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Economic Integration in the Lower Congo Region

Opening the Kinshasa-Brazzaville Bottleneck

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Abstract

This working paper assesses cross-border economic integration in the Lower Congo region. It focuses on the Kinshasa–Brazzaville conurbation, which is projected to become Africa’s largest urban area by 2025, and is already serving as the gateway to large hinterlands. Despite their size and proximity, formal economic exchanges between the two cities are extremely limited. The volume of recorded passenger travel between Kinshasa and Brazzaville corresponds to about one-fifth of the volume of traffic between East and West Berlin during the time of the Berlin Wall, and formal trade volumes are derisively small. As a consequence, the authors find evidence of statistically significant differences in retail prices, indicating unexploited scope for cross-river

arbitrage. Through a survey of firms, they find that local traders perceive substantial scope for increasing cross-border economic activity if cross-river trade costs were reduced. Trade in locally produced goods and by small firms would especially benefit from such reductions. Existing high trade costs mainly result from a lack of competition in cross-river transport services, which are dominated by a duopoly of state-controlled operators. High administrative border costs, exacerbated by the presence of multiple government agencies at the border, act as a further obstacle. Liberalization of cross-river transport and customs reform could yield large economic benefits for local producers and consumers.

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ECONOMIC INTEGRATION IN THE LOWER CONGO REGION: OPENING THE KINSHASA-BRAZZAVILLE BOTTLENECK

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ABBREVIATIONS

CAR	Central African Republic
CFCO	Chemin de Fer Congo Océan
CICOS	Commission Internationale du Bassin Congo-Oubangui-Sangha
CMDC	Compagnie Maritime du Congo
CNTF	Chantier Naval et Transports Fluviaux
COMESA	Common Market for Eastern and Southern Africa
DEMIAP	Détection Militaire des Activités Anti-Patrie (secret service)
DGDA	Direction Générale des Douanes et Accises (customs authority)
DMVN	Direction de la Marine et des Voies Navigables
DRC	Democratic Republic of Congo (“Congo Kinshasa”)
DRM	Direction Générale de Migration
DTIS	Diagnostic Trade Integration Study
ECCAS	Economic Community of Central African States
FEC	Fédération des Entreprises du Congo
FTA	Free Trade Area
GSP	Generalized System of Preferences
IFC	International Finance Corporation
OCC	Office Congolais de Contrôle
OGEFREM	Office de Gestion du Fret Multimodal
ONATRA	Office National des Transports
PABPS	Direction du Port Autonome de Brazzaville et des Ports Secondaires (Brazzaville Port Authority)
RC	Republic of Congo (“Congo Brazzaville”)
RVF	Régie des Voies Fluviales
SADC	Southern African Development Community
SCEVN	Société Commune d’Entretien des Voies Navigables
SOCATRAF	Société Centrafricaine de Transport Fluviaux

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EXECUTIVE SUMMARY

This report explores avenues for cross-border economic integration in the Lower Congo region. We seek to quantify latent trading opportunities, to identify the principal obstacles and to formulate practical policy proposals.

Bilateral official trade volumes between DRC and RC, recorded transit trade, and trade with Angola are all found to be small. Formal trade between DRC and RC is lower now than in the 1980s. However, we also find evidence of significant informal trading activity.

Given its importance in demographic and economic terms, we focus on the Kinshasa-Brazzaville region – projected to become Africa’s largest conurbation by 2025, and serving as the gateway to large hinterlands. The link between their capitals turns out to be the main bottleneck for the expansion of economic relations between the two Congos. Small but concrete measures for drawing together such a “natural neighborhood” could open a viable path toward regional integration and offer a complement to more ambitious but institutionally demanding regional agreements. Moreover, policy interventions to facilitate cross-border exchanges will be both more visible and better enforceable when first implemented between the two capitals than if attempted in more remote places. Finally, facilitating transport and trade across Malebo Pool, the river basin separating Kinshasa and Brazzaville, will create competing supply routes to and from the Atlantic sea ports, which can act as a form of insurance for the case of interruption of either route.

We find the costs of passenger and goods transport between Kinshasa and Brazzaville to be very high. A return trip for one person on a licensed vessel typically costs between 20 and 40 US dollars, representing 40 to 80 percent of the average monthly income earned by Kinshasa residents. Trade costs for goods across Malebo Pool, a distance of 3.5 km, have been estimated between 3 and 30 percent of FOB values. Some two thirds of these costs consist of border delays and administrative costs. Border formalities for persons and goods are slow, complex and poorly administered. A multitude of agencies are present at DRC border crossings in direct violation of presidential orders, restricting their number to four. Bribery, incivility and violence are rife.

Official passenger transport across Malebo Pool is controlled by a duopoly consisting of the two state-owned transport operators. Private operators are licensed under a quota regime and subject to steep fees payable to the duopolists. We find that the price of crossing the river at Kisangani, a comparable setting without a national border, is about 300 times lower than that of crossing Malebo Pool, with the number of passenger crossings nearly 175 times larger on a per-capita basis. The volume of official passenger travel between Kinshasa and Brazzaville corresponds to about one fifth of the volume of traffic between East and West Berlin during the times of the Berlin Wall.

We find that the high border costs and low traffic volumes are observed in parallel with significant market segmentation, suggesting a causal link. Our survey of retail prices in Kinshasa and Brazzaville shows that average prices of locally produced staple goods are largely equalized across markets within each city. When comparing prices across the river, however, we find them to be statistically significantly higher, on both sides, for goods shipped across the river. Our central estimate of this price margin is 20 percent. Despite the dominance of the Matadi-Kinshasa-Brazzaville transit route according to official statistics, prices of overseas imports appear to be somewhat higher in Kinshasa than in Brazzaville. Such price differentials point toward considerable unexploited arbitrage opportunities.

Using a purpose-designed company survey, we then estimate likely economic responses to changes in trade costs. We find the trade-cost elasticity of trade across Malebo Pool to be high, possibly even exceeding the value of 1. This means that cuts in the price of cross-Pool transport will stimulate a strong expansion of trade – so strong that it might even increase revenue for transport operators and for customs. Trade facilitation across Malebo Pool would promote mainly trade in locally produced goods and trade by small-scale producers. It thus holds particular promise for unlocking local productive potential.

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.

We propose that customs procedures be brought in line with existing legal prescriptions, and in particular that the decreed restriction on the number of agencies present at border crossings be enforced. Moreover, customs procedures ought to be simplified further, and fare structures should be made transparent. We also propose a liberalization of the cross-river transport market. Such measures would be comparatively cheap, would yield large gains to the general population, should be relatively easy to enforce given the proximity to the seats of government, and could have high symbolic value as evidence of political goodwill between the two nations.

Our policy recommendations can be taken as complements to more general trade-facilitating reforms through regional trade agreements and customs reform, as proposed in the World Bank’s recent Diagnostic Trade Integration Study. They also could be seen, at least in the short-to-medium term, as substitutes for the project of building a bridge to link Kinshasa and Brazzaville. Technical support, adjustment financing and some infrastructure funding from external donors could well be envisaged.

1. INTRODUCTION

This report explores avenues for fruitful regional economic integration in the Lower Congo region, meaning primarily the Democratic Republic of Congo (DRC) and the Republic of Congo (RC). We seek to quantify the latent trading opportunities in the Lower Congo region, to identify the principal obstacles to their realization and to formulate practical policy proposals for mutually advantageous cross-border integration.

DRC and RC offer enormous economic potential. Provided that the political situation remains comparatively stable and the remaining security problems abate further, DRC and RC export sectors are poised to increase production. Such a prediction is of course fraught with risks, and given the turbulent history and complex ethnic and social makeup of the two countries, reversals must be considered a real possibility. To mention just three examples: the river Congo is considered by experts as the world's largest untapped source of hydroelectric energy; the value of the rainforest as a carbon sink is bound to increase; and further discoveries may well beckon in the Kizomba oil field off the Congo estuary. Moreover, the DRC's manufacturing base has been severely diminished by misrule under the Mobutu régime and by the ensuing wars, and some industrial activity is bound to resume if stability can be maintained in the DRC as well as in RC. Severe constraints including weak institutions, low human capital and a depleted capital stock all but rule out rapid industrialization, but the medium-term economic forecast for the two Congos must surely be positive (see also Ulloa *et al.*, 2009).

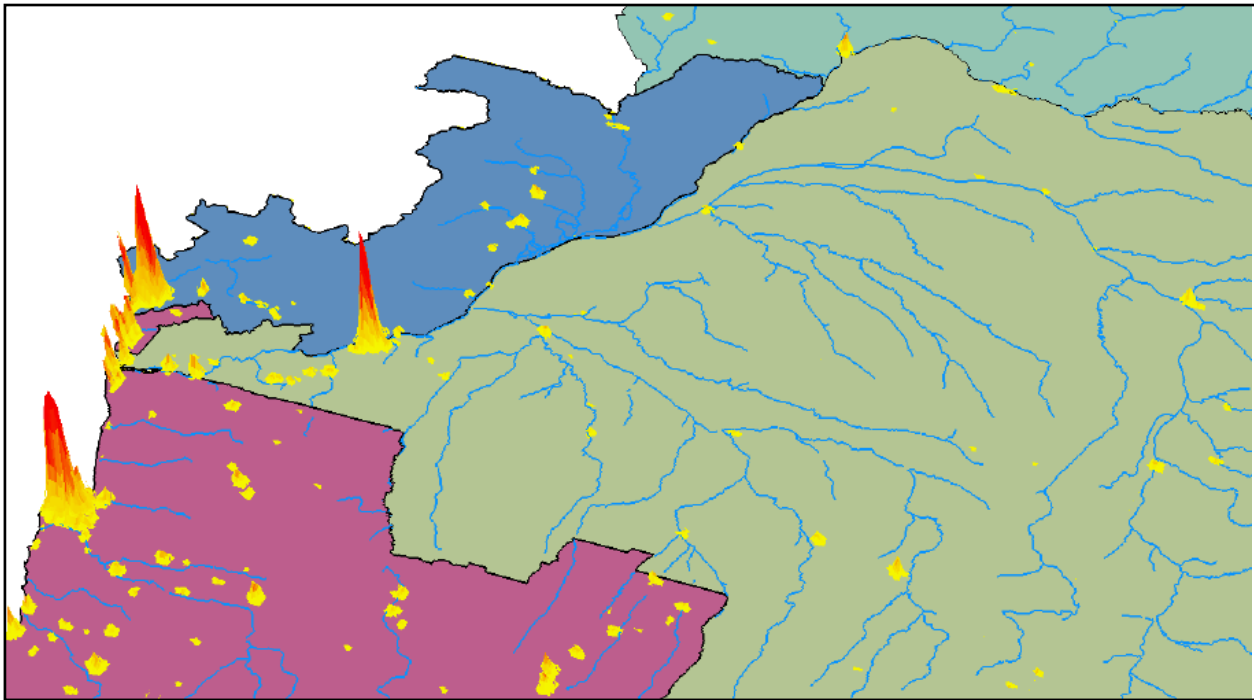
This report offers analysis based on new primary data and develops a set of policy recommendations. We first provide a descriptive account of the economies of the Lower Congo region. Such an exercise faces severe challenges due to an almost complete absence of systematic data, but we can nonetheless draw on some informative statistical information from international as well as local sources. In Section 3, we then present and analyze two data-collection efforts conducted specifically for the present report. In a first exercise, we compare retail prices in Kinshasa and Brazzaville as a gauge for the degree of market integration. Our second approach consists of a set of structured interviews among trading firms in Kinshasa and Brazzaville. These interviews allow us to calculate some rough estimates of latent trading potential between the two cities, and they point us towards the main existing constraints on the realization of this potential. We then provide more general discussions of the main barriers to cross-border integration in Section 4, focusing on river-based transport. Finally, Section 5 develops a set of policy recommendations, and Section 6 concludes.

2. CROSS-BORDER ECONOMIC EXCHANGES IN THE LOWER CONGO REGION

2.1 The Economic Geography of the Lower Congo Region

The Lower Congo region has only a few economic centers.³ The most apparent are the spatial concentration in the Kinshasa-Brazzaville area and the coastal region. Henderson *et al.* (2009) have introduced an approach of measuring economic activity in developing countries by using night light images taken from satellites.⁴ Figure 1 offers a three-dimensional representation of 2009 average night light intensities in Angola, CAR, DRC and RC. This map clearly shows the concentration of activity in Kinshasa-Brazzaville, Luanda, and along the Atlantic coast around the Congo delta (Soyo, Banana, Cabinda, Pointe Noire).⁵ Apart from the Kinshasa-Brazzaville conurbation, interior regions appear largely empty of night lights. Centers of economic activity as estimated by this methodology have been stable between 1992 and 2009.

Figure 1: Night Lights in the Lower Congo Region, 2009



Note: Countries to the north-west of RC are not shown.

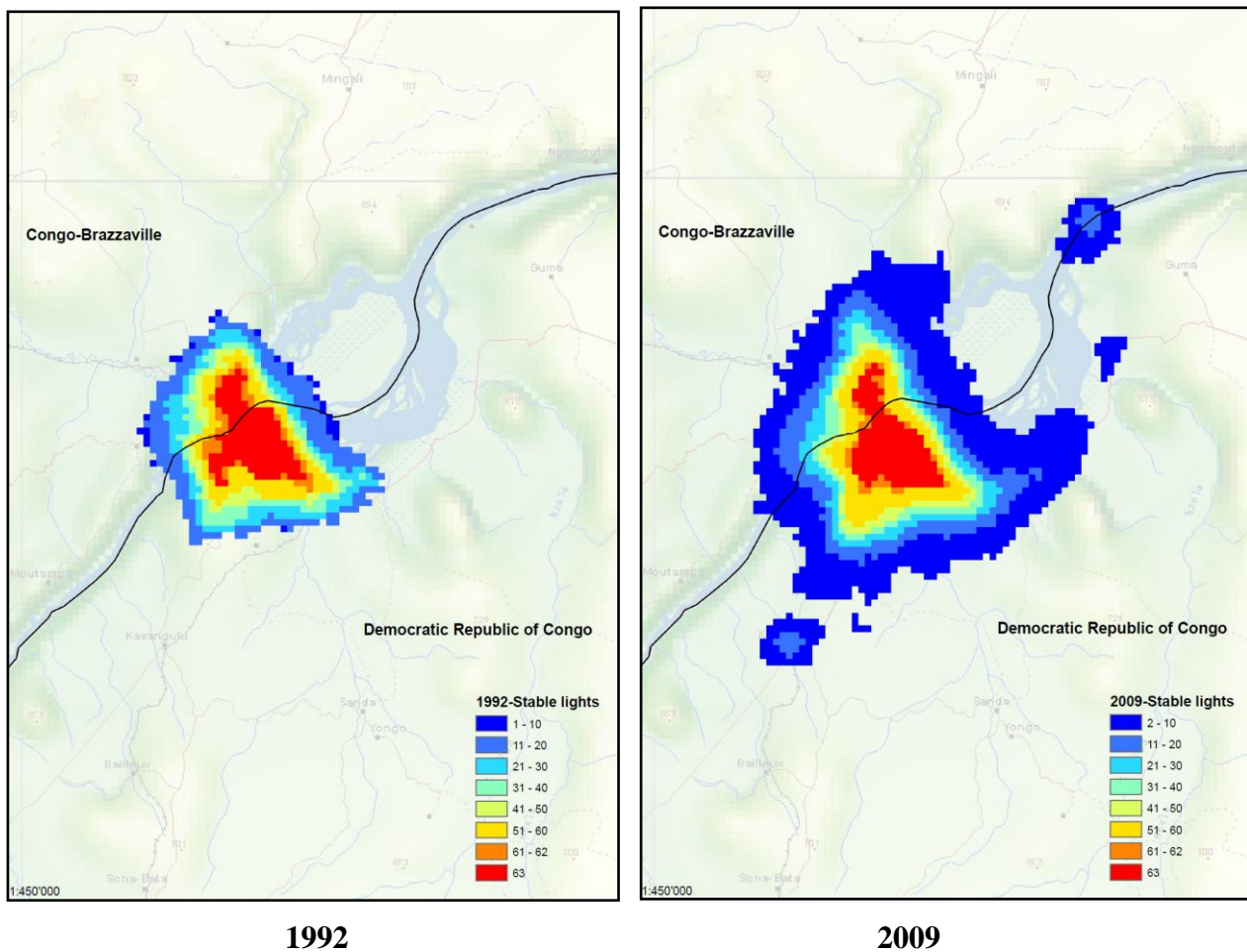
¹ For the purpose of this work, we define the Lower Congo Region as the provinces Bas-Congo, Kinshasa, and Bandundu in DRC, plus surrounding areas in RC and Angola.

⁴ Their study notably found that DRC official statistics (as reported in the World Development Indicators) have significantly underestimated Congolese economic growth as compared to evidence from tracking night light intensities. While, for the period 1992-2003, the official data report average real per-capita GDP growth of -0.26 percent, night lights imply positive growth of 0.24 percent. The DRC is thus the country with the world's largest discrepancy between officially recorded growth rates and growth rates inferred from night lights. This points towards exceptionally large underreporting of economic activity in the DRC.

⁵ Although an effort was made to filter out night lights from offshore oil rigs along the Atlantic, the coastal lights are probably still somewhat inflated by the effect of offshore lights.

Kinshasa-Brazzaville is now the third largest urban agglomeration in Africa, and predicted to become the largest African conurbation and the world's 11th largest city by 2015. With an international border running right across the Kinshasa-Brazzaville agglomeration, this regional hub of economic activity is the obvious focal point for cross-border exchanges between the two Congos. Figure 2 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.

Figure 2: Night Lights in Kinshasa-Brazzaville, 1992 and 2009



Kinshasa and its hinterland are critical to the DRC as a whole. Estimates presented in Table 1 indicate that the three provinces of Kinshasa, Bas-Congo and Bandundu account for 37 percent of DRC's GDP and a full 56 percent of its official imports, even though only 28 percent of the national population lives in this area.⁶ In terms of exports, however, the region is a relative minnow, with only

⁶ Note the difference in population estimates: while the United Nations (2010) reports a figure of 8.8 million, the World Bank (2009a) works with an estimate of 6.6 million. This discrepancy highlights the margins of error attached to official statistics used in this study.

17 percent of DRC official exports originating there. This pattern is particularly pronounced for Kinshasa, which accounts for over 21 percent of the nation's GDP but a mere 0.8 percent of its exports. While the explanation surely lies in the dominance of primary products in DRC's exports and Kinshasa's specialization in services, these numbers point toward untapped trade potential in the western DRC.

To sum up, the demographic and economic potential of Kinshasa and Brazzaville themselves, and their role as gateways for their economic hinterlands, demonstrate the importance of facilitating economic integration between the two capitals by removing constraints on exchanges between those cities.⁷

Table 1: *The Economic Weight of Western DRC, 2008*

Region	Population		GDP		Exports		Imports	
	mn people	% of DRC	USD bn	% of DRC	USD bn	% of DRC	USD bn	% of DRC
Kinshasa	6.6	10.8	4.1	21.3	0.06	0.8	5.29	47.7
Bas-Congo	3.5	5.8	1.8	9.4	0.95	13.7	0.49	4.4
Bandundu	6.9	11.3	1.3	6.5	0.20	2.9	0.40	3.6
Western 3	17.0	27.9	7.2	37.2	1.21	17.4	6.17	55.7
DRC	61.0	100.0	19.2	100.0	6.94	100.0	11.08	100.0

Source: World Bank (2009a). Formally declared trade flows only.

2.2 Trade in Goods and Services: DRC and RC

Quantifying trade flows in the region is challenging, as both Congos have not submitted official trade statistics in many years. The DRC has not produced official trade statistics since 1978, while the RC has not submitted data to COMTRADE since 1995. Moreover, much (by some accounts, most) cross-border trade occurs informally; and erratic customs procedures, especially with respect to the estimation of shipment values, complicate the interpretation of those data that are available. However, upon inspection of the available data, we believe that they are nonetheless informative. Formally declared trade, even if representing only a fraction of total trade, is important to the industrialized layer of the regional economy, and it represents one of the most important tax bases.

The main gateway for overseas trade to and from the Western DRC is the port of Matadi, which accounts for some two thirds of imports in value terms and more than four fifths in terms of weight (see Table 2).⁸ Certain shipments are sealed in Matadi to pass customs formalities in Kinshasa. Matadi therefore accounts for a considerably larger share of physical entry into the DRC than reported in Table 2. Kinshasa airport is also a significant entry point, accounting for some 10 percent of import values.

⁷ Recent research in economic geography indeed suggests that urbanization is a key engine of growth in developing countries, and that limits to the formation of urban agglomerations can constitute a severe obstacle to economic development (Deichmann *et al.*, 2008; Brühlhart and Sbergami, 2009).

⁸ We use data for 2007, as these statistics are more complete than those we received for 2008 and 2009. Table 2 most likely underreports the share of the ports of Boma and Banana/Kinlau. According to tonnage data for 2008 obtained from the logistics company SDV-Agetraf, the volume of imports entering through Boma and Banana/Kinlau amounted to 9 percent and 13 percent respectively of the volume of imports entering through Matadi.

Table 2: Main Entry Points for Imports in the Western DRC, 2007

<i>Customs office:</i>	% share of imports in terms of		
	<i>value</i>	<i>weight</i>	<i>transactions</i>
Matadi	65.05	84.17	65.20
Boma	0.02	0.02	0.06
Kinlau (fuel port)	0.54	0.65	0.32
Banana	1.22	0.16	0.57
Kimpangu (Angolan border)	0.00	0.00	0.00
Kinshasa Port (ONATRA freight port)	15.92	10.50	10.68
Kinshasa Airport	9.47	0.27	15.82
Kinshasa Beach Ngobila (ONATRA ferry port)	0.07	0.11	0.28
Other Kinshasa ports	7.72	4.12	7.07
<i>Total</i>	<i>100</i>	<i>100</i>	<i>100</i>

Source: own computations, based on data from DGDA.

Almost no DRC imports from RC find their way into official trade statistics. According to the data summarized in Table 2, the two customs offices likely to clear imports originating in neighboring countries, the ferry port Kinshasa Beach (RC) and Kimpangu (Angola), record next to no imports.⁹ Only ONATRA's Kinshasa freight port declares a significant volume of imports, accounting for some 16 percent of the value of Western DRC imports. Given that there is no formal upriver trade (with CAR and Cameroon) left, this points towards non-negligible formal imports from Brazzaville. These imports could be of two kinds: overseas imports that have been unloaded at Pointe Noire (RC) or Douala (Cameroon) and transited through Brazzaville, or imports of goods produced in RC. However, we could obtain detailed trade data only for Kinshasa Beach, not for the freight port. Detailed data obtained from DGDA show only five small RC-originated shipments recorded for all of 2007, representing but a fraction of a percent of Western DRC imports. Recorded volumes of imports that have transited through RC are somewhat larger, but also account for well under one percent of Western DRC imports. The main recorded DRC import goods from RC are fuel, vehicles, building materials, cement and mineral water.¹⁰

⁹ For Kimpangu, the 2007 statistics report a single shipment (USD 660 worth of beans). Most trade with Angola clearly is informal and therefore goes unreported. For Kinshasa Beach, see also Table 3.

¹⁰ Some DRC imports from RC are not recorded by DRC customs but by the port authority in Brazzaville (see Table 5).

Table 3: Composition of RC Imports from DRC, 2007

HS code	Products Description	RC imports from DRC		RC worldwide imports		DRC share in worldwide RC imports		product shares of RC imports from DRC	
		<i>weight (t)</i> (1)	<i>value (USD 1,000)</i> (2)	<i>weight (t)</i> (3)	<i>value (USD 1,000)</i> (4)	<i>weight (%)</i> (5)=100*(1)/(3)	<i>value (%)</i> (6)=100*(2)/(4)	<i>weight (%)</i> (7)	<i>value (%)</i> (8)
	<i>All goods</i>	79,164	17,968	2,703,483	1,597,524	2.93	1.12	100.00	100.00
2710191	Gasoline (diesel)	6,115	4,809	98,249	107,710	6.22	4.46	7.72	26.76
2710113	Gasoline ("super")	4,032	3,827	4,262	15,383	94.60	24.87	5.09	21.30
2523290	Cement	58,346	2,571	319,856	29,620	18.24	8.68	73.70	14.31
2710117	Gasoline (standard)	1,943	1,578	2,070	15,920	93.86	9.91	2.45	8.78
7010920	Glass bottles	855	753	1,514	1,360	56.46	55.34	1.08	4.19
8413810	Pumps	11	644	586	13,507	1.84	4.77	0.01	3.59
1101001	Wheat flour	3,450	539	34,734	14,651	9.93	3.68	4.36	3.00
9406000	Prefabricated buildings	45	528	895	7,714	5.00	6.85	0.06	2.94
1511900	Refined palm oil	878	369	18,128	11,136	4.84	3.32	1.11	2.06
7312109	Iron/steel wires/cables	23	255	389	3,616	5.83	7.06	0.03	1.42
1006301	Milled rice	679	138	18,823	6,365	3.61	2.17	0.86	0.77
8413910	Pump parts	63	104	194	8,503	32.39	1.22	0.08	0.58
9015800	Surveying instruments	52	97	179	6,975	29.03	1.39	0.07	0.54
3401110	Soap	27	84	1,139	1,013	2.34	8.28	0.03	0.47
3926909	Misc. plastic goods	22	67	260	1,031	8.61	6.49	0.03	0.37
2102100	Active yeasts	60	66	466	838	12.90	7.92	0.08	0.37
8711900	Motorcycles	7	58	41	101	16.88	57.29	0.01	0.32
8409990	Engine parts	9	56	641	2,585	1.40	2.18	0.01	0.31
0402290	Powdered milk	67	54	498	834	13.38	6.49	0.08	0.30
2905110	Methanol	20	52	496	654	4.03	8.00	0.03	0.29

Source: RC trade ministry.

Recorded RC imports from the DRC are only slightly more important, amounting to some 1.12 percent of total RC imports in value terms. Table 5 presents data obtained from the RC authorities and shows that imports from the DRC account for more than 10 percent of formal RC imports in only three goods: gasoline, glass bottles and motorcycles (see column 6 of Table 3). These data most likely tell us more about which types of goods are imported formally than about which types of goods are imported from DRC, as most cross-border trade simply seems to escape the regular control of the customs authorities. The overall figures are undoubtedly a large understatement of the true trade share and points toward considerable potential for an expansion of formal trade.

Officially recorded trade flows between the DRC and the RC are largely limited to transit trade flows, which seem to be increasing. According to official data supplied by RC authorities the weight of transit imports from DRC was about three times higher in 2007 than in the two preceding years, and transit trade seems to have increased further since. Briceño-Garmendia and Foster (2009) estimate the share of RC imports that transit through the DRC at some 8.6 percent. The data in Table 4, based on DRC statistics, also show some signs of a revival in transit trade since 2009. Official data certainly underreport the importance transit trade. The large informal flows of clothing and textiles from Brazzaville to Kinshasa, for instance, mostly originate in West Africa and arrive through Pointe Noire or Douala in Brazzaville. These large informal flows do not appear in any statistics.

Table 4: DRC-RC Transit Trade, 2007-2010

		2007	2008	2009	2010*
Value (USD 1,000)	DRC-RC	22,693	67,312	89,401	106,978
	RC-DRC	0	0	n.a.	17
Weight (tons)	DRC-RC	22,168	52,436	84,129	106,256
	RC-DRC	0	0	4,000	11,160
Shipments	DRC-RC	370	797	1,543	2,022
	RC-DRC	0	0	1	2

Source: DGDA.

Formal transit flows predominantly run from Kinshasa to Brazzaville (see Table 4). Brazzaville is partially supplied through Matadi and Kinshasa due to the poor condition of the rail and road infrastructure in RC. Rail freight fares from Pointe Noire to Brazzaville are 90 to 165 percent higher than average tariffs per ton-kilometer charged by other African rail concessions (Pozzo di Borgo, 2008), and the road can only be passed during the dry season. There are also reports of sporadic military threats from former rebels. Work is being undertaken to repair the Pointe Noire-Brazzaville road. This is scheduled for completion in 2012. The RC government is furthermore preparing the privatization and repair of the railway from the coast to the capital.

Port freight data point to customs underreporting but confirm general patterns of DRC-RC trade. Volumes at the port of Brazzaville had peaked in 1984 with 590,000 tons (of which 51 percent was wood from upriver) but amounted to a mere 373,000 tons in 2009 (of which 8 percent was wood, see Table 5). At the same time, the volume of official imports from the DRC to the RC, and data on transit flows through the DRC only add up to 101,000 tons, compared to the 343,000 tons of incoming traffic from Kinshasa reported by Brazzaville port. More than half of trade handled by the port of Brazzaville is in fuel and cement. The volume of shipments into Brazzaville exceeds that of shipments out of Brazzaville by a factor of about ten. Outbound shipments may suffer from particular

underreporting bias. According to information from the Kinshasa port authority (ONATRA) as well, the tonnage shipped from Kinshasa to Brazzaville exceeds that going from Brazzaville to Kinshasa, although according to their statistics by only around 40 percent. Hence, port data in Brazzaville and Kinshasa support our finding of the current dominance of the Matadi-Kinshasa-Brazzaville supply route relative to the Pointe Noire-Brazzaville-Kinshasa route.

Table 5: Composition of Inbound and Outbound Goods Traffic at the Port of Brazzaville, 2009

	From Kinshasa to Brazzaville		From Brazzaville to Kinshasa	
	<i>Tons</i>	<i>%</i>	<i>Tons</i>	<i>%</i>
Fuel	131,915	38.4	17,981	61.0
Cement	56,675	16.5	530	1.8
Flour	30,154	8.8	145	0.5
Wood	26,977	7.9	-	-
Foodstuffs	26,297	7.7	146	0.5
Building materials and gravel	7,860	2.3	2,253	7.6
Mineral water	6,282	1.8	472	1.6
Vegetable oil	6,114	1.8	-	-
Vehicles	4,912	1.4	5,464	18.5
Soap	4,340	1.3	-	-
Containers	2,991	0.9	76	0.3
Empty packaging	899	0.3	181	0.6
Sugar	756	0.2	0	0.0
Sheet metal	505	0.1	0	0.0
Chemicals	487	0.1	10	0.0
Ground nuts	483	0.1	-	-
Corrugated iron	314	0.1	5	0.0
Other	35,372	10.3	2,237	7.6
<i>Total</i>	<i>343,333</i>	<i>100.0</i>	<i>29,500</i>	<i>100.0</i>

Officially recorded goods only. Source: Port of Brazzaville (PABPS).

2.3 Passenger Traffic

Passenger traffic on the river is dominated by traffic across Malebo Pool, the river basin between Kinshasa and Brazzaville, with the total number of fare-paying river crossings estimated at around 212,000 annually.¹¹ Official data from the port authority in Brazzaville and from ONATRA in Kinshasa are presented in Table 6. Less than 5 percent of passengers arrive from or travel to upriver destinations. Oddly, according to these statistics, the number of passengers who arrive at Brazzaville

¹¹ According to estimates given to us by ONATRA, their ferry “Matadi” carries some 600 paying passengers per average workday. This would correspond to around 190,000 passengers per year. As some additional travelers cross on the much smaller CNTF ferry and on private speed boats, a reasonable estimate of the total number of fare-paying passengers crossing annually between the two capitals may be found by doubling the number of inbound passengers recorded by the port of Brazzaville, i.e. some 212,000 crossings.

port is about twice as large as the number of passengers who depart from Brazzaville – again pointing to considerable misreporting.

Table 6: Inbound and Outbound Passenger Traffic at the Ports of Brazzaville and Kinshasa, 2009

	<i>Passengers</i>	<i>% Passengers</i>		<i>%</i>
<i>Data by Brazzaville port:</i>	To Brazzaville		From Brazzaville	
Crossing from/to Kinshasa	101,510	95.6	50,733	94.8
From/to upriver	4,620	4.4	2,787	5.2
Total	106,130	100	53,520	100
<i>Data by ONATRA:</i>	To Brazzaville		From Brazzaville	
Crossing from/to Kinshasa	141,394	99.6	62,611	99.4
To/from upriver	520	0.4	400	0.6
Total	141,914	100	63,011	100

Officially recorded passengers only. Sources Port of Brazzaville (PABPS) and ONATRA.

The overall number of passenger crossings, around 700,000 annually, is extremely small compared the size of the two cities. According to ONATRA, fare-paying passengers represent somewhat less than a third of all crossings, as disabled travelers are exempt from paying the fare and many of them make a living from informal trading. This leads us to estimate for the total annual number of trips across Malebo Pool in the region of 700,000. As we show in Section 4, this volume of traffic, scaled to city sizes, is some 175 times smaller than the river-crossing passenger traffic in Kisangani. 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 Berlin Wall.¹²

3. ASSESSING THE POTENTIAL FOR CROSS-BORDER INTEGRATION: NEW EVIDENCE

How large is the potential for trade expansion across Malebo Pool? Compared to the two cities’ size, economic importance and role as gateway to the Lower Congo region, economic exchanges between Kinshasa and Brazzaville are extremely limited. Such limited observed trade could be the result of either substantial barriers to trade or a lack of tradable products. In order to investigate the reasons behind this limited trade, we assess the extent of existing and potential cross-border economic interactions in Kinshasa-Brazzaville using primary data collected for the purpose. We collect and compare retail price data on both sides of the river, testing for symptoms of market segmentation in the form of systematic price differentials that would indicate the existence of trade barriers. In addition, we analyze the results of structured interviews carried out with trading firms in both capitals for a qualitative assessment of barriers to trade, and for an estimation of the latent potential for trade expansion.

¹² 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 across Malebo pool represent about one crossing per 15 inhabitants of the Kinshasa-Brazzaville conurbation.

3.1 Price Survey

Design of Study

A systematic difference in retail prices for identical goods in two markets is probably the most reliable indicator of barriers to trade between those markets. Absent physical and regulatory barriers to trade, price differences will be arbitrated away. This is why we look at prices first.

For a rigorous comparison of prices on both sides of the river we selected 57 precisely defined products that allowed us to collect and compare prices for “identical” products. Even on Congolese markets, where the degree of product differentiation is considerably lower than in high-income economies, great care must be taken to compare like with like, i.e. to define meticulously the type and quantity of the good whose price is to be recorded. The 57 goods were chosen in close consultation with local experts so as to offer a representative sample of Congolese consumption baskets. The list of products and summary price statistics are given in Appendix 2.

Price data were collected carefully from representative samples of retail markets in both Kinshasa and Brazzaville. We relied on a local expert who recorded prices using a consistent methodology to make prices comparable among vendors, as prices are commonly determined through bargaining. Four large retail markets were selected in each city, two in the respective city center and two in the suburbs.¹³ We obtained some complementary price data from the RC Planning Ministry, collected in Brazzaville over the same time period as our own price data, and we consider these data points as our “ninth sample market”. Where possible, prices were recorded for each product from up to three vendors per market.¹⁴ Some of the Brazzaville prices were obtained from wholesalers, and are thus not directly comparable to the prices recorded at the retail level. All prices were recorded in local currency, between 26 August and 3 September 2010. We asked vendors for the origin of their goods, allowing us to classify the goods as locally produced, imported across the river, and imported from overseas. For our estimations, prices are converted into US dollars at the exchange rates prevailing locally in that period.¹⁵ Finally, for goods sold in known weight units, we expressed all prices in terms of dollars per kilogram.

Results

We use panel data regression methods to estimate systematic price differentials for identical products across markets. By using this technique, we can formally test the hypothesis that observed price differences across markets are systematic – i.e. “statistically significant” –, meaning that they cannot be explained by random price variation among individual vendors due to a myriad of reasons such as the time of day, the vendor’s available stock at the time of the transaction, the precise quality of the item(s) sold, the vendor’s location within a market, or the vagaries of the haggling process. Moreover, we can control for good-specific “fixed effects”, meaning that price differences across markets are estimated by using only differences within individual products, and thus by comparing like

¹³ Kinshasa center : Marché Central and Gambela; Kinshasa suburbs : Matadi-Kimbala and Liberté; Brazzaville center : Total and Poto-Poto; Brazzaville suburbs : Mikalou and Mongali.

¹⁴ We could not collect prices for each good in each market. While a balanced sample would comprise 1,539 observations (57 goods * 9 markets * 3 vendors), our maximum sample size is 970.

¹⁵ 1 USD = 910 Congolese francs; 1 USD = 511 CFA francs.

with like.¹⁶ We always include a binary control variable for prices collected from wholesalers, as they are not directly comparable to the prices collected from retail vendors.

Our analysis of prices in Kinshasa and Brazzaville retail markets points towards the existence of significant trade barriers. Imports from across Malebo Pool are consistently estimated to be more expensive than corresponding local products. Our most precisely measured differential, estimated over DRC exports to RC, is 20 percent. The detailed estimation results are shown in Table 7.

Price differences cannot be attributed to differences in local producer and distribution costs. This can be ascertained by comparing the prices of staple goods produced and sold locally on either side of the river without being traded across the border.¹⁷ If we were to observe a significant price difference for such goods, this would point to differences in economic conditions (systematically different producer and/or local distribution costs) combined with barriers to cross-river arbitrage. We therefore regress the log of observed prices of locally produced and locally sold goods on the binary variable *Brazzaville*, which is set to one for prices collected in Brazzaville and to zero for prices collected in Kinshasa, plus a fixed effect for each good and a binary variable that is set to one if the price in question is recorded from a wholesaler. The estimated regression coefficient shown in column (1) of Table 7 suggests that prices for the same locally produced good on average are 13 percent higher in Brazzaville than in Kinshasa. Importantly, however, this effect is not statistically significant, i.e. we cannot reject the hypothesis that this difference falls within the margins of random price variations among vendors and that prices are in fact equalized across the two cities. Hence, our data do not suggest there to be a systematic discrepancy in retail prices for local produce in Brazzaville and Kinshasa, implying that the underlying economic structures are very similar.

Shipping local goods the 3.5 kilometers across Malebo Pool from Kinshasa to Brazzaville is found to add more than a fifth to the retail price of these goods. This can be seen by considering only locally produced goods but including also products that are exported across the river. Since our sample of prices includes no goods that are produced in RC and sold in both Brazzaville and Kinshasa, we focus on goods produced in DRC and sold in both cities. Our sample includes ten such products.¹⁸ The estimates shown in column (2) of Table 7 provide evidence of market segmentation: DRC-produced goods are sold at a 20 percent premium in Brazzaville relative to their retail price in Kinshasa. This estimate is highly statistically significant and thus provides evidence of substantial trade barriers between the two cities.

At the same time, shipping goods from Brazzaville to Kinshasa also raises their prices. Again, our data sample contains no goods that are produced in RC and sold in both Brazzaville and Kinshasa, and therefore does not allow us to estimate the margin at which RC-produced goods are sold in Kinshasa via fixed effects. We therefore focus on products whose prices are expressed relative to their weight (i.e. per kilogram) and employ random effects estimation that take also differences between goods into

¹⁶ In order to allow us to interpret estimated regression coefficients as percentage differences, we transform prices (the dependent variable) into their natural logarithms. Thereby, any coefficient on a binary explanatory variable, D_{est} , is related to the implied percentage difference, $D_{\%}$, through the following function $D_{\%} = 100 * (e^{D_{est}} - 1)$.

¹⁷ Our sample goods that are produced and consumed locally on both sides of the river are cassava flour, cement, eggs, green beans, mineral water, palm oil, plantain, potato, sugar cane, sweet potato, tomato and wheat flour.

¹⁸ These products are body lotion, butter, cement, cooking oil, mineral water, palm oil, plastic chairs, sugar cane, washing powder and wheat flour. Four of these goods also appear on the list of locally-produced-and-locally-sold products (cement, mineral water, palm oil, sugar cane, wheat flour). This is possible because the Brazzaville price data distinguish between locally produced varieties and imported varieties. Hence, for instance, separate prices are recorded for cement produced in Loutete (RC) and cement imported from Lukala (DRC).

account. While this somewhat more involved approach yields rather imprecise estimates, the estimation suggests that trade costs also raise the price at which RC goods are being sold in Kinshasa.¹⁹

Significant price differentials are also found when we consider goods imported from overseas. Results taking account of all our sample goods, including overseas imports, are shown in columns (3) to (8) of Table 7. Several findings emerge:

- Brazzaville prices systematically appear to be higher than Kinshasa prices, across the range of regression specifications (Table 7, columns 3 to 8).
- Overseas imports are 38 to 67 percent more expensive than their domestically produced equivalents. (Table 7, columns 4 to 8). This difference is not a perfect measure of trade costs, but it is suggestive of continuing high overseas import costs, confirming estimates reported elsewhere (World Bank, 1991 and 2010c).
- There is no systematic difference in prices of RC-produced goods and their DRC-produced equivalents, on a given market. Coefficients on the binary variable *RC_good* are never statistically significant (Table 7, columns 5 to 8).
- Average prices are equalized within cities: no individual market offers systematically higher or lower prices than any of the other sample markets. Hence, market segmentation is diagnosed only between the two capitals, not within them.²⁰

Overseas imports appear on average to be sold more cheaply in Brazzaville than in Kinshasa.

This is implied by negative coefficient on the interaction term given by the product of the binary variables *Brazzaville* and *Overseas_good* (Table 7, columns 7 and 8). On the face of it, this finding runs counter to the dominance of the Matadi-Kinshasa-Brazzaville route over the Pointe Noire-Brazzaville-Kinshasa route suggested by the official data (see Section 2.2). One explanation could be that this result is too imprecise to be afforded much weight. Indeed, in one specification, the relevant coefficient is not statistically significant, and in the other specification it is borderline significant (at the 90 percent confidence level). However, in view of the high costs of crossing Malebo Pool, prices for import goods would be expected to be higher in Brazzaville than in Kinshasa if Matadi indeed were the main entry point. That we find the reverse pattern, even though somewhat imprecisely estimated, is quite remarkable and another pointer towards large undocumented imports to Brazzaville via Pointe Noire and Gabon/Cameroon, and attendant unexploited scope for transit trade to Kinshasa via Brazzaville.

Overall, our results suggest that trade facilitation across Malebo Pool would lower prices in both cities, with particular scope for falls in import prices in Kinshasa and for falls in prices of local produce in Brazzaville. The 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.

¹⁹ Details on the random effects estimations can be obtained from the authors.

²⁰ Due to space limitations, the estimations with market fixed effects are not shown in Table 7.

Table 7: Price Differences Between Kinshasa and Brazzaville – Panel Regression Estimates

	only locally produced and consumed goods	only DRC- produced goods	all goods					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Brazzaville</i>	0.13 <i>0.11</i>	0.20*** <i>0.05</i>	0.09 <i>0.06</i>	0.09* <i>0.05</i>	0.09 <i>0.06</i>	0.05 <i>0.07</i>	0.16** <i>0.08</i>	0.22*** <i>0.05</i>
<i>Overseas_good</i>				0.34*** <i>0.01</i>	0.34*** <i>0.01</i>	0.33*** <i>0.01</i>	0.41*** <i>0.07</i>	0.46*** <i>0.06</i>
<i>RC_good</i>					0.01 <i>0.10</i>	0.01 <i>0.10</i>		-0.09 <i>0.08</i>
<i>Brazzaville * Overseas_good</i>							-0.12 <i>0.11</i>	-0.17* <i>0.09</i>
<i>Brazzaville * RC_good</i>								(not identified) [†]
<i>Wholesale_price</i>	-0.22*** <i>0.05</i>	-0.15*** <i>0.05</i>	-0.16*** <i>0.03</i>	-0.16*** <i>0.03</i>	-0.16*** <i>0.03</i>	-0.12*** <i>0.02</i>	-0.17*** <i>0.03</i>	-0.16*** <i>0.03</i>
Fixed effects for goods	yes	yes	yes	yes	yes	yes	yes	yes
Random effects for goods	no	no	no	no	no	no	no	no
Fixed effects for markets	no	no	no	no	no	yes	no	no
Within-R ²	0.06	0.13	0.04	0.06	0.06	0.08	0.07	0.08
<i>N</i>	356	283	970	970	970	970	970	970

Notes: heteroskedasticity consistent standard errors in italics; */**/***: significant at the 90/95/99% level; †: effect not identified in fixed-effects model but identifiable in random-effects model

3.2 Survey of Trading Firms

Design of the Study

In order to estimate the potential for trade expansion generally, and across Malebo Pool more specifically, 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 are, or were in the past, engaged in cross-border economic activities, be it in the form of trade in goods or in the form of passenger transport. Conditional on this criterion, we sought to cover as representative a sample of firms as possible, covering the full spectrum of relevant economic activities.

We obtained interview answers from 57 firms, 17 of which are manufacturers, 19 are based in Brazzaville, and 12 are informal.²¹ The average sample firm has 238 workers. However, the size distribution is highly skewed, the median being 14 workers, and 16 sample firms being one-person organizations. Only four of the 57 firms are engaged in the transport of passengers, which means that our statistical analysis of the survey answers will have to be confined to analyzing trade in goods. 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 of trade liberalizing measures on their activities. Interviewees were promised strict confidentiality, which is why we present no information in this report that could be traced to individual firms.

Results: Quantitative Analysis

Firms overwhelmingly expect to increase the volume of international trade in response to a fall in costs of importing and exporting. We came to this insight by asking firms to estimate the medium-term percentage impact on the volume of their cross-border trade of four hypothetical scenarios:

- a 50-percent fall in transport costs on exports/imports to/from all foreign markets,
- a 50-percent fall in administrative trade costs on exports/imports to/from all foreign markets,
- a 50-percent fall in border delays impeding exports/imports to/from all foreign markets,
- a 50-percent fall in total trade costs on exports/imports to/from Kinshasa/ Brazzaville.

Table 8 presents mean and median projections in response to our hypothetical questions. Given the small sample sizes and strongly skewed responses in some cases, we consider medians to be more informative than means. Since most firms provided answers only to the questions that touched on their already existing activities, we state the number of respondents in each cell.²²

The main constraints on international trade flows appear to be due to the cost of physical transport and to administrative costs, with an elasticity of trade volumes to trade costs of about 0.5. All but one our sample firms expected to increase the volume of cross-border trade in response to a fall in trade costs.²³ Although many firms complain about delays due to inadequate

²¹ Since the number of formal firms is limited and the distribution of informal firms is unknown, rigorously randomized sampling was not possible. We therefore relied on local consultants to approach a representative selection of organizations, and we are satisfied that the sample thus retained, while inevitably somewhat *ad hoc*, does not suffer from any systematic selection bias.

²² We also asked our sample firms to predict the effect of a fall in the costs of upriver trade with Bangui, but only few firms replied to this and most of them stated that this would make no difference to their activities.

²³ The sole negative projection was made by one of the private suppliers of rapid passenger crossings across Malebo Pool (“canotier”), who predicted that a 50-percent reduction in general costs of passenger transport would halve his volume of passengers. This points to the existence of potential losses from cross-border liberalization by firms currently benefitting from the existing restrictions.

port facilities and inefficient customs procedures, the main constraints on international trade flows appear to be due to transport costs and administrative costs. Our survey evidence suggests that a 50-percent reduction in either of these costs would boost the volume of trade by about a quarter, thus implying an elasticity of about one-half.

Table 8: Predicted Trade Expansion – Cross Tabulation

		Percentage increase in trade volume predicted for 50-percent fall in:		
		Transport costs	Administrative costs	Border delays
All exports	Mean	102	79	12.5
	Median	37.5	25	5
	<i>N</i>	12	12	10
All imports	Mean	31	39	17
	Median	20	25	10
	<i>N</i>	36	39	29
Trade Kinshasa → Brazzaville	Mean	51		
	Median	40		
	<i>N</i>	19		
Trade Brazzaville → Kinshasa	Mean	41		
	Median	12.5		
	<i>N</i>	8		

A general fall in trade costs would stimulate DRC and RC exports more than it would stimulate their imports. Interestingly, the results shown in Table 8 suggest that the sensitivity of trade volumes to trade costs is somewhat larger for exports than for imports. Hence, trade facilitation would be beneficial for both countries' balance of trade.

The strongest predicted response to lower trade costs is for exports from Kinshasa to Brazzaville, with an implied elasticity of 0.8. A halving of trade costs is predicted by our sample firms to trigger a 40-percent increase in the volume of trade. Hence, a reduction in trade barriers would pay particularly rich dividends if applied between the two capital cities. Table 8, however, also suggests that there is greater latent potential for exports from Kinshasa to Brazzaville than in the other direction.

Our findings imply that cuts in tariffs and transport prices could be revenue neutral. The true potential for trade expansion comes from three sources: expansion of existing trading relationships, opening of new trade routes by existing operators, and entry of new operators. By considering almost exclusively the first source of trade changes, our approach implies a certain status-quo bias and must therefore be considered as yielding lower-bound estimates. In view of this, our computed trade elasticities of up to 0.8 (for Kinshasa-Brazzaville trade) can be taken as pointers to large latent potential for trade expansion. Importantly, given the in-built downward bias, our estimated elasticities may well be compatible with true elasticities of one, meaning that any cut in trade costs would be offset by an equiproportional increase in the volume of trade. If the true elasticity were even larger than unity, something that appears entirely possible given our estimates, tariff cuts could even yield increases in tariff revenue.

Regression analysis offers a more rigorous evaluation of survey responses and confirms our findings based on simple cross tabulations. The summary statistics reported in Table 8 do not allow us to test whether observed differences in projected trade responses are statistically

significant or whether they are more likely to be the result of random sampling variation. This is why we again resort to regression analysis, which allows us to formally explore hypotheses about average trade responses. Our dependent variable in this analysis is the percentage increase in predicted trade volumes for a 50-percent fall in trade costs. As explanatory variables we consider whether the firm in question is based in Brazzaville (as opposed to being based in Kinshasa), whether it is formally registered, whether it is a local manufacturing firm (as opposed to be a pure importer or exporter), whether the trade cost considered is a fall in transport costs or in administrative costs (as opposed to a reduction in customs delays), and whether the trade flow in question is an export (as opposed to an import). In addition to these binary variables, we consider the size of the firm (in hundreds of workers) as a continuous regressor. Since firm size is not known for all sample firms, we show regressions with and without inclusion of that variable.

Table 9: Predicted Trade Expansion – Regression Estimates

Independent variables:	Dependent variable = percentage increase of X predicted for 50-percent fall in trade costs			
	X = total international trade		X = Kinshasa ↔ Brazzaville trade	
Brazzaville-based firm	-1.7 <i>14.0</i>	-3.9 <i>14.1</i>	37.7** <i>17.2</i>	60.1** <i>24.9</i>
Formal firm	25.6** <i>12.44</i>	13.5 <i>14.2</i>	8.2 <i>19.1</i>	8.4 <i>20.7</i>
Manufacturing firm	-3.5 <i>12.7</i>	-4.8 <i>11.4</i>	133.0*** <i>25.2</i>	67.6** <i>31.5</i>
Fall in transport cost	26.5** <i>11.6</i>	33.7*** <i>12.1</i>		
Fall in admin. trade cost	31.6*** <i>11.9</i>	34.4*** <i>11.2</i>		
Exports	37.9** <i>17.7</i>	39.7** <i>18.4</i>		
Firm size	0.2 <i>1.1</i>		-5.3*** <i>1.5</i>	
Kinshasa → Brazzaville			5.1 <i>14.5</i>	-5.9 <i>21.6</i>
Constant	-13.5 <i>20.0</i>	-3.5 <i>20.1</i>	2.3 <i>20.0</i>	-4.5 <i>22.7</i>
R ²	0.11	0.12	0.59	0.18
N	129	138	26	27

Notes: firm size in terms of hundreds of workers; heteroskedasticity consistent standard errors in italics; */**/***: significant at the 90/95/99% level

We again find that a general fall in trade costs would stimulate exports more than it would stimulate imports. The first two columns of Table 9 report regression results for total international trade, i.e. primarily overseas trade via Matadi and Pointe Noire. The coefficient on *Exports*, a binary variable set to one for predicted exports and to zero for predicted imports, shows that 50-percent reduction in external trade costs would stimulate Congolese exports up to 40 percentage points more than it would increase the volume of imports. With exports being more elastic relative to trade costs than imports, trade liberalization would serve not only to increase the volume of international trade but also to improve the trade balance of DRC and RC. The regression estimates furthermore

suggest that Kinshasa and Brazzaville firms are not significantly different in their predicted responses to lower trade costs. No such differences appear between manufacturing firms and pure trading firms, and between large and small firms, either. The regression analysis confirms the finding of Table 7 that transport costs and administrative trade costs are bigger obstacles to trade than border delays, but the difference between those two is not statistically significant. Finally, we find some evidence that formal firms are more responsive to falls in overseas trade costs than informal firms.

Trade facilitation across Malebo Pool appears to hold particular promise for promoting local manufacturing and small-scale currently informal activity. In the last two columns of Table 9, we concentrate on trade flows across Malebo Pool, without distinguishing different types of trade facilitation. Unlike in the case of total trade, formal firms do not stand to expand their activities more than informal ones in response to trade liberalization across Malebo Pool. The estimated regression coefficient on firm size even suggests that smaller firms anticipate expanding their activities proportionally more than larger firms, perhaps because larger firms are already better able to circumvent trade barriers. Finally, we find very large and statistically significant regression coefficients on the binary variable “manufacturing firm”. This means that local producers anticipate much larger scope for inter-city trade expansion than pure trading firms.

The predicted impact of trade facilitation across Malebo Pool is larger for Brazzaville-based firms than for Kinshasa-based firms. This is not surprising given that Kinshasa is a considerably larger market, and hence the scope for cross-border expansion relative to their home market is significantly larger for RC firms than for DRC firms. However, we find no significant difference in predicted flows from Kinshasa to Brazzaville relative to those in the reverse direction (see the coefficients on *Kinshasa*→*Brazzaville* in Table 9). This implies that trade facilitation between Kinshasa and Brazzaville would lead to a balanced expansion of trade flows in both directions.

Results: Qualitative Findings

The non-quantifiable survey answers shed additional light on the existing patterns of trade and transport, as well as the main constraints to the expansion of cross-border exchanges. They offer complementary insights into economic exchanges between Kinshasa and Brazzaville through the eyes of local operators.

Brazzaville is currently considered a negligible market for most firms in Kinshasa, but responses point towards large untapped trade potential overall, and towards very large untapped potential for formal trade. Of the 38 Kinshasa-based firms, only 17 declared significant sales in Brazzaville, ranging from 1 to 25 percent of turnover. The average share of 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 is another pointer towards 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 sell to their Brazzaville-based customers in Kinshasa and get their clients to ship the goods across Malebo Pool. 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. Such trade occurs both on the ONATRA/CNTF ferries and on pirogues.

The responses to the structured interviews point towards very high trade barriers across Malebo Pool. Trade barriers are not only implied by the reported low levels of cross-border economic activity but they are vividly described by the majority of our interviewees. These confidential responses offer us useful information for the description of barriers to cross-border integration in the following Section.

4. BARRIERS TO CROSS-BORDER INTEGRATION

The cause of low cross-border economic activity is not an absence of latent trading potential but the existence of high cost to cross-border exchanges. In this Section, we seek to identify the specific constraints, focusing on transport across and along the river Congo. We considering the whole range of factors that determine trade costs, including trade policy, public administration and market structure.

4.1 Malebo Pool: Choked by a Duopoly

The Kinshasa-Brazzaville crossing offers the most important cross-border trade link in the Lower Congo region. If the cost of transport across Malebo Pool could be reduced, cross-border demand for local produce, which we have found in Section 3 to be more sensitive to trade costs than demand for overseas imports, is likely to rise too, thus stimulating economic activity on both sides of the river. This crossing connects the two nations' capitals, with a combined population of around 10 million, and both of which serve as hubs for their hinterlands (see Section 2). It therefore holds the key to facilitating trade of local produce between the two cities and countries. Moreover, a good transport link between the two capitals can act as a form of insurance: with ongoing security concerns in Bas-Congo and in western RC regions, a good cross-river link allows both capitals to route their trade alternatively through Matadi or Pointe Noire – or, if needed, even through Luanda or Douala.

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 the ferries is estimated at USD 68.80 (see Table 10). However, this is an inevitably imprecise exercise. Costs stated by interviewees vary widely, due largely to unpredictable and inconsistently applied schedules, to a multitude of fee-charging “services” with inconsistent presence and enforcement, and to widespread evasion and corruption. Most traders report the systematic payment of bribes to various officers (“dessous de table”), the net effect of which seems to be a reduction in the total cost to the traveling public. Furthermore, some of the administrative costs listed in Table 10 may not be incurred for every trip, and disabled passengers travel at reduced rates. Frequent traveler discounts are not officially available.

The cost of a return trip across Malebo Pool can be estimated at some USD 40, equivalent to between 40 and 80 percent of the average monthly income earned by Kinshasa residents.²⁴ 20,000 CFA francs 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 10, still costs about half of a ferry crossing, mainly because of payments

²⁴ From Table 1, we estimate an average monthly per-capita income in Kinshasa of approximately USD 50.

claimed by police and military officers. To put this figure 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 10: Estimated Cost of Passenger Crossing between Kinshasa and Brazzaville (in USD)

	From Kinshasa to Brazzaville			From Brazzaville to Kinshasa		
	Ferry	Fast boat ("canot")	Dugout canoe	Ferry	Fast boat ("canot")	Dugout canoe
One-way fare	12.10	25.00	2.80	10.80	21.60	2.80
Travel document ("laissez-passer") at origin	5.00	5.00		5.90	5.90	
Search ("jeton fouille") at origin	2.00	2.00		2.00	4.70	
Port fee ("redevance portuaire") at origin	2.70			2.40		
Vaccination card at origin	1.60					
Various fees and taxes at destination	12.50	15.00		11.80	16.00	
Police/military at origin ("droit de passage", "commissé" etc.)			4.70			9.80
Police/military at destination ("droit de passage", "commissé" etc.)			5.00			7.60
<i>Total</i>	<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

Trading firms consider the existing transport infrastructure grossly inadequate. Only two ageing ferries are in operation: ONATRA's "Matadi" and a smaller vessel operated by CNTF, both of which make two daily return trips. Normally, the 120-ton "Matadi" carries some 2,000 passengers a day, of which 600-700 pay a fare, and a small number of vehicles. However, the "Matadi" had to be taken out of service by the end of June 2010 and replaced with the smaller vessel "Ikanda", because of safety concerns, further reducing capacity. CNTF's ferry is considerably smaller still. In recent years, the two ferry operators have granted a fixed number of concessions to private transport firms, who run small passenger speed boats ("canots") between the two cities for a fee paid to the ferry operators (for which, they claim, they receive no services in return). As evident from Table 10, the prices of travel in fast boats are prohibitive for most residents.

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 between 8 a.m. and 12 p.m. on Sundays.²⁵ Some frequent travelers furthermore complain about unpredictable port closures due to passing politicians. The poor organization of the ferry ports ("Beaches") and transport facilities adds to high transport costs and limited capacity. Traders and simple travelers are not treated separately, which complicates customs procedures and increases opportunities for rent

²⁵ This is a severe constraint for delivery of fresh produce, forcing many traders to make night-time trips by dugout canoe. Furthermore, it makes it impossible for residents of one city to use the airport of the other city for flights arriving in the afternoon or evening. Long-time residents still remember the days when it was common to travel across the river and back for late-afternoon football matches.

extraction by officials, who are generally described not only as corrupt but as aggressive and downright violent. Many of the traders who use the ferries complain about the absence of closed storage space for goods, exposing their merchandise to damage and theft. Female passengers in particular complain about rough treatment. 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. Despite the heavy-handed controls, a large number of “clandestins” find their ways onto the ferries, sometimes in turn disturbing regular travelers and leading to overcrowding.

Shipping goods across Malebo Pool is very costly as well. Given differences across different types of goods and inconsistent application of fee schedules, it is even more difficult to extract a cost estimate for goods transport from the survey responses we collected than it is to estimate the cost of passenger crossings. Costs reported by traders range from 3 to 30 percent of FOB values. The World Bank (2010) calculated an estimate of USD 15 per ton for barge transport and USD 26 for border delay costs. High costs of goods transport result from the necessary changes in the mode of transport, problems with dredging the ports, and the fact that only a few ports on the Kinshasa side are allowed to transport goods to Brazzaville. Some of these ports urgently need infrastructure investments as handling equipment is inefficient or lacking. However, administrative hurdles appear to represent the main cost factor. Private ports that are allowed to transport goods across Malebo Pool belong to the ONATRA port in terms of customs administration, and consequently suffer from similar administrative delays.

The observed high prices and low capacity largely result from the duopoly granted to the two national operators, ONATRA, and the CNTF. A convention signed by the two governments under the auspices of CICOS in 2005 attributes exclusive rights over the Brazzaville-Kinshasa route for passenger traffic to the two state-owned transport companies.²⁶ Objections to the duopoly go beyond purely economic reasons. In the words of one high-ranking Brazzaville government official: “il est aberrant que deux sociétés se partagent un fleuve qui appartient à tout le monde”. Despite their officially sanctioned privileges, the two operators appear to be unable 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 lie in uncompetitive market structure coupled to poor management of the dominant operator. Box 2 shows that the situation at Malebo Pool is not unique in this regard.

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 again 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

²⁶ “Convention d’exploitation du Pool Malebo entre la République du Congo et la République Démocratique du Congo”. Signed on 22 November 2005. Another state-owned enterprise, SOCATRAF, seems to hold an official monopoly over upriver traffic to Bangui.

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. The European Union is poised to invest EUR 10 million in the rehabilitation of the Port of Brazzaville (PABPS), and EUR 5 million in the dredging of its access channel by the joint RC and CAR river authority SCEVN.

Trade and transport in the Lower Congo region generally appear to be hampered more by constraints on competition than by deficiencies in transport infrastructure. Transport costs are high not only on the Congo river. The World Bank (2010c) finds that the largest obstacle to cross-border commerce is posed by costly transport. For a representative consignment imported to Kinshasa via the harbor at Matadi, for instance, the World Bank (2010c) estimates that harbor fees amount to some 40 percent of the FOB value, while road transport from Matadi to Kinshasa adds another 90 percent of the FOB value. We do not know how much of the high transport cost is due to poor infrastructure and how much is due to a lack of competition among haulers. However, there are good reasons to expect constraints on competition to be key. The port of Matadi is run by ONATRA, who exploit their quasi-monopoly over DRC overseas imports by charging steep fees. The road from Matadi is reported to be in reasonable condition (Vircoulon and Lagrange, 2008), and the railway line is also operational. It must be suspected that the steep prices are due to some extent to informal payments owed and hefty profits earned by haulage companies – factors found by Teravaninthorn and Raballand (2009) generally to contribute more to high transport prices in Sub-Saharan Africa than poor transport infrastructure. These high costs further constrain the scope for transit trade that would allow the Matadi-Kinshasa, and Pointe Noire Brazzaville corridors to fully compete to supply the Kinshasa/Brazzaville conurbation.

Box 2: Inefficient Ferry Operation at Simi Simi

We have studied an important crossing of the Congo tributary river Lindi at **Simi Simi**, some 10 kilometers west of Kisangani. That ferry too was donated by the EU in 2008 and is now operated by the public agency Office des Routes. The price of crossing is USD 30 or 30 liters of fuel. Activity is commensurately infrequent, with at most three to four rotations per day (mostly carrying vehicles of NGOs, University of Kisangani researchers, doctors and district officials). The ferry sometimes goes for entire weeks without making a single crossing. The majority of travelers therefore cross by paddle dugout canoe. This seems to be another example of excessively high pricing by a monopoly operator choking off traffic. And, given the potential for trade between Kisangani and the rural areas to its west, it represents another economically costly transport bottleneck - due to a market inefficiency rather than to a lack of physical infrastructure.

Customs procedures Kinshasa and Brazzaville border posts are reported to be cumbersome. While, in the DRC, some limited improvements have occurred recently with the introduction of the one-stop “guichet unique” at Matadi and N'Djili (see World Bank, 2010c), this system has not yet been introduced at the Beach in Kinshasa. There is also no preferential trade agreement between the two Congos even though both are member of ECCAS (see Box 3). This means that all goods transported across the river in principle have to pay the full customs duties. The number of agencies and institutions involved at ports is in direct contradiction to a Presidential decree of 28 March, 2002, stating that only OFIDA (now DGDA), OCC and DGM are entitled to be present on official

border posts. However, up to 17 agencies are said to operate at the Beach Ngobila in Kinshasa. The DRC's main employer organization, FEC, has repeatedly brought the issue of paying fees without corresponding service to the attention of the Ministry of External Trade. Fear of foregoing income opportunities and relevance has led to strong resistance by relevant agencies to withdraw from border sites in line with the Presidential decree.

Box 3: DRC Trade Policy

The DRC's official schedule of import duties consists of four tariff bands of 0, 5, 10 and 20 percent with a simple average of 12.3 percent. Tariffs for raw materials and intermediate products are lower than those for consumer goods, while capital goods are taxed with lower rates of 7.4 percent on average according to the statutory rates. Changes to the tariff schedule are made upon proposal by the Tariff Committee to the Ministry of Finance.

The simplicity and moderation of the statutory tariff code is offset by a range of additional border levies, customs delays and bureaucratic vagaries. In fact, customs duties represent only a relatively small share of the administrative and economic costs of importing to or exporting from the DRC. Excise duties are levied on numerous products at the ports, and imports have to pay a sales (turnover) tax of between 3 and 13 percent. More importantly, various agencies present at border posts collect a multitude of levies cloaked as "service fees" even though corresponding services are not necessarily rendered (for more detail see World Bank, 2010c).

DRC is a member of three regional integration organizations but shows only limited commitment and/or capacity for implementing regional integration initiatives. DRC is a member of, the Economic Community of Central African States (ECCAS), the Common Market for Eastern and Southern Africa (COMESA), and the Southern African Development Community (SADC). All neighboring countries in the West (Central African Republic, the Republic of Congo, and Angola) are also members of ECCAS. They too are members of multiple other regional integration organizations. DRC has repeatedly asked SADC for moratoria on FTA implementation. Similarly, DRC has asked for moratoria to implement any COMESA commitments.

In principle, the ECCAS free trade area should facilitate cross-border trade in the Lower Congo region, but effective economic implementation remains limited here as well. ECCAS is one of the pillars of regional integration identified by the African Union and was established in 1993 between the members of CEMAC and the Economic Community of the Great Lakes States (CEPGL), as well as Sao Tome and Principe. Angola joined in 1999. However, the envisaged removal of tariffs on intra-regional trade are yet to be implemented, with ratification by the DRC still pending.

The establishment of full customs unions looking rather unlikely in the near term, the DRC could currently start by implementing preferential free trade for locally produced goods with regard to all regional integration agreements. Coordination among the three DRC ministries (Ministry of External Trade, Ministry of Finance, and Ministry for Regional Cooperation) involved in such negotiations is weak. Currently, the Ministry of Finance through DGDA seems to be the most active branch of government in this matter. Partially encouraged or motivated by the ongoing negotiations among the former ACP states and the EU on asymmetric free trade agreements, some consolidation in these regional arrangements is currently on the agenda. DRC is negotiating an agreement with most but not all ECCAS members. However, there seems to be considerable political private-sector willingness in DRC to focus regional integration efforts on SADC. While SADC and COMESA (and the EAC) are moving closer together through the Tripartite FTA, the DRC will ultimately have to decide whether it will join a Tripartite or an ECCAS customs union.

Inefficient administrative procedures encourage the levying of “facilitation payments”. Such payments may lower actual border costs below the statutory level (to the extent that statutory fee tariffs are even published), but they still raise border costs beyond the cost of customs duties, they reduce income for public purse, and they offer substantial competitive advantages to well-connected traders. Exemptions are often granted on an *ad hoc* basis, with DRC customs estimating that exemptions amounted to almost 30 percent of tariff revenue in the first half of 2009 (World Bank 2010c).

Cumbersome procedures have to be incurred in Matadi as well as in Kinshasa, further reducing the scope for transit trade - and consequently for competition along the two supply corridors to the Kinshasa/Brazzaville agglomeration. Substantial costs are incurred at Matadi port and along the transport corridor, even though the transit arrangements for goods destined for Brazzaville seem to work reasonably well.²⁷ Border levies can easily represent an additional 15 percent of duty on top of customs duties, excise duties, and turnover tax. Taken together, these costs are estimated to increase the costs of a representative shipment more than three times by the time it arrives in Kinshasa. According to the World Bank (2010c), handling fees at Matadi are some 50 to 100 percent higher than in comparable African ports, and transshipment costs from Pointe Noire to Matadi on smaller vessels drive up import costs further.

4.2 Kisangani: How It Could Work

Kisangani, a city located on either side of the Congo river but not divided by a national border, offers a useful point of comparison to Malebo Pool. As we have shown, entry into the transport market across Malebo Pool is tightly restricted, red tape and mismanagement at river ports abound, and the costs of crossing are commensurately high. This is not an inevitable state of affairs for river crossings in central Africa, as a comparison case study for the second-most important crossing of the Congo river, at Kisangani, shows. Kisangani has an estimated population of somewhat over 800,000, making it around a twelfth the size of Kinshasa-Brazzaville. While Kinshasa-Brazzaville marks the western end of the main navigable reach of the Congo, Kisangani lies at its eastern extremity, at the foot of rapids. We base this section on a detailed report written by Yves Birere.

Cross-river passenger traffic in Kisangani is 175 times larger in per capita terms than in 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. For comparison, our estimate of the number of trips across Malebo Pool is 0.7 million.

Crossing the river Congo in Kinshasa-Brazzaville is about 300 times more expensive than crossing it in Kisangani, 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 per

²⁷ Officially, goods in transit do not pay the DRC turnover tax (*impôt sur le chiffre d'affaires*, ICA) but have to pay for handling, unloading, and transport. When transit goods are transported by operators approved for bonded truck delivery (“*Transporteurs agréés de transport sous douane*”), no bond has to be paid. When transit consignments are transported by another operator, a bond calculated as the estimated customs duty plus 25 percent needs to be paid. This bond is then reimbursed to the transit company once the customs office at Brazzaville confirms to the DRC customs office that the goods have arrived. It is unclear how long it takes before such bond payments are reimbursed to transit transporters.

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. In Kisangani too, some passengers, called “les ayants droit”, are exonerated from paying the fare. These include the disabled, the police, soldiers, nurses and Red Cross workers. While disabled travelers according to some estimates account for two thirds of passengers in Kinshasa-Brazzaville, their share in Kisangani is estimated at some ten percent. This shows that river crossing is significantly more affordable to the general population in Kisangani than it is on Malebo Pool. (For details on the organization of river-crossing traffic in Kisangani, see Box 4.)

Box 4: 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, with the whole fleet divided into two groups, allowed to operate on alternating days. 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. The public agency “Office des Routes” operates a passenger ferry and a car ferry, and the association of private operators ANAFLUKIS coordinates a fleet of some 140 motorized dugout canoes.

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, which 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 at least 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. We have reason to believe that the engine breakdown was due to chronically low fuel levels in the tanks, which can easily damage diesel engines. Apparently some fuel gets siphoned off and sold at a premium on street markets. The cost of repairing the broken engine is estimated at less than USD 20,000. We were unable to establish what happens with Office des Routes’ profits from the ferry operation.

4.3 Upriver Transport: Natural and Man-Made Hazards

Improved conditions for river-based trade in Kinshasa and Brazzaville could also revive upriver trade, thereby promoting the economic development of the capitals' vast hinterlands. Of Kinshasa's 50-odd ports, most are primarily used for upriver transport. Total traffic on the river seems to have decreased in recent years and shifted from ONATRA's vessels and ports to private operators (Peters, 2010). Vessels are usually heavily overloaded, and severe accidents are common. The length of upriver rotations has increased substantially as maintenance of the river systems has deteriorated. For example, while historically it took ONATRA about 15 days to travel to Kisangani from Kinshasa (with an approximate return journey downriver taking 5-7 days), it now takes a month or more for such a trip.

River-based transport could be cheap and efficient but requires some investment. The DRC river system is estimated to comprise 25,000 km of navigable waterways, of which 15,000 are classified as "known". These 15,000 km of river system are used in their natural state with the exception of 2,668 km that are in principle maintained by RVF. However, the condition of the principal river connections (Kinshasa to Kisangani, on the Kasai to Ilebo, and to Kikwit) has deteriorated sharply over the last 20 years. Rivers are not sufficiently dredged, channels and sand banks are not clearly marked, and signs are not illuminated, indicating that RVF is not fulfilling its mandate. As a result, ships often can only circulate during the day and in the rainy season. RVF currently have an annual budget of between 5 and 8 USD million but claim that they would need a budget of 15-20 USD million to maintain the river network. Their equipment consists of one very small ship with a dredge, as well as seven ships - of which two are operational - that can be used to mark the river with buoys and signs that are often fixed to trees. RVF seem to face similar problems as other public agencies with regard to high personnel costs and pension liabilities.

Administrative hassle and insecurity are major obstacles to upriver traffic. In addition to insufficient dredging and marking, boats sailing upriver seem to have to stop frequently and have to pay bribes to continue their journeys. Officially, there is no regulation that would demand boats to stop along their journey unless they wanted to stop or needed to charge fuel. However, in reality there seem to be at least five agencies that cooperate in extortion, approaching traveling ships on small speedboats that belong to the Force Navale: the Commissariat fluvial, the DGM, Services spéciaux (effectively some kind of police inspecting cargos for arms), Force navale, and the secret service (DEMIAP). While no payment is required for the control of documents, delays due to these "controls" seems to depend on the amount of informal payments made, and can range from five minutes to two hours and possibly more. The Commissariat fluvial is mandated to check for the captain's certificate as well as the accuracy of the "carnet de bord" regarding tonnage and passengers. It is less clear whether they also have the mandate (or are allowed) to stop and control boats during their journey. Due to the politically sensitive situation in the Equateur province, there currently seems to be a more or less official requirement to stop at Maluku port, at the far end of the Malebo Pool.

5. POLICY RECOMMENDATIONS

In line with recent World Bank recommendations, we advocate a policy focus on small but concrete measures within a "natural neighborhood". The 2009 *World Development Report* (World Bank, 2008) stresses regional integration in Africa as a key component of strategies aiming to foster export capacity and development. Regional integration is defined in a sense that goes well

beyond trade policy measures, as “cooperation between countries in trade, domestic regulations and policies, regional infrastructure, and other cross-border initiatives, including public goods [...] within a neighborhood of countries” (p. 260). It goes on to point out that “[t]here is no shortage of international agreements. But these agreements are often poorly implemented, [and] their effectiveness tends to be low” (p. 278). As an alternative to grand multilateral treaties, the report advocates small but concrete integration measures within “natural neighborhoods” (p. 279). The experience of the European Union, which started with co-operation agreements on specific economic activities among a small group of neighboring countries, is taken as a motivating example: “[i]nteractions between neighboring areas or cities across countries can [...] provide the base for broader integration – a form of transfrontier regionalism that could follow European models. Sub-Saharan Africa has many pairs of large cities that are near each other but separated by national borders. This carries hidden economic costs that can be overcome through cross-border agreements.” (p. 279). It is in this spirit that we seek to identify concrete interventions to facilitate economic exchanges across and along the river Congo. We focus mainly on DRC decision makers.

It is generally recognized that considerable scope remains for trade facilitation in the Lower Congo region. For the DRC, the World Bank (2010c) has identified a range of actions concerning statutory trade impediments as well as the implementation of trade policy that could serve to reduce trade barriers significantly.²⁸ New export opportunities for manufacturing enterprises in Kinshasa or the planned export processing zone in the vicinity of Kinshasa will critically depend on less costly linkages with regional markets and secure access to deep water ports, of which Pointe Noire is currently the closest.

5.1 General Cross-Border Transport and Trade

We first formulate some policy recommendations that concern DRC policy in general, and are thus applicable in the Western region just as they are elsewhere in the country.

Regulatory and Administrative Measures

First and foremost, our analysis points to the importance of customs reform. This has been spelt out very clearly in the recent DTIS (World Bank, 2010c). A central element of such a reform are 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. The Presidential decree of 28 March, 2002, stating that only four agencies are allowed to operate at border posts, should be enforced.

An area for reform of particular interest to the Western region 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) turnover tax (ICA), or the new value added tax that will replace the ICA, should be improved.²⁹

²⁸ Somewhat soberingly, the problems identified and policy recommendations made in World Bank (2010) are very similar to those of a comparable analysis carried out two decades earlier, in the final period of the Mobutu régime (World Bank, 1991).

²⁹ A law for creating a value added tax system has been passed in 2010.

Improving law and order along the river Congo could go a long way towards unlocking the potential of that natural economic artery. This formerly lively trade route is now beset by all sorts of “services” and agencies claiming authority over the river and extracting taxes from passing traders and passengers. This not only has a financial cost for shipowners, it can also imply significant delays and add to the general sense of insecurity that still prevails.

Infrastructure

Infrastructure improvements are needed throughout the DRC, but the payoff to such investments could be particularly high in the Lower Congo region, where population density is high and distances are comparatively short (see World Bank, 2010a). We have identified the Matadi-Kinshasa and Pointe Noire-Brazzaville corridors not only as the gateways to the world for the two capital cities but also as corridors that could be in competition and thereby reduce costs and barriers along those corridors. In addition, they 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. Work on the Pointe Noire-Brazzaville road is already underway, and upgrades to the rail link are in the pipeline. The Matadi-Kinshasa road is in passable condition, but does not seem to offer the capacity for significant increases in trade volumes. An upgrade of the Matadi-Kinshasa rail link could therefore pay rich economic dividends. Such an investment should be coupled with organizational reform of ONATRA, either in the form of privatization or by issuing concessions for other operators to use the railway tracks.

Dredging and signposting along the river and in the Pool area are badly needed. In conjunction with the security and administrative improvements needed for a facilitation of upriver trade, such physical improvements could be a relatively low-cost means of opening up the vast interior hinterland to international trade. The current situation is so severe that economic operators in Kisangani have turned to supply routes through the port of Mombasa.

Infrastructure investments will have to be complemented by sustainable mechanisms for maintenance. Currently, physical capital is largely left to depreciate without any local investment in maintenance or replacement. While it is understandable that much of the region’s initial infrastructure investments are foreign funded, the maintenance of new and existing physical capital will have to be locally funded to be sustainable in the long term. We have experienced several instances of foreign-donated capital goods (especially ferries) that undoubtedly generate significant economic rents but are nonetheless allowed to depreciate while the use of the profits generated cannot be verified.

It is 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. As a general rule, this aim is probably better served with regulatory and administrative interventions aimed at freeing local initiative and competitive forces rather than with large foreign-financed and foreign-planned capital projects.

5.2 Kinshasa-Brazzaville: Unblocking the Bottleneck

The proposed construction of a road-and-rail bridge between Brazzaville and Kinshasa is fraught with political difficulties. A bridge, combined with an upgrade of the Pointe Noire-Brazzaville corridor and, possibly, of the road and/or rail link between Kinshasa and Ilebo, has an estimated internal rate of return of 16 percent for the DRC and of 3 percent for the RC (World Bank, 2010a). It would offer the lowest-cost transport between the two capitals in a physical sense, granting Kinshasa and its hinterland improved access to the existing and expandable deep-water port of Pointe Noire, potentially obviating a large share of the current transshipments from Pointe Noire to Matadi. However, even though the economic gains would seem to be larger for the DRC, the intra-national distribution of gainers and losers is such that enthusiasm for the bridge is in fact strong in the RC but limited in the DRC. The main appeal from the vantage point of RC authorities is increased utilization of their transport infrastructure (port, rail, road) and the attendant scope for revenue collection. Conversely, the main source of hesitation on the DRC side is strong opposition from the political elite in the Bas-Congo region, which fears the loss of its current status as the nation's main access point for merchandise trade and the loss of revenues and jobs related to port handling, transit fees on road infrastructure, and substantial losses in terms of unofficial payments.

Given the large cost and uncertain prospects associated with the bridge project, less costly and more rapidly implementable solutions to unblocking the Kinshasa-Brazzaville bottleneck need to be identified.³⁰ The World Bank (2010a) has identified the Kinshasa-Brazzaville bridge as the potentially most beneficial infrastructure investment in terms of its impact on local production. However, as other studies have shown (Teravaninthorn and Raballand, 2009), dilapidated infrastructure may be the visible face of high trade costs in Africa, but uncompetitive transport markets often pose even more severe obstacles to the free movement of goods and people and high administrative costs would have to be reduced to allow the full benefits of improved infrastructure to materialize.³¹ While some forms of transport infrastructure (roads, dredged waterways, navigation marks, ports) have public good character and therefore justify some degree of public investment and monitoring, there is no reason why shipping services cannot be left to private providers. In principle, the state would need to play only a minimal role, by regulating traffic, monitoring safety and protecting property rights.

Travel and transport across Malebo Pool could be facilitated through a range of mainly regulatory measures. If implemented effectively, such measures could generate similar benefits to those of a bridge, at a fraction of the cost. To the extent that such measures reduce administrative barriers to cross-border trade, they would of course also have to accompany any investment in a bridge across the river. 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.

Unblocking the Malebo bottleneck with a combination of regulatory changes and some capital investment could yield significant economic gains for both countries, have symbolic value as a gesture of political good will, and represent a test case for trade reform. Since many regional

³⁰ According to Keefer (2010), the fragmentation of DRC elites makes it very difficult to undertake and maintain large infrastructure projects: "The failure to construct the Kinshasa Brazzaville bridge is only one example of a critical infrastructure project that has large benefits for citizens generally, but is opposed by a few for either nationalistic or commercial reasons."

³¹ Of the estimated total freight cost of USD 40 per ton to cross Malebo Pool, USD 26 relate to border delay costs, which a bridge would not necessarily reduce. Addressing these costs alone (even without building a bridge), could bring down transport costs between the two cities by 63%.

integration treaties have remained 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 applied elsewhere.

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. Such a reform would include allowing free entry for “canotiers” to transport passengers across the Pool. 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. Investments to allow modern, integrated, customs management ought to be at least co-financed by government (agencies) involved in these operations. Such a second river crossing could be restricted either to passenger traffic, with strict limitations on luggage; or it could be designed especially for the needs of small-scale traders.

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 (implementation of the 2002 Presidential decree, allowing only four public agencies to intervene at border posts)
- **extension of port opening hours and hours for river crossings**

These reforms would best be undertaken and led by a committee under the leadership of the provincial government. Likewise, the provincial government would have to be empowered to enforce relevant legislations such as the Presidential decree.

Administrative measures could be coupled with auditing and reforming ONATRA and CNTF. The river-crossing transport operations should be spun off as separate entities, either as a private or as semi-private firms. If ONATRA and CNTF, or their spin-offs, were expected to continue to perform certain public services (to be rigorously defined and monitored), it could be envisaged that other operators pay some (modest) fees to compensate them for these mandated

duties. If serious reforms of these public enterprises were undertaken, a case could also be made for external support, for example to settle pension claims and pay off redundant staff.

Capacity restrictions on “canotiers” should be abolished or relaxed. This, in combination with setting up and monitoring of safety guidelines for the liberalized transport market, possibly under the auspices of CICOS, would constitute a quickly implementable first step toward improving passenger transport across Malebo pool.

There is evident scope for simplifying travel for passengers and to facilitate formal trade of non-bulk products (i.e. those transported by individual traders). Much petty cross-border trade currently occurs informally by dugout canoe. If such traders were persuaded via trade facilitation measures to switch to formal trade channels, the public coffers would benefit, and trade could be more effectively monitored. Such trade facilitation measures should aim at:

- the assignment of **separate terminals for simple travelers and for traders**, possibly by opening a second “beach” in each of the two capitals, managed by private operators, as outlined above
- issuing of **concessions to private operators for transport of small-scale traders**
- **upgrading of ferries** to allow goods transport in better conditions

An additional, more ambitious, and probably even more efficient approach, would be to limit border controls to the point of embarkation, by allowing the destination country’s agents to operate at the point of departure (similar to US controls at Canadian airports). If seriously supported by the two governments, external technical support could help in undertaking such steps. By demonstrating willingness to act on facilitating economic reform across Malebo Pool, the two governments might also be able to signal their good intentions to international donors and thereby generate further external support.

6. CONCLUSIONS

Our report highlights the strategic economic importance of the Kinshasa-Brazzaville conurbation, both through its sheer population size and through its position as the regional transport hub. We have provided evidence to support the view of the river crossing between the two capitals as a major bottleneck: traffic volumes are small, transport costs are high, administrative obstacles abound, and cross-border differentials in retail prices are significant.

We find bilateral official trade volumes between DRC and RC to be derisorily small. Formal trade between DRC and RC is lower now than in the 1980s. Recorded transit trade volumes are small too, mainly from Matadi to Brazzaville. However, we have also found evidence of significant informal trading activity. It is impossible to accurately quantify the volume such trade.

We observe statistically significant price differences between markets in Kinshasa and Brazzaville. While we observe no significant price differentials within cities, shipping goods across the river appears to systematically increase retail prices in both cities. This points toward unexploited arbitrage opportunities.

We also find substantial potential for cross-border trade in locally produced goods, based on our company survey. We estimate that a general reduction in general trade costs would stimulate exports even more than imports, and thus improve the trade balances of DRC and RC. Trade

facilitation across Malebo Pool, through facilitating mainly trade in locally produced goods, holds particular promise for unlocking local productive potential.

The costs of formal trade across Malebo Pool are very high, explaining low overall trade volumes and a lively informal trade. A return trip across Malebo Pool on a licensed vessel costs between 20 and 40 US dollars, i.e. 40 to 80 percent of the average monthly income earned by Kinshasa residents. The price of crossing the river at Kisangani is about 300 times lower than that of crossing at Malebo Pool. Costs of goods trade across Malebo Pool are estimated between 3 and 30 percent of FOB values. Border delays and administrative costs account for around two thirds of those costs. Transport capacity for passengers and small-scale shipments of goods is severely limited and in poor state of repair. Border formalities are slow, complex and poorly administered. A multitude of agencies are present at border crossings in direct violation of presidential orders, which would restrict their number to four. Bribery, incivility and violence are rife.

Passenger transport across Malebo Pool is controlled by a duopoly consisting of the two state-owned transport operators ONATRA and CNTF. This duopoly is protected by a convention signed by the governments of DRC and RC under the auspices of CICOS. Private operators are allowed to offer their services only under a tight quota regime and subject to steep fees due to the duopolists.

We present a set of policy recommendations that can be taken as complements to more general trade-facilitating reforms and as substitutes for the project of building a bridge to link Kinshasa and Brazzaville. In addition to simplifying customs procedures and making fare structures more transparent, we propose a liberalization of the transport market across Malebo Pool. Such measures would be comparatively cheap, they ought to be relatively easy to enforce given the proximity to the seats of government, they would yield large gains to the general population, and they could have high symbolic value as evidence of political goodwill between the two nations. Technical support and adjustment financing from external donors could well be envisaged.

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APPENDIX 1: LIST OF LOCAL INTERVIEW PARTNERS

February 8-13, 2010:

- Daniel Mukoko (Directeur Adjoint du Cabinet du Premier Ministre, Kinshasa)
- Albert Kwete Minga Bope (Secrétaire Général au Commerce, Ministère de l'Economie et Commerce, Kinshasa)
- Jean Kalala Mukongo (Administrateur Délégué, Fédération des Entreprises du Congo, Kinshasa)
- Joseph Tshimanga (Conseiller du Ministre, Ministère de l'Economie Nationale et Commerce, Kinshasa)
- Charles Lusanda Matomina (Coordonnateur National, Ministère de l'Economie Nationale et Commerce, Kinshasa)
- Georges Raymond (Administrateur Directeur Général, ONATRA, Kinshasa)
- Léonard Rizza (Administrateur Directeur Technique, ONATRA, Kinshasa)
- J.P. Kalenga Katamba (Directeur de Département, Département des Ports et Transports Fluviaux, ONATRA, Kinshasa)
- Mike Mbongo Boketshu (Administrateur, Direction Générale de Migration, Kinshasa)
- Carol Lutaladio Mbuta (Directeur des Douanes, OFIDA, Kinshasa)
- André Kamba (Directeur de Cabinet; Ministère du Commerce, de la Consommation et des Approvisionnements; Brazzaville)
- Alphonse Okoye (Directeur Général du Commerce et des Approvisionnements; Ministère du Commerce, de la Consommation et des Approvisionnements; Brazzaville)
- André Okemba (Directeur Général, Port Autonome de Brazzaville)
- Grégoire Louembet (Directeur des Exploitations, Port Autonome de Brazzaville)
- Julien Abou (Directeur Financier, Port Autonome de Brazzaville)
- Jean-Christophe Okanza (Directeur de Cabinet du Ministre d'Etat; Ministère de l'Economie, du Plan, de l'Aménagement du Territoire et de l'Intégration; Brazzaville)
- Robert J.-R. Massamba-Debat (Directeur Général; Direction Générale de l'Economie; Brazzaville)

April 5-10, 2010:

- Albert Kwete Minga Bope (Secrétaire Général au Commerce, Ministère de l'Economie et Commerce, Kinshasa)
- Véronique Tshiala Bebel (Experte et Négociatrice Multilatérale, Ministère de l'Economie et Commerce, Kinshasa)
- Georges Raymond (Administrateur Directeur Général, ONATRA, Kinshasa)
- J.P. Kalenga Katamba (Directeur de Département, Département des Ports et Transports Fluviaux, ONATRA, Kinshasa)
- Edouard Marc Mogugo-Mobingibingi (Sous-Directeur, OFIDA)
- Benjamin Ndala (Secrétaire Général, CICOS)
- Théophile Edgar Lavodrama (Directeur de l'Exploitation, des Infrastructures et des Voies Navigables, CICOS)
- Bob Tumba (Président, tigo)
- Yves Debiesme (Administrateur Délégué, SDV-AGETRAF)
- Régis de Oliveira (Directeur d'Exploitation, SDV-AGETRAF)
- Albert Ngayouli (Directeur Par Intérim, CNTF, Brazzaville)
- Alain Robert (Directeur Général des voies Navigables, GIE-SCEVN, Brazzaville)
- Dieudonné Ilou (Président des canotiers privés, Brazzaville)

August 23-27, 2010 :

- Simon Sakibédé (Secrétaire Général, CICOS)
- Laura Sustersic (Conseiller Technique Principale (GTZ) at CICOS)
- Partice Kironiny (Expert Principal, CICOS)
- Mme Cyrille Tagny (CICOS)
- J.P. Kalenga Katamba (Directeur de Département, Département des Ports et Transports Fluviaux, ONATRA, Kinshasa)
- Adolphe Mukengeshat (Commissariat fleuviale)
- Carol Lutaladio Mbuta (Directeur Général Adjoint, DGDA (former OFIDA)
- Voltaire Mampinda (Directeur, Division des Douanes, DGDA)
- Mikael Hoolans (Directeur d'Exploitation, Nocafex s.p.r.l.)
- Veronique Tshiala Bebel (Coordinatrice Adjointe du Cadre Intégré, Ministère de l'Economie Nationale et Commerce)
- Alain Ilunga Kabey (Sous-Directeur, Direction Provinciale Kin-Est, DGDA)
- Benôit Diakunjenga Mudinyiku (Direction Provinciale Kin-Est, DGDA)
- Jaques Diatulu Nsunda (Chef de Division, Dir. Adjoint, Direction de la Marine et voies Navigables)
- Sylvestre Pakabomba B. Koni (Directeur du Cabinet Adjoint, Ministère de la Cooperation Internationale et Regionale)
- Mazhar Rawji (Président du Conseil d'Administration, Rawbank; Chairman, Marsavco)
- Gabriel Mokango Mamy-Kobo (Directeur Technique, Regie des Voies Fluviales (R.V.F.))
- Honoré Njibikila Nkonka Kenabantu (Directeur du Département Etudes, Formation et Documentation, Federation des Entreprises du Congo (FEC))
- Marcel van der Lee (Logistic Manager, Bralima)
- T.R. Gautier N'Sambayi (Responsable des Achats, Bralima)
- Emile Kakesse T.M. (Directeur R.H. & Logistique, Minoterie de Matadi (Midema))
- Richard Mukundji (Chef de Mission, Project Centre de Recherche de d'Analyse des Statistiques Commerciales en RDC, CRASCOM)

APPENDIX 2: GOODS INCLUDED IN PRICE STUDY

Good	Precise description (French)	Units	Mean price		No. obs.		% difference		
			Kinshasa	Kinshasa	Brazzaville	Brazzaville			
African shirt	Chemise / Robe Bazin	1 unit	15.18		5		0	na	
air conditioner	Climatiseur, LG	1 unit	469.25		5	399.78	7	-14.8	
artificial hair (Miss Rola)	Mèches Miss Rola	1 packet	4.93		8		0	na	
artificial hair (Noble)	Mèches NOBLE	1 packet	13.03		5		0	na	
baby powder	Poudre Bébé, Jonson	250 g	2.06		11	1.57	7	-24.2	
beer	N'gok, Primus, Turbo King (boisson)	65 cl			0	1.04	9	na	
biscuits	Biscuit Kwick	1 packet			0	0.20	9	na	
body lotion	Lotion Extra Clair	500 ml	1.46		10	2.18	7	49.3	
butter (imported / local)	Beurre Kerrygold / Marsavco	500 g	2.02		18	2.08	11	3.0	
cabbage	Choux (1 grosse boule)	1 kg			0	0.75	8	na	
cassava flour	Farine de Manioc	1 kg	0.56		7	0.61	10	8.7	
cement	Ciment / Cinat	50 kg	15.95		8	16.90	19	6.0	
chicken	Poulet (Wilki, local)	1 kg	4.65		12	3.56	22	-23.5	
cooking oil	Huile végétale, Simba / Marsavco	5 litre	9.15		11	10.60	6	15.9	
corned beef	Corned beef, Exeter	340 g	2.28		12	2.54	9	11.5	
detergent	Detergent Klin, Yambo, Saba, Le coq	1 litre			0	1.70	5	na	
egg	Œufs	1 plate	5.37		9	7.19	6	34.0	
fabrics English Wax	Wax Anglais	6 yards	11.26		10		0	na	
fabrics Soso	Wax Soso	6 yards	10.11		10		0	na	
green beans	Haricot, vert	1 kg	3.17		8	3.01	4	-5.0	
jeans	Pantalon Jeans	1 unit	13.85		10		0	na	
ladies' handbag	Sac à mains	1 sac	6.70		2		0	na	
liquid detergent	Sumamous (Detergent liquide)	2.5 litre			0	4.56	5	na	
maize flour	Farine de Maïs	1 kg	0.54		8		0	na	
milk powder	Lait en poudre, Nido	400 g	4.44		12	4.50	11	1.4	
mineral water	Canadian Pure (Eau minerale)	1.5 litre	0.67		11	0.90	10	35.3	
mobile phone	Téléphone Portable, Nokia le petit	1 unit	28.74		12	47.81	7	66.3	
notepad	Cahier (Ragec et Bayo)	200 pages			0	0.68	11	na	
palm oil	Huile de Palme	5 litre	5.31		9	5.93	14	11.6	
pilchards	Pilchard GF, Apollo	425 g	1.60		12	0.73	7	-54.6	
pineapple	Ananas	1 kg			0	1.72	9	na	
plantain	Banane Plantin	1 kg	2.09		8	1.36	7	-35.1	
plastic chair	Chaise en plastic / Plastica	1 unité	7.46		9	9.74	8	30.5	
potato	Pomme de terre	1kg	2.69		8	2.43	7	-9.9	
razor blades	Rasoir Gillette, Nelson	packet of 10	0.44		12	0.97	6	121.7	
rice (imported / local)	Riz Lion / local	25 kg	16.84		19	26.24	9	55.8	
sandals	Sandales / Babouches / Creppes	1 paire	8.01		8		0	na	
sardines	Sardine à huile, Anny	125 g	0.71		12	0.69	11	-3.3	
sea fish	Poisson de mer	1 kg			0	3.12	9	na	
shoe polish	Cirage, Kiwi / Bee & Flowour	40 ml	0.47		12	0.49	8	3.5	
soap	Savcongo	1 unit			0	0.48	5	na	
spaghetti	Spaghetti VEGA	500 g	0.82		12	0.52	11	-36.8	
sugar cane	Sucre, Kwilungongo	5 kg	5.78		12	6.20	17	7.2	
sweet potato	Patate douce	1 kg	1.39		8	0.88	5	-36.8	
tinned tomato	Tomate pelée	400 g	1.06		6	1.14	8	7.6	
tomato	Tomate fruit	1 kg	0.70		8	2.21	10	215.4	
tomato puree	Tomate concentrée, Salsa	70 g	0.18		12	0.24	11	33.0	
toothpaste	Dentifrice, Colgate	125 ml	1.18		12	1.37	8	16.2	
TV set	TV Couleur "21 pouces", Samsung / LG	1 unit	203.37		12	208.66	8	2.6	
vegetable cooking oil	Huile Rafinée, Avena	5 litre	7.46		12	11.08	8	48.4	
ventilator	Ventilateur Gd format, Crown	1 unit	29.14		12	30.51	11	4.7	
washing powder	Omo Bleu / Marsavco	500 g	1.48		18	2.37	11	59.8	
wheat flour	Farine de Froment / Midema	50 kg	44.93		9	44.14	13	-1.8	
wine	Baron Simon (vin)	1 litre	3.38		7		0	na	
yoghurt	Yaourt Bayo	12,5 cl			0	0.46	10	na	
Average									17.3