

# Economic Integration in the Lower Congo Region: Opening the Kinshasa-Brazzaville Bottleneck

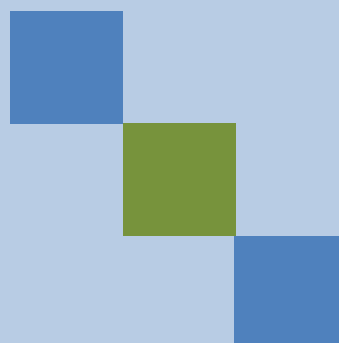
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## Africa Trade Policy Notes

### Note #19

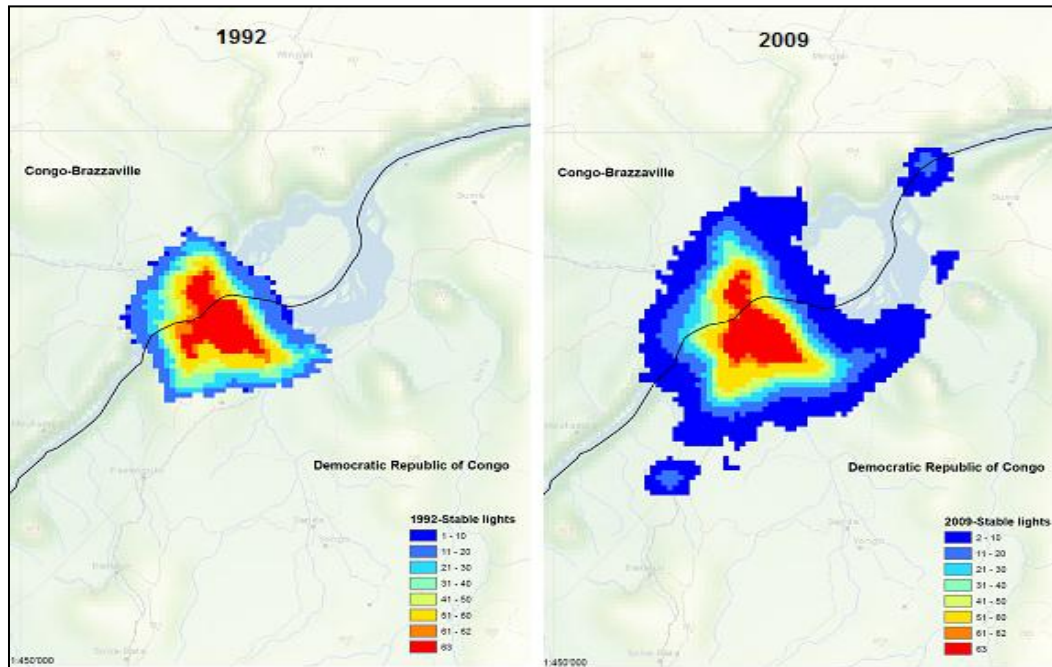


#### Introduction: A Major Bottleneck

**Kinshasa-Brazzaville, currently the third largest urban agglomeration in Africa, is predicted to become Africa's largest, and the world's 11th largest, city by 2025.** With an international border running right through it, this regional hub of economic activity is the obvious focal point for cross-border exchanges between the two Congos. Using satellite images of night lights, Figure 1 illustrates how, in spatial terms, the two capitals form a seamless urban unit, which has grown considerably over the last two decades. According to UN statistics, Kinshasa currently counts 8.8 million and Brazzaville 1.3 million inhabitants; up from 3.6 million and 0.7 million, respectively, in 1990. The United Nations (2010) expects the Kinshasa population to grow faster over the next 15 years than that of any other world metropolis, predicting a 2025 city size of 15.0 million. The population of Brazzaville is forecast to swell to 1.9 million.

**Despite their size, proximity and status as regional trade hubs, formal bilateral trade between the two cities as well as between their two countries is derisively small.** The province of Kinshasa accounts for over 21 percent of the Democratic Republic of Congo's (DRC) GDP but for a mere 0.8 percent of its exports. Officially recorded imports from the Republic of Congo (RC) represent but a fraction of a percent of Western DRC imports. Recorded volumes of transit trade are somewhat larger, but also account for well under one percent of Western DRC imports. Recorded RC imports from the DRC are only slightly more important, amounting to some 1.12 percent of total RC imports in value terms. There can be no doubt that these statistics largely understate the true volume of (formal and informal) trade, but they point toward considerable potential for an expansion of formal trade.

**Figure1: Night Lights in Kinshasa-Brazzaville, 1992 and 2009**



**Officially recorded trade flows between the DRC and the RC are largely limited to transit trade flows, which seem to be increasing.** Recorded transit imports from DRC were about three times larger in 2007 than in the two preceding years, and transit trade seems to have increased further since. Formal transit flows predominantly run from Kinshasa to Brazzaville. Hence, Brazzaville is partially supplied through the DRC's ocean port of Matadi via Kinshasa, due to the poor condition of the transport corridor linking Brazzaville to the RC's ocean port at Pointe Noire. Official data certainly underreport the importance also of transit trade. Large informal flows of clothing and textiles from Brazzaville to Kinshasa, for instance, mostly originate in West Africa and reach Brazzaville through Pointe Noire or Douala. These flows do not appear in any statistics.

**Passenger traffic between Brazzaville and Kinshasa is smaller in relative terms than traffic between East and West Berlin in the times of the Berlin Wall.** We estimate the

overall number of passenger crossings at around 700,000 annually. This volume of traffic, scaled to city sizes, is some 175 times smaller than the river-crossing passenger traffic in Kisangani – another conurbation straddling the Congo River but not crossed by a national border. It is also around five times smaller than the volume of passenger traffic between East and West Berlin in 1988 – well before the dismantling of the Wall.<sup>1</sup>

#### **ESTIMATING THE EFFECTS OF REMOVING THE BOTTLENECK**

**The sheer demographic and economic size of the Kinshasa-Brazzaville agglomeration, as well as its role as gateway for large economic hinterlands, should make economic**

<sup>1</sup> In 1988, there were some 1.9 million passenger crossings between East and West Berlin – about one crossing per three inhabitants of the Berlin metropolitan area. The 700,000 estimated crossings between Kinshasa and Brazzaville represent about one crossing per 15 inhabitants of the two cities combined.

**integration between the two capitals a matter of central policy interest in the region.** Recent academic research in economic geography furthermore suggests that urbanization is a key engine of growth in developing countries, and that constraints on the formation of urban agglomerations can constitute a severe obstacle to economic development of the concerned countries as a whole.<sup>2</sup> Hence, easing the Kinshasa-Brazzaville bottleneck could yield medium-term growth effects that extend to the wider economies of both Congos. As our empirical analyses were restricted to potential short-run effects in the Kinshasa-Brazzaville region itself, our findings should be viewed as lower-bound estimates of the potential aggregate effects of trade facilitation across the Congo River.

#### *Analysis of Price Differentials*

**We compared retail prices in both cities, as systematic price differences for identical goods in two markets represent the probably most reliable indicator of barriers to trade between those markets.** Absent physical and regulatory barriers to trade, price differences will be arbitrated away. We therefore compared prices of 57 goods chosen so as to offer a representative sample of Congolese consumption baskets. Prices were collected using a consistent methodology in four large retail markets in each city, two in the respective city center and two in the suburbs, between 26 August and 3 September 2010.

**We find significant price differences, suggesting that trade facilitation between Kinshasa and Brazzaville would lead to lower prices in both cities.** Using panel data regression methods, we find that imports from across Malebo Pool - the 3.5 kilometers-wide

stretch of the river Congo that separates the two cities - are consistently more expensive than corresponding local products. Our best estimate of this price differential is 20 percent. Thus, shipping local goods across Malebo Pool is found to increase the retail price of these goods by one fifth. Our econometric analysis furthermore suggests that price differences cannot be attributed to differences in local producer and distribution costs, implying that the underlying economic structures in Kinshasa and Brazzaville are very similar. Considerable price differentials are also found for goods imported from overseas. Our observed price differentials imply significant trade barriers between the two cities but not within them. Given the proximity of the two markets, this implies considerable potential for intensified arbitrage through cross-Pool trade.

#### *Structured Interviews*

**In order to estimate the potential for trade expansion, we conducted a series of structured interviews with firms in Kinshasa and Brazzaville** in April-June 2010. The interviewed firms had to respond to a sole criterion: that they were, or had been, engaged in cross-border economic activities, either by trading goods or by transporting passengers. Conditional on this criterion, we sought to cover as representative a sample of firms as possible. We obtained interview answers from 57 firms, 17 of which are manufacturers, 19 are based in Brazzaville, and 12 are informal. Sample firms were presented with an identical 72-item questionnaire, containing questions on the existing structure of the business as well as hypothetical assessments of the impact on their activities of trade liberalizing measures.

**Brazzaville is currently considered a negligible market for most firms in Kinshasa, but responses point towards large untapped trade potential.** Of the 38 Kinshasa-based

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<sup>2</sup> See, e.g., Deichmann *et al.* (2008), and Brühlhart and Sbergami (2009).

firms, only 17 declared significant sales in Brazzaville. The average share of such sales is estimated at around 5 percent. Given that the population of Brazzaville corresponds to some 15 percent of the population of Kinshasa, and that average income is higher in Brazzaville, this implies large unexploited trade potential between the two cities.

**As a result of excessive administrative costs, most cross-river trade is partly or fully informal.** Only two of the 17 Kinshasa firms who have significant client bases in Brazzaville export through official channels. The remaining 15 firms get their clients to ship the goods across Malebo Pool themselves. Six Kinshasa-based firms declared that they had either exported formally to Brazzaville in the past or seriously considered doing so, but abandoned all such activity, citing excessive administrative costs including duties, paperwork and bribes. Informally traded goods are smuggled across the river via well established systems involving under-the-counter payments to various customs and security officials.

**Trade facilitation across Malebo Pool appears to hold particular promise for promoting local manufacturing and small-scale trading activity, much of which is currently informal.** Regression analysis of the survey responses suggests that smaller firms and manufacturing firms anticipate expanding their activities proportionally more than larger firms and pure trading companies, perhaps because larger firms and pure traders are already better able to circumvent trade barriers.

**The estimated trade-cost elasticity of trade between Kinshasa and Brazzaville is 0.8.** A halving of trade costs is predicted by our sample firms to trigger a 40-percent increase in the volume of trade. The corresponding estimated elasticity for total external trade by DRC and RC firms equals 0.5. Hence, a reduction in trade

barriers between the two capital cities would trigger a considerably stronger relative increase in trade flows than trade liberalization measures aimed at other partner countries and trade routes. As our approach implies a certain status-quo bias and must therefore be considered as yielding lower-bound estimates, our estimated elasticities may well be compatible with true elasticities of one, meaning that any cut in trade costs might be offset by a fully equiproportional increase in the volume of trade.

#### **BARRIERS TO CROSS-BORDER INTEGRATION**

**We estimate the average cost of a return trip across Malebo Pool at some USD 40, equivalent to between 40 and 80 percent of the average monthly income earned by Kinshasa residents.** All interviewed firms complained about excessive fares and taxes for crossing Malebo Pool. Accounting for the full range of fees, the cost of a return trip on an official ferry is estimated at USD 68.80 (see Table 1). However, effective costs stated by interviewees vary widely, due largely to unpredictable and arbitrarily applied schedules, to a multitude of fee-charging “services” with inconsistent presence and enforcement, and to widespread evasion and corruption. 20,000 CFA francs (~USD 40) is the standard all-inclusive price stated to us by several regular travelers. Crossing by pirogue represents a slower and more hazardous alternative, which, according to the costs summarized in Table 1, still costs about half of a ferry crossing, mainly because of payments claimed by police and military officers. To put these figures in perspective: San Francisco and Oakland are separated by a similar distance to that between Kinshasa and Brazzaville. If, relative to local average income, the same costs applied to crossing the Bay Bridge as those that currently have to be paid to cross Malebo Pool, San Francisco residents would pay between 1,200 and 2,400 dollars for a return trip to Oakland.

**Table 1: Estimated Cost of Passenger Crossing between Kinshasa and Brazzaville (in USD)**

Table 1: Estimated Cost of Passenger Crossing between Kinshasa and Brazzaville (in USD)	From Kinshasa to Brazzaville			From Brazzaville to Kinshasa		
	<i>Ferry</i>	<i>Fast boat ("canot")</i>	<i>Dugout canoe</i>	<i>Ferry</i>	<i>Fast boat ("canot")</i>	<i>Dugout canoe</i>
<b>One-way fare</b>	12.10	25.00	2.80	10.80	21.60	2.80
<b>Travel document ("laissez-passer") at origin</b>	5.00	5.00		5.90	5.90	
<b>Search ("jeton fouille") at origin</b>	2.00			2.00		
<b>Port fee ("redevance portuaire") at origin</b>	2.70	2.00		2.40	4.70	
<b>Vaccination card at origin</b>	1.60					
<b>Various fees and taxes at destination</b>	12.50	15.00		11.80	16.00	
<b>Police/military at origin ("droit de passage", "commisse" etc.)</b>			4.70			9.80
<b>Police/military at destination ("droit de passage", "commisse" etc.)</b>			5.00			7.60
<b>Total</b>	<i>35.90</i>	<i>47.00</i>	<i>12.50</i>	<i>32.90</i>	<i>48.20</i>	<i>20.20</i>

Source: confidential survey of 57 trading firms in Kinshasa and Brazzaville. Prices converted using exchange rates of 910 Congolese francs per USD and 510 CFA francs per USD

**In addition, traders are frustrated by tight timetables and poor organization of the ferry ports.** Officially, passenger traffic is allowed only between 8 a.m. and 4 p.m. on weekdays and Saturdays and between 8 a.m. and 12 p.m. on Sundays. Customs clearance of goods is done in open spaces and is badly organized. Traders and simple travelers are not systematically treated separately, which complicates customs procedures and increases opportunities for rent extraction by officials, who are often described not only as corrupt but as aggressive and downright violent. Discrimination by nationality and ethnicity is also reported. The intensity of

official harassment ("tracasseries") also seems to vary across different types of merchandise, with some goods, such as sugar, less subject to extortionary pressures than others.

**Shipping goods across Malebo Pool in bulk is very costly as well.** Costs reported by traders range from 3 to 30 percent of FOB values. Recent World Bank estimates are of USD 15 per ton for barge transport and USD 26 for border delay costs. While port infrastructure is in a general state of disrepair, administrative hurdles appear to represent the main cost factor. Transit procedures also generate considerable

### Box 1: ONATRA and CNTF

Despite its dominant position, **ONATRA** claims not to be able to finance any investment projects out of its river-crossing operations. It can be estimated that ONATRA's daily operating profit from the Malebo-Pool ferry service alone exceeds USD 5,000, thus probably earning the firm some 2 million dollars annually. The port at Matadi, which is also run by ONATRA, is believed to generate even larger operating margins. The problem, according to the firm's management, is a top-heavy and bloated payroll of some 12,500 employees plus a similar number of pensioners for all of its operations. Some of this is undoubtedly a legacy of busier pre-war times, but it does not appear that the firm has proper control over its entire payroll. What is clear, however, is that this overblown personnel budget as well as various forms of government interference prevent ONATRA not only from offering the best customer service (an unlikely outcome anyway, given its monopoly status) but even from maximizing its own profits. It would appear very likely that investing some of its revenues in upgrading its transport and loading capacity would benefit its own profits in the medium term, as the firm seems to operate well below the capacity at which its marginal cost equals its marginal revenue.

The situation at ONATRA's Brazzaville-based equivalent **CNTF** seems to be very similar. Despite high operating margins, the firm's management claims that no re-investable profits can be generated. Discussions are said to be under way for the privatization of CNTF, but real progress does not look imminent.

administrative costs, and the system allows substantial leakage.

**Customs procedures at Kinshasa and Brazzaville border posts are reported to be cumbersome.** There is no effective preferential trade agreement between the two Congos even though both are members of the Economic Community of Central African States (ECCAS). This means that in principle all goods transported across the river have to pay the full customs duties. While a simplified regime for small-scale traders existed in the past, this regime has been suspended, and treatment of petty traders remains arbitrary and often abusive. A DRC presidential decree of 2002 grants the right to operate at customs posts to only four agencies. Yet, up to 17 agencies are reported to operate at the passenger port in Kinshasa, often

raising fees from traders and travelers without offering any corresponding services.

**The observed high prices and low capacity largely result from the duopoly granted to the two national operators, ONATRA (in the DRC) and CNTF (in the RC).** A convention signed by the two governments in 2005 attributes exclusive rights over the Brazzaville-Kinshasa route for passenger traffic to the two state-owned transport companies. Yet, despite their officially sanctioned privileges, the two operators appear to be unable to finance maintenance and infrastructure investment out of their revenues from river-crossing traffic (see Box 1). The main reason behind high prices and inadequate infrastructure therefore appears to lie

## Box 2: Crossing the Congo at Kisangani

**More than 96 percent of crossings are made by motorized dugout canoe, with less than 4 percent of passengers crossing by ferry.** In November 2010, some 60 canoes were in operation on any single day. Dugouts depart on average every ten minutes, between 5.45 a.m. and 10 p.m. Passengers pay CDF 100 for a crossing on the ferry as well, whereas vehicles are charged USD 30 for a same-day return. Some 3,000 vehicle return trips are recorded per annum. The ferry operates from 7 a.m. until 6 p.m.

**Even though river-crossing traffic is significantly cheaper, more frequent and less cumbersome in Kisangani than in Kinshasa-Brazzaville, the river-crossing transport market in Kisangani is not free either.** Both prices and quantities are controlled. Fares are set by the mayor's office ("Hôtel de Ville") and the National Economics Ministry ("Ministère de l'Économie Nationale"). Entry is costly: every canoe operator has to be affiliated with ANAFLUKIS, the association of private operators. This costs a hefty USD 500 to join, plus a daily fee of CDF 2,600. Furthermore, ANAFLUKIS restrains the number of operators at any given time, by forcing canoes to work only every second day. This arrangement is clearly lucrative for operators. It can be estimated that daily operating profits per canoe (after fuel costs and fees) are in excess of USD 25. Furthermore, ANAFLUKIS evidently makes significant revenues, the destination of which we were not able to establish. Finally, ANAFLUKIS are forced by the mayor's office to buy most of their fuel at above-market prices. This is another source of economic rents whose final beneficiaries are unknown to us.

**The ferry operator seems to earn considerable profits but fails to invest in maintenance and repairs with likely very high return on investment.** Our estimates suggest that the ferries generate an annual operating profit somewhere between USD 120,000 and 390,000. Nonetheless, the operator "Office des Routes" claims to lack the means for financing maintenance, let alone investment. In fact, the car ferry, which was donated by the EU in 2008, has been broken since June 2009. Since then, it crosses the river towed to the passenger ferry, which significantly reduces carrying capacity. The cost of repairing the broken engine is estimated at less than USD 20,000. Yet, based on reported revenues when the ferry was operational, we estimate that such an investment would allow the operator to more than double its revenues. We were unable to establish what happens with Office des Routes' profits from the ferry operation

in uncompetitive market structure coupled with poor management by the dominant operators.

**Cross-river passenger traffic in Kisangani is 175 times larger in per capita terms than in Kinshasa-Brazzaville.** Being located on either side of the Congo river but not divided by a national border, Kisangani offers a useful point of comparison to Malebo Pool. Kisangani has an estimated population of somewhat over 800,000, making it around a twelfth the size of Kinshasa-Brazzaville. In Kisangani, it is common for

traders, school children, students and workers commute across the river on a daily basis - something which has been unheard of between Kinshasa and Brazzaville for decades. The estimated number of passenger river crossings for 2009 is 10.2 million, while our estimate of the number of trips across Malebo Pool is 0.7 million.

**Crossing the river Congo in Kisangani is about 300 times less expensive than crossing it in Kinshasa-Brazzaville, and the river in**

**Kisangani is open for legal crossing twice as long every day as on Malebo Pool.** All official operators in Kisangani apply a flat fare of CDF 100 (USD 0.1) per person and crossing. No additional charges apply, and bureaucratic obstacles seem to be minimal both at embarkation and at disembarkation. Yet, the river is only about six times wider in Kinshasa than in Kisangani. While disabled travelers, who generally pay no or reduced fares and duties between Kinshasa and Brazzaville, account for two thirds of passengers in Kinshasa-Brazzaville according to some estimates, their share in Kisangani is estimated at just ten percent. This is an evident outcome of river crossings being significantly more affordable to the general population in Kisangani than on Malebo Pool. For details on the organization of river-crossing traffic in Kisangani, see Box 2.

#### **POLICY RECOMMENDATIONS**

**What can policy makers do?** While large foreign-funded infrastructure projects exist on the drawing board, considerable uncertainty remains over their realization and future viability. Hence, we explore options for regulatory measures and small-scale donor interventions aimed at unleashing “bottom-up” local entrepreneurial activity.

**First and foremost, our analysis points to the importance of customs reform.** A central element of such a reform is the systematic implementation of single clearing and payment points for traders (“guichet unique”). A corollary of this is a significant reduction, in the number of public or semi-public agencies (or even private agents) active at border posts and allowed (or at least tolerated) to collect fees from traders. Existing law in fact only allows four such agencies to operate at the border. An area for reform of particular interest to the Kinshasa-Brazzaville region, as well as to their hinterlands, is the organization of transit trade.

Leakage and fraud in transit trade should be minimized. Transit could be further facilitated by more intensive collaboration between DRC and RC customs offices, and the modalities of charging (and reimbursing) indirect taxes should be improved.

**In addition, travel and transport across Malebo Pool could be facilitated through a range of mainly regulatory measures, with immediate impact.** Given the large cost and uncertain prospects associated with the long-standing project of building a bridge across Malebo Pool, less costly and more rapidly implementable solutions to unblocking the Kinshasa-Brazzaville bottleneck need to be identified. Such measures could prepare the ground for later infrastructure investment, by demonstrating the effects of lower trade costs. While dilapidated infrastructure may be the visible face of high trade costs in Africa, uncompetitive transport markets often pose even more severe obstacles to the free movement of goods and people.<sup>3</sup> High administrative costs and constraints on competition in transport services would have to be addressed to allow the full benefits of improved infrastructure to materialize. If implemented effectively, such measures by themselves could generate benefits similar to those of a bridge, at a fraction of the cost. In fact, facilitating the activities of local transport entrepreneurs across Malebo Pool could well pay higher economic rewards than the construction of a bridge, since most of the work on a bridge would likely have to be carried out by foreign contractors, whereas water-borne transport services can well be supplied by local operators. Part of such a reform could also be the reintroduction of a transparent system for clearing customs to small traders as outlined below.

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<sup>3</sup> See Teravaninthorn and Raballand (2009).



**To this end, the first-best policy option would be to abolish the convention restricting passenger traffic across Malebo Pool, thus ending the stranglehold of ONATRA and CNTF on Pool-crossing passenger transport.**

Ideally, market liberalization would be accompanied by more transparent and simpler procedures for immigration, customs, and related border controls. Transport of goods and passengers would be more clearly separated in order to reduce opportunities for rent extraction. Concessions for additional river ports to compete with the existing set of ports could be auctioned as a complement to these reforms. As a second-best solution, the establishment of a second pair of accessibly located “beaches” with independent transport operators could go a long way toward reducing transport prices and limiting opportunities for rent extraction by port agents and shipping operators.

**If such solutions were not politically feasible, initial measures to facilitate trade and passenger traffic could focus on a range of relatively simple administrative measures:**

- enforcement of full transparency of fares for passengers and goods through publicly available fare schedules
- enforcement of full transparency of all border and harbor fees and duties through publicly available schedules of the full range border taxes
- re-introduction of simplified customs duties for small transactions
- conducting a pilot trial of a single-fee model for passengers and/or goods (all border fees and duties consolidated into a single rate, collected at one counter, and then shared out among the relevant government agencies)
- a clearer separation of passenger and goods traffic at existing port facilities
- a reduction in customs controls on pure passenger traffic to infrequent random checks (made possible by the separation of passengers from goods traffic)

- enforcement of limitations to agencies allowed to operate at border points
- extension of port opening hours and hours for river crossings

**The payoff to administrative and regulatory reforms could be leveraged through infrastructure investments.** Private as well as social rates of return on transport investments are estimated to be particularly high between Kinshasa and Brazzaville, where population density is high and distances are comparatively short.<sup>4</sup> Access routes also offer significant potential. The Matadi-Kinshasa and Pointe Noire-Brazzaville corridors serve not only as the respective gateways to the world for the two capital cities but they should be seen as competing corridors that can ensure substantial reductions in trade costs. Lower access costs to world markets for local companies will increase their capacity to compete and create additional employment. In addition, the two corridors could function as mutual “fall-back options” for the case of interruptions to one of those routes. Hence, each country’s maintenance of its access route to the ocean generates external benefits to the other country.

**Infrastructure investments will have to be combined with sustainable mechanisms for maintenance.** The upkeep of new and existing physical capital will have to be locally funded to be sustainable in the long term. It is therefore important that projects to facilitate trade are made compatible with the incentives of local actors to serve the interests of the many rather than those of the few. As long as foreign-financed transport capital is captured for rent extraction by local elites while being left to degrade, such investments will not yield sustainable gains - and they may even add to local distributive tensions.

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<sup>4</sup> See World Bank (2010).

**Unblocking the Malebo bottleneck through a combination of regulatory changes and some infrastructure investment could yield significant economic gains for both capital cities, have symbolic value as a gesture of political good will, and represent a test case for trade reform.** Since many regional integration treaties have remained a dead letter and may be seen as political vanity projects by much of the population, some well-targeted interventions in Kinshasa and Brazzaville could offer visible advantages to a large number of citizens at relatively low cost. Implementation and enforcement may also be more effective right in the heart of the capital cities, where the central government has better control than in more remote border regions. Kinshasa and Brazzaville, therefore, are ideally placed to be taken as a test case for reform of cross-border transport and customs, which, if successful, could later be replicated elsewhere.

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