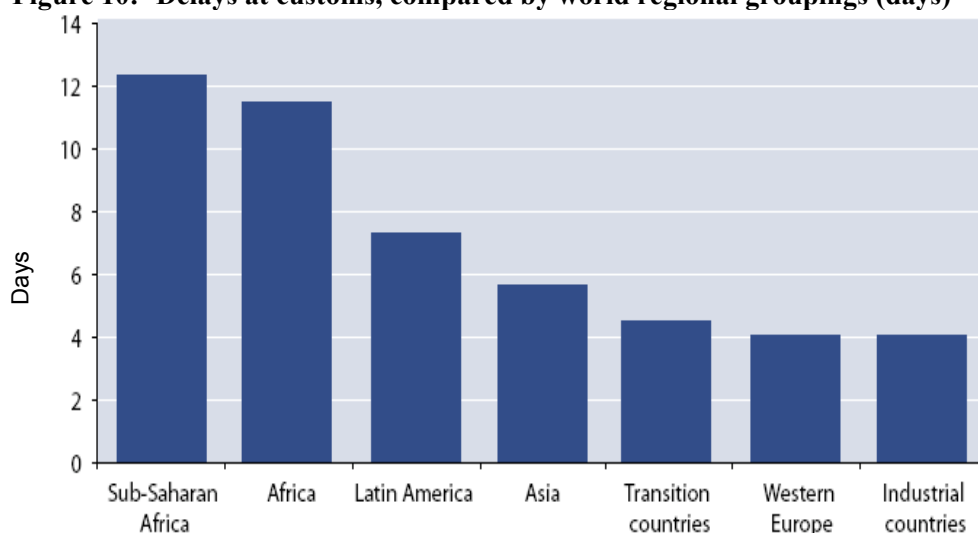
Trade facilitation involves the simplification, standardization and harmonization of procedures and associated information flows required to move goods from sellers to buyers and to make payment. Facilitating increased trade between African countries and the rest of the world is essential for Africa's future economic wellbeing, and is an objective that deserves the serious attention of governments. In recent years, the volume of goods that move across borders has increased exponentially because of changes in the international trading environment. These changes stem from the global integration of modern production systems, new forms of electronic commerce and the development of containerized transport. Most African countries have not yet benefited from the increases in international trade, however. Their poor performance is partly due to high transaction costs in trade facilitation, which contribute significantly to the cost of tradeable goods, severely impair export competitiveness and consequently undermine a country's integration into the world economy. Among the most significant of the trade facilitation constraints are customs barriers specifically and excessive rules and regulations generally.

Customs Barriers

Problems that plague customs operations in African countries include excessive documentation requirements; outdated official procedures; a lack of transparency, predictability and consistency in customs activities; and inadequate modernization of, and cooperation among, customs and other governmental agencies.

The lack or insufficient use of automated processes is a major source of delays, costs and inefficiencies (UNCTAD, 2005). Paper documents are usually presented at the border crossing, and verification of the information submitted takes place at that time. As shown in Figure 10, delays at African customs are on average longer than in the rest of the world: 12 days in countries south of the Sahara, compared with 7 in Latin America, 5.5 in Central and East Asia, and slightly more than 4 in Central and East Europe (Clark et al., 2002). Each day that goods wait at customs' warehouses adds to the cost of doing business. In Africa the longest delays are observed in Ethiopia (30 days), Cameroon (20 days), Nigeria (18 days), Malawi (17 days) and Uganda (14 days). Customs departments and other government agencies involved in trade are often inefficiently structured internally. There is frequently a lack of coordination and cooperation within customs administrations and between customs and tax authorities. Other common problems that increase transaction costs at this stage range from inadequate physical infrastructure to poor staff training and education.

Figure 10: Delays at customs, compared by world regional groupings (days)



Source: Clark et al. (2002).

Experience shows that customs administrations that increase the use of information technology have considerably reduced border-crossing time, while improving control and revenue collection functions. African governments need to take heed and simplify and speed up customs procedures by use of automated systems. Some African countries have introduced the use of the Automated System for Customs Data (ASYCUDA) and Tunisia's Trade Net is a good example of enhanced systems. The success of these and others needs to be assessed on a country-by-country basis and compared with other regions of the world.

Excessive Rules and Regulations

Procedural requirements for exporting and importing a standardized cargo of goods have a cost impact on the business of exporting. Exporters in SSA must contend with an average of 8.2 export documents (with all the inherent problems noted above). Their Latin American counterparts deal with 7.3 documents and those in East Asia and Pacific with 6.9. In OECD countries, meanwhile, exporters fill 4.8 documents. Furthermore, in SSA exporting takes 40.0 days compared with 22.2 days in Latin America, 23.9 in East Asia and Pacific, and 10.5 in OECD. The resulting costs are reflected in these numbers: SSA's average exporting costs amount to \$1,561.1 per container, compared with \$1,450.2 per container in Latin America, \$884.8 in East Asia and Pacific, and \$811 in OECD. Table 12 summarizes.

Table 12: Impact of rules and regulation on cost to export

Region or economic group	Documents for export (number)	Time for export (days)	Cost to export (US\$ per container)
East Asia & Pacific	6.9	23.9	884.8
Europe & Central Asia	7.4	29.2	1,450.2
Latin America & Caribbean	7.3	22.2	1,067.5
OECD	4.8	10.5	811.0
South Asia	8.1	34.4	1,236.0
Sub-Saharan Africa	8.2	40.0	1,561.1

Source: World Bank (2007).

It is not that African countries do not recognize the need for simplifying and harmonizing trade and transport between states. Their awareness is indicated by the plethora of national, bilateral and international agreements and protocols intended to accomplish this aim. But these agreements tend to undermine regional and subregional agreements. There are, for example, more than 100 agreements between UEMOA member states in the area of transport. Only 30% of the rules governing road transport in UEMOA countries are subregional; the other 70% are either bilateral or national. The proliferation of rules covering the same area leads to uncertainty and a multiplicity of forms and procedures – and higher costs of doing business.

Marketing Constraints

The exporters' distribution chain directly affects competitiveness for it is the efficiency of the supply chain that in the final analysis determines an enterprise's capability to compete and its long-term commercial viability. The distribution chain affects: The cost of the product (materials sourcing and production); delivery capability and performance; and the transaction cost incurred in getting the product to the market. It follows that any reduction in purchasing or logistics cost and time has a direct, predictable and often large impact on export competitiveness.

Responsible African producers work hard – and spend money – to meet international standards. They are not always compensated. Vermeulen et al. (2006) sampled citrus fruit containers and followed them through the whole supply chain from the farms in South Africa to the consumers in Europe. Their intention was to expose the behaviour of the different actors in the supply chain and obtain evidence on handling and hygiene standards. They compared their experimental observations with various relevant components of the EurepGAP control points and compliance criteria for fruit and vegetables. Their observations suggest that these standards are adequately applied to the production and handling of fruit at the farm and pack house levels. After the importing harbour in Europe, however, the story changes. The subsequent stages of the fruit supply chain are seemingly not subjected to the same strict requirements laid out for producers. The result of this is deterioration and financial losses for the producers. The evidence reveals clear parallel standards in terms of fruit safety and quality control between upstream and downstream sections of the supply chain and thus calls to question the purpose of the standards, especially these that are privately introduced (i.e., not related to WTO requirements).

Product losses are common with agricultural produce distribution. Even if nothing is actually thrown away products may lose weight and quality while in storage and on transit. It follows that one kilogram of a product sold at retail level cannot be compared with one kilogram sold by the farmer. Sometimes very high losses can be recorded, particularly for perishable fruits and vegetables. In Africa such losses will probably be highest in the main season when “gluts” of produce mean that much has to be thrown away unsold (Omosa, 2001).

The big winners from oversupply have been major transnational corporations (TNCs), whose activities are concentrated at the higher stages of the value chain. With their massive financial, information and technological advantages, TNCs can control procurement and marketing through production contracts, alliances and other mechanisms – and even restrict entry. Low input prices have enabled these firms and their associated traders to reap super-profits at the expense of poor producers. Particularly with the dismantling of state enterprises (commodity boards and *caisses de stabilisation*), poor farmers have little countervailing negotiating power. According to the International Coffee Organization (ICO, 2002), coffee-producing countries currently earn

(exports f.o.b.) just \$5.5 billion of the \$70-billion value of retail sales, compared with some \$10–12 billion of the \$30-billion value of retail sales in the early 1990s. Prices on world markets, which averaged around 120 US cents/lb in the 1980s, are now around 50 cents, the lowest in real terms for 100 years.

In distributing products across borders, transaction costs are incurred in international marketing. There are, in fact, costs to each potential party in the process of identifying appropriate trading partners in these markets. These are the costs of obtaining information about market conditions in any given foreign market (quantities and qualities desired, prevailing prices of each different quality, etc.), in addition to reciprocal costs for agents in foreign countries. Further, getting information about government regulations and other policies in both the foreign market and the home market (exchange rate policy, exchange restrictions, tariff and non-tariff barriers, health and environmental regulations) are a cost. Collecting this information in and of itself poses a big hurdle to SSA's exporters, especially those in countries with limited and costly access to the Internet. Meeting requirements can be even more difficult because implementation of the rules in actual practice and knowledge of the official documents is far from sufficient.

Even if an exporter has all the right information about all the relevant factors in a particular market at one point in time, the rapidity of change undermines the adequacy of his information about relevant future conditions in that market. Another such factor is the asymmetry of information that characterizes many of the relationships, actual or potential, among the different agents. As is well-known, information asymmetries give rise to problems of adverse selection and moral hazard, and such asymmetries are likely to arise simultaneously in several different components of transaction costs. For example, at the level of rules and regulations, countries may want the conditions to look different than they really are, or be unwilling to enforce existing laws. Likewise, the agents charged with the responsibility of implementing the rules may have little incentive to do so, and indeed may have the incentive to leave the interpretation of these rules sufficiently ambiguous as to generate rents for themselves.

Besides all these problems, information costs and enforcement costs are subject to economies of scale, economies of scope and externalities. The externalities imply that the incentives for investing in such information and in adequate enforcement mechanisms and insurance may well be insufficient (because their benefits leak out to others). The economies of scale and of scope imply that although there may well be a role for intermediaries specializing in the production of these relevant services, competitive markets for such services may not exist.

Tackling Transaction Costs in the Country Case Studies

In the preceding discussions we considered in a relatively general way some of the reasons for Africa's high transaction costs. We have demonstrated that Africa, collectively, needs to create a business climate characterized by smoothly operating markets and accessible, efficient, transparent and accountable public and private sector institutions. Africa, collectively, requires a conducive regulatory environment, efficient trade procedures, a good transport, information and communication infrastructure, and a skilled and productive workforce. The continent must also improve access to capital and technology and to competitively priced business support services. It must, as well, reduce barriers to easy, low-cost and timely access to information.

But this presentation has only skimmed the surface, with the idea being to point out some of the existing findings and approaches so that we can move from there to greater specifics. It will be

the task of the authors of the country case studies to apply those generalities to the specific situation within their respective countries. What we need to know, and what we hope the country case studies will tell us, is how each individual country can push the continent closer to the goal of being a major player in the global trading network. We want the case studies to provide:

- Greater detail on local conditions, costs, policy environment, firm responses
- Progress in reform, liberalization
- How a specific country differs from the norm
- Innovative local initiatives and how they are working – e.g., the money transfer service introduced by Safaricom, one of Kenya’s mobile phone companies
- Recommendations for the way forward

One way to approach the problem is to explore six areas at country level:

- Improving the investment climate
- Opening access to cheap information and communication technology (ICT)
- Tackling the infrastructure challenge
- Addressing corruption
- Dismantling barriers to trade facilitation and financing
- Overcoming technical barriers

For each area, it will be appropriate to:

- Obtain the perspectives of relevant government agencies and firms through
 - Well constructed, targeted surveys
 - Random samplings from each trade category (agriculture, horticulture, manufacturing, services particularly tourism)
- Compare their impressions with the operating environment
 - Actual regulatory framework
 - Actual infrastructural framework
 - Actual trade/industry data
- Crunch the numbers
- Derive policy implications
- Make *implementable* recommendations

Improving the Investment Climate

As he introduced *World Development Report 2005*, the World Bank’s Senior Vice President and Chief Economist François Bourguignon observed:

A good investment climate is central to growth and poverty reduction. A vibrant private sector creates jobs, provides the goods and services needed to improve living standards, and contributes taxes necessary for public investment in health, education and other services. But too often governments stunt the size of those contributions by creating unjustified risks, costs, and barriers to competition. (World Bank, 2004a)

Key among the tangible, credible steps necessary to improve the continent’s economic prospects is addressing Africa’s poor reputation in the world. That this is happening slowly is reflected in the title of a recent CNN documentary, “Africa Is Open for Business”, which pointed to the many investment opportunities in Africa. Events such as the June 2005 World Food Economic Forum – “Africa Economic Summit” – have been helpful in publicizing these issues, as have various initiatives by the Business Group of the New Partnership for Africa’s Development (NEPAD).

Lessons of trade competitiveness can be drawn from China's deliberate measures to build its trade and investment position through a conducive policy and infrastructure environment. A study by Broadman et al. (2006) of small and medium enterprises in southwest China revealed that firms located in cities with better investment environments had productivity rates of about 50% above average, while firms in poorer investment environment had productivity rates of 50% below average. This is but one example of the effect of a favourable investment climate, a climate that could be replicated in Africa if countries took concrete steps to do so. Options include diversifying towards manufactured exports and agro-processing like the East Asian economies (as Mauritius has done) or processing natural resource-based exports like Chile and Brazil (as Botswana has done). To reduce indirect costs such measures could be complemented by cohesive subregional investment areas that would promote collective good reputation (peer pressure), policy coordination and a coordinated infrastructure for enhancing connectivity.

Opening Access to Cheap Information and Communication Technology (ICT)

As evidenced earlier, timely, relevant information can enhance trade competitiveness. Information is one factor of production that doesn't get used up in production, and is the one factor of production that is – or should be – cheap to acquire. But using information effectively requires access to cheap communications technology, as well as a high level of human capital to apply the information productively. Since these are rarely available in SSA, addressing the problem of ICT costs and qualified people will require bilateral, subregional, continental and national initiatives to ensure improved services, access and interconnections between African countries and the rest of the world. Thus the expansion of Internet connectivity by lowering costs and freeing consumers from the constraints of inefficient landline technology and intermittent power availability should be high on the SSA trade agenda.

Africa has made a number of steps in this direction. The African Telecommunications Union (ATU) was established in 1999 to foster the rapid development of information and communication technology in Africa with the primary purpose of ensuring improved services, access, and interconnections between African countries and the rest of the world. Earlier in the 1990s, African telecommunications ministers created the Regional African Satellite Communications Organization (RASCOM). RASCOM intended to ensure the extension of affordable telecommunications services to the entire business community of Africa by setting up telecommunications infrastructure based on satellite technology. These and other initiatives have been hampered by lack of resources, commitment and coordination, but they represent a framework that could be supported and strengthened.

To address this situation we suggest that the case studies investigate the importance of ICT to productivity in their respective countries. Nordhaus (2001) concluded that for US business sector, information technology accounts for a third of productivity acceleration. According to a 2005 study by Vodafone (cited in Haworth, 2007), a country that has reached a level of mobile phone penetration of 10% of the population adds 0.59% to its GDP per capita growth rate.

Furthermore, information technology can help producers be more productive only when the human capacity is available to use it. For African countries to sharpen their competitive edge and increase productivity, addressing the human resource gap is of utmost importance. One challenge here is to revitalize formal institutions as agents for investment and export so as to reduce information constraints. How are African governments enhancing the capability of export promotion agencies? Public or private investment promotion agencies (IPAs), as important mechanisms for information dissemination, could be considered where they do not exist and strengthened where they do. IPAs can play a significant part in informing the world of a country's

changing economic environment, local laws and regulations, and investment opportunities. IPAs can also bridge the gap between private and public sectors to improve the understanding of what is required to benefit from international production network.

Tackling the Infrastructure Challenge

Communications are just one aspect of Africa's larger infrastructure problem that drives up transaction costs. It is clear from our discussion on supply constraints that good-quality roads and reliable power hardly exist in many SSA countries. Part of the reason for this is that African governments and development partners sharply reduced the share of resources allocated to infrastructure during the 1990s in favour of scaling up spending in social sectors – which had been seriously neglected earlier. This had a particularly adverse effect on the investment in and maintenance of the transport infrastructure. The result is either incomplete, often nonexistent, transport connections or poor service quality where facilities do exist.

Competition among providers of transport services is largely absent on the African continent. Because of policy-based barriers to entry, private service companies generally have only a weak commercial presence in Africa. Where they do exist, incumbent providers, often monopolies created or sanctioned by the government, have the upper hand in the market. Generating competition in transport services by liberalizing the sector is one way to promote the infusion of resources necessary to improve this aspect of infrastructure. We need to know whether and where this is working, and what the models are.

Given SSA's geographic disadvantages – particularly in landlocked countries – and the small size of markets, should we perhaps forget about artificial boundaries like historical borders and concentrate on regional associations and projects? Infrastructure investments should be part of a regional or subregional strategy. The West African gas pipeline and the Southern Africa and West Africa power pools are examples of how important it is to invest regionally.

Addressing Corruption

No measures to improve trade competitiveness in Africa will be fully successful unless they address unofficial transaction costs – the corrupt practices that are endemic in SSA. Border crossings, investment licences, customs clearances, police roadblocks and many others are all payment opportunities that add to costs. Which countries have incorporated innovative and flexible customs systems, for example, including decentralization of responsibilities and decision making and greater autonomy and especially accountability for the officers on the ground? How are such systems working? How much retooling (and perhaps replacing) of human resources and investment in technology and audit-based systems has been found necessary? Morocco is one African country that has managed to tackle corruption and improve customs procedures, thanks to the collaboration of committed public and private actors. The Moroccan experience in customs reform is one that other African countries could emulate.

Dismantling Barriers to Trade Facilitation and Financing

Predictability and accessibility are keys to trade financing. Cheaper credit will also reduce transaction costs. Linkages between farmers and traders and other arrangements with enterprises in the agribusiness chain, such as contract farming, have been found to overcome many financing constraints and may be particularly important for smallholders. Concrete examples from sub-Saharan Africa are needed of the results of government efforts to reduce the cost and complexity

of credit. Among these could be central bank refinancing schemes; specialized financing institutes like export-import banks or factoring houses; and export credit insurance agencies.

The European Union offers a model of effective measures for addressing trade competitiveness through the harmonization and simplification of international payment systems. The EU is marking its fiftieth anniversary this year, and it is easy to lose sight of where it began – rising from the destruction of war and political disintegration. This situation has many parallels with that of sub-Saharan Africa today. The EU did not get where it is alone, but in rebuilding with the help of friends the fledgling union took a long-term view and made systematic steps towards unity. The impact on trade facilitation, which is our concern, is there for all to see. AERC's earlier work on regional integration traced the effectiveness and impact of regional agreements. The case studies for the current project would do well to revisit this theme and identify ways in which such schemes have affected transaction costs related to trade facilitation.

Overcoming Technical Barriers

Quality, health and process standards present both constraint and opportunity in terms of transaction costs. Complying with standards can cost producers money – especially when they are capricious – but it can also contribute to competitiveness. Only 34 countries from SSA belong to the International Standards Organization (ISO). At the individual country level, where are we in terms of bringing our respective bureaus of standards up to date? A related concern is appropriate education, training and financing for local research and development (R&D). Worldwide, Asia as a whole accounts for 86% of R&D scientists and engineers in the developing world. Latin America contributes 10% and sub-Saharan Africa accounts for 0.3% (Lall, 2005). The lesson here is obvious. The issue is, what is SSA doing about it.

Currently smallholder farmers use traditional farming methods on small-scale acreage, which turns out to be very expensive both in terms of labour input and time. Median to large-scale farming using improved farm inputs and implements could spur agricultural production for the domestic and regional markets. What mechanisms are in place and can be replicated to improve the productivity of the smallholders, who will doubtless be the mainstay of African agriculture for the foreseeable future?

Similarly, it has been observed that small-scale producers (shoes in Ethiopia and furniture in Kenya) can turn out first rate quality products that could compete with similar products from elsewhere. But the quantities are small. If assisted through microfinance and information about markets, these enterprises would be able to increase production for domestic markets and regional markets. How can the country case studies facilitate this aspect of production?

Conclusion

Doing business in Africa is getting easier, but the pace is slow. Speeding up the process that allow SSA to compete on stronger footing in the global trade arena calls for making it easier and cheaper for business to operate. Almost across the board Africa requires better infrastructure, a conducive regulatory and facilitative framework, and greater return on investment – in short, lower transaction costs. Collective effort is needed. Countering SSA's existing bad image and promoting the region as an attractive destination for investment calls for concerted action at the individual country level, complemented by continent-wide efforts. It is to be hoped that the results of the country case studies will provide support for such a campaign.

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