West and Central Africa Trucking Competitiveness

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Policy Program

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Sound policies lead to safe, reliable, and cost-effective transport, freeing people to lift themselves out of poverty and helping countries to compete internationally.

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Foreword

Togo is a relatively small country in West Africa, member of the two regional economic communities, West Africa Economic and Monetary Union (WAEMU) and the Economic Community of West Africa States (ECOWAS): it represents only 1 percent of the area of ECOWAS and 2 percent of its population. Due to its geography and the nature of its economy, Togo has a limited domestic market for trucking services, while large industries and traders rely for their transport needs on their own truck fleet or use dedicated rail links.

However, Togo plays an important regional role for its neighbors as a maritime gateway, in the landlocked hinterland for Burkina Faso, Niger and even Mali, and its coastal neighbors, mostly Ghana. Togo plays also an even greater role as a regional transshipment hub for the West and Central Africa coast, and this since the opening of a dedicated transshipment container terminal at the end of 2014, which enabled the volume of its container traffic to triple.

The Government of Togo considers this regional role as a critical asset for the economic development of the country and for that reason, the transformation of its transport and logistics sector into a modern industry has become a first strategic priority in its National Development Plan 2018-2022.

The Government is very much aware of the difficulty that such a transformation entails. The Togo transport and logistics industry shares many of features and challenges described here: a narrow market, as many traders and industries cannot rely on third party logistics and transport providers to run their businesses and decided to invest in their own truck fleet to serve their transport needs, an aging truck fleet, a predominance of informal operators, numerous layers of intermediaries extracting rents, few and far loads for trucks with long immobilization times in between, short-term survival reflex leading notably to overloading…

To face that challenge, the Government requested the assistance of the World Bank Group for an ambitious program aligned with the National Development Plan and aiming at professionalizing the trucking and logistics industry. This program draws from the reform agenda described in the present SSATP paper, with

the professionalization as well as liberalization of the trucking & logistics services, and trade facilitation. The transformation of the port industry started almost a decade ago, benefiting from the support of development partners and the private sector, with the creation of two modern container terminals in the port.

Under the World Bank assistance, Togo will adopt a legal and regulatory framework conducive to the professionalization of the transport and logistics services, and provide direct assistance to the operators to adapt to the new environment. That notably includes the establishment of a training center for truck drivers and transport managers, capacity building for small-scale truckers and their representative institutions, review of the vehicle inspection system, and support to the acquisition of recent vehicles through leasing. The program also comprises a series of trade facilitation activities that will improve Customs clearance and transit.

However, the situation of Togo is particular compared to other transit countries, as in the absence of a large domestic market, its transport and logistics industry relies mostly on trade originating or destined to its neighbors, and therefore it has to compete with operators from these neighboring countries. It is important to push for a level playing field on a regional level, with an alignment on higher professional standards rather than a race to the bottom which has been prevailing in West Africa for years, leading to the poor state of the industry as we see it.

Addressing the transformation of the logistics and transport industries at a regional level is therefore critical, not only for Togo, but for all countries, if they want to see their economic operators thrive and develop on the global scene, and Togo is welcoming the initiatives of the SSATP in organizing the regional dialogue for harmonized standards for the industry, and trade facilitation along the corridors.

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Acronyms and Abbreviations

AEO	Authorized Economic Operator
AfDB	African Development Bank
ALCO	Abidjan Lagos Corridor Organization
ALTTFP	Abidjan-Lagos Trade and Transport Facilitation Program
APIX	Agency for the promotion of investment and major works in Senegal
BNDE	Senegal's National Bank for Economic Development
CAFER	Road Maintenance Fund of Niger
CBC	Burkinabe Shippers Council
CCI-BF	Chamber of Commerce and Industry – Burkina Faso
CEMAC	Central African Economic and Monetary Community
C&F	Clearing & forwarding
CMC	Mali Shippers' Council
CMTR	Malian Council of Road Transporters
CNNCI	National Committee of International Commercial Negotiations
CNUT	Nigerien Council of Public Transport Users
COSEC	Senegalese Shippers' Council
CRIPA	International Road Union's Regional Committee for Africa
CSCRP	Strategic Framework for Growth and Poverty Reduction
CTN	Cargo Tracking Note
DGTTC	Côte d'Ivoire Directorate General for Land Transport and Traffic
DGTTM	Burkina Faso Directorate of Land and Maritime Transport
DLI	Disbursement-Linked Indicators
DNTTMF	National Directorate for Land, Maritime and River Transport of Mali
DPO	Development Policy Operation
EAC	East African Community
ECMT	European Conference of Ministers of Transport

ECOWAS	Economic Community of West African States
EMA	*Entrepôts Maliens*
EU	European Union
FCFA	West African Franc
FDTR	Côte d'Ivoire Fund for the Development of Road Transport
FSTN	Federation of Niger Transport Companies
GACCI-GIE	Group of Shippers and Chargers of Côte d'Ivoire
GDP	Gross Domestic Product
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit*
ICD	Inland Container Depot
ICPD	Dakar Port Information Center
ICT	Information and Communications Technology
IDA	International Development Association
IPF	Investment Project Financing
IRTG	Improved Road Transport Governance Initiative
IRU	International Road Union
JICA	Japan International Cooperation Agency
LPI	Logistics Performance Index
NEPAD	New Partnership for Africa's Development
OIC	Ivorian Shippers Office
ONTTB	Burkina Faso Organization of Road Transporters
OSBP	One-stop border post
OTRAF	Burkinabe Truckers' Association
PACIR	*Programme d'Appui au Commerce et à l'Intégration Régionale*
PSE	Emerging Senegal Plan
PSIA	Poverty and Social Impact Assessment
REC	Regional Economic Community
RTFCC	Regional Trade Facilitation & Competitiveness Development Policy Credit
SNCFE	Senegal's National Sub-Committee for Trade Facilitation
SNDES	Senegalese National Strategy for Economic and Social Development
SNTRC	Union of Cameroon's Road Transporters

SNTRMVB	National Union of Road Carriers of Goods and Passengers of Burkina
SNTMVCI	National Union of Carriers of Goods and Passengers of Côte d'Ivoire
SNTTRS	National Union of Road Transport Workers of Senegal
SSA	Sub-Saharan Africa
SSATP	Africa Transport Policy Program
STH	Hydrocarbons Transport Union of Senegal
STMN	Union of Niger Goods Transporters (STMN)
SYNATAC	National Autonomous Union of Carriers of Côte d'Ivoire
TEA	Transport Entrepreneurs Association
TEU	Twenty-foot Equivalent Unit
TIE	Inter-State Road Transport Convention
TIP	Trade Information Portal
TLC	Total Logistics Costs
Ton-km	Ton-kilometer
TTL	Task Team Leader
TRIE	Inter-State Road Freight Convention
UCRB	Drivers' Union of Burkina Faso
UNCTAD	United Nations Conference on Trade and Development
URS	Senegalese Union of Road Transporters
US$	United States Dollar
USAID	United Stated Agency for International Development
USETTA	Senegalese Union of Transit and Approved Transport Companies
VOC	Vehicle Operating Cost
WAEMU	West African Economic and Monetary Union
WCO	World Customs Organization

Overview

In West & Central Africa, economic growth and employment still largely depend on unprocessed agriculture and extractive industries, and reliance on imports from overseas is high.

The landlocked countries of the region are characterized by large trade imbalances, with export-import ratios below 30 percent, and an overwhelming reliance on road transport. While further improvements in infrastructure are still much needed, policy reforms that reduce costs and increase competition in transport and logistics services are now critical. However, the political economy of the necessary reforms is complex and not well understood.

Analyzing the political economy is important where and when governance and political economy factors appear to prevent progress that is otherwise considered possible from a technical perspective.

The trucking sector tends to be politicized, especially in countries that heavily rely on it for their food security and trade. In West & Central Africa, fragility, political instability, and structural economic and trade imbalances affect the reform dynamics of the sector. Although notable gains have been made in improving the region's road infrastructure, key policy reforms that would correct the market distortions and increase the value of infrastructure investments have yet to follow. This SSATP working paper overviews the trucking sector inefficiencies in the region and identifies key political economy challenges that have thus far prevented meaningful reform. It surveys past analytical work on trucking sector reforms in the region, describes the current challenges and the opportunities going forward, presents an analytical framework to assess trucking sector reforms, with an emphasis on the political economy and feasibility of implementation, and offers practical recommendations for policy makers. In doing so, the paper aims to provide guidance for future World Bank engagement in the sector. Its geographic coverage is limited to the major transport corridors in the region, selected based on their role in the region's trade, availability of recent trucking sector data, and the past and current engagements of the World Bank.

This paper is deeply rooted into analytical work conducted by the SSATP on the legal and regulatory framework for transport.

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West & Central Africa, mostly the total logistics costs study in West & Central Africa, the trucking surveys in Benin and Niger; outside of the region, with trucking surveys in East Africa; and continent-wide, with the Review of International Legal Instruments for the Facilitation of Transport and Trade in Africa. Its publication by the SSATP marks the launch of a regional effort in West Africa to build a template legal and regulatory framework for transport at national, bilateral and regional levels.

KEY FINDINGS

Some of the major inefficiencies increasing logistics costs relate to the organization of the road transport sector and the determination of transit transport prices without effective competition.

The trucking sector is dominated by small and informal[1] operators that are not professionally trained and lack business acumen. These truckers opportunistically move in and out of domestic and international activities, with few formal entry barriers. A web of formal and informal institutions shape access to the profession and to the freight market within and between countries, in a context where security concerns further influence the political incentives of key private and public actors. The sector is excessively unionized and characterized by a strong influence of informal intermediaries and trade unions as well as a myriad of formal and informal rules, such as non-competitive allocation of freight, that increase transport costs and reduce incentives to modernize fleets. Moreover, the incentives and intentions of individuals operating inside formal state institutions do not always align with those of the institutions themselves, making the chances of any reform to succeed yet slimmer. Indeed, in the past, some stakeholders have proved to be powerful enough to block reform (openly or secretly) or have only promoted a very limited set of reforms that do not jeopardize their rent-seeking position or expose their corruption.

The difficulty of implementing meaningful reform in the region is compounded by many interrelated factors.

The lack of enforcement of axle load regulations means that containerized road or rail transport services remain more expensive than overloaded bulk road transport. Policy factors distort decisions relating to fleet investment and use and many other trucking sector behaviors. For instance, in many of the countries, trucks cannot be used as collateral, limiting access to credit for new assets. Similar-

[1] Here and hereafter, "informal" operators refer not only to the operators who lack an authorization to operate, but – mostly – to those who do not comply with national or international operating standards.

ly, shippers often choose carriers based on 'trust' rather than on value, reducing incentives and possibilities for filling backhauls or investing in improved efficiency. Cabotage restrictions contribute to lower asset productivity and empty backhauls in transnational freight transport. Overall, the factors causing inefficiencies and higher costs in the logistics systems are similar across the corridors.

A key observation from examining the trucking industry across selected corridors is that the level of exposure to business & financial risks is uneven and depends on the firm's operating model.

Firms performing trucking activities for their own account and those offering these services for commercial purposes make profit on different bases. While commercial transport is profit-driven, own-account transport is just one expense item, not an independent profit center. The operating profits within the commercial trucking sector are highly variable as well, with a few large operators – often daughter companies of multinational logistics conglomerates – making some profit, whereas the numerous small owner-operators barely break even, partly because of their inability to properly account for their full operating costs and partly because of the share of any profits absorbed by the various intermediaries. Thus, the current dominant model of small owner-operators is inefficient due to their lower level of professionalism, their inability to sustainably secure freight, and their lower ability to renew fleets.

The inefficiency of the trucking business is related to the lack of professional standards for entering the sector at the national and regional levels. There are currently almost no formalities of becoming a trucker, and the cost of entry is limited to the cost of a second-hand old truck. In addition to the permissive lack of a legal and regulatory framework, the institutional arrangements for building capacity for the operators in the sector are inadequate. This lack of capacity has several implications, including for road safety and the environment, as under-trained truckers tend to drive less safely and less fuel-efficiently.

The many intermediaries operating in the region's trucking sector contribute to the divergence between the trucking costs and prices, or between the prices paid by the shippers and the payments received by the truckers.

Even though the many informal intermediaries provide value to the logistics chain by helping match trucking demand with supply, they are not bound by a contract and therefore do not bear any formal responsibility. *Coxeurs* – informal intermediaries – not bound by contractual terms, are symptomatic of the dysfunction of the trucking industry in the region or of the lack of formal freight allocation exchanges, their activities adding to the operating expenses of small and informal (non-compliant) trucking operators who are otherwise unable to find freight.

On most of the analyzed corridors, distorted market access rules and politically motivated freight allocation mechanisms drive at least part of the transit transport market, inevitably increasing the price of transport services.

In principle, the 1982 Inter-State Road Transport Convention[2] of the Economic Community of West African States (ECOWAS) seeks to create equitable rights and opportunities amongst the trucking communities of the member States; however, its implementation within the context prevailing in the 1980s paved the way for a lack of competition in the sector to the point of creating a quasi-monopoly. The prominent role played by the trucker unions in administering some of the freight allocation schemes (*tour de rôle*) is based on an outmoded business model that will gradually fade away with the professionalization of the industry. It is likely that an outright call for dismantling the unions will not gain the needed political support and will be met by a strong opposition. The application of the quota system and truck queuing is already uneven among countries; however, these schemes 'justify' the existence of institutions that are not formally part of the transport contract and opaque practices in deciding which trucking company provides transport services.

The review of existing studies and the survey of the World Bank staff working on transport and trade facilitation in the region suggest that several reforms have been left out due to the lack of political will to take on strong vested interests in the trucking industry and to the linkages between this industry and the political sphere.

The approach to reforms should emphasize policy dialogue with the truck operators to empower them to become efficient and profitable. National governments' attention should be drawn to the advantages and net benefits of the reforms, including more vibrant trucking companies offering better quality jobs, and reduction of transport costs leading to reductions in consumer goods prices and more competitive exports. The support of civil society organizations involved in trade facilitation is paramount to scale up the outreach and to prevent individual stakeholders from impeding the reforms. Showcasing good practices and lessons learnt from reform experiences elsewhere – for example in the East African Community (EAC) and Southern Africa – should be part of the sensitization to trigger change.

[2] *Convention relative au transit routier inter-États* (TRIE)

Recommendations

The entry point for reforms in the sector is a revised regulatory framework introducing higher quality standards for the industry, supported by a private and public dialogue focusing on compliance by both private operators and public agencies.

Higher standards imply higher fixed costs—newer trucks, better qualified staff, better facilities, for instance. Therefore, to avoid the pressure from the industry to increase prices, efficiency gains must derive from two sources: (i) reducing the capture by intermediaries to ensure that a higher proportion of the price paid by shippers ends up in the pockets of the trucking companies, and (ii) increasing the utilization rate of trucks to spread the impact of higher fixed costs across a larger number of rotations (reduction of idle time between loads and during transport).

Three types of proposed recommendations are relevant across the analyzed corridors in the region, focusing on: Improved standards and transparency, Sector deregulation and reforms related to intermediaries, and The regional agenda.

Across these focus areas, the required reforms cover a number of aspects of transport and transit facilitation, namely: *modes*, which relate to the reforms for professionalizing and formalizing the trucking & logistics industries as well as modernizing the organization of the trucking & logistics markets; *nodes*, or reforms related to enhancing the competitiveness of maritime and inland gateways; and *codes*, or reforms aimed at improving Customs clearance and facilitating transit. Table 1 summarizes the individual reforms under the "*modes*, *nodes*, *codes*" typology. Reforms covering standards and transparency are colored white, those related to sector deregulation and intermediaries – light gray, and those needed to promote the regional agenda – dark gray.

Table 1. Reform priorities matrix: modes, notes, codes

MODES		NODES	CODES	
Professionalizing and formalizing the trucking & logistics industries	*Modernizing the organization of the trucking & logistics markets*	*Enhancing the competitiveness of maritime and inland gateways*	*Improving customs clearance*	*Facilitating transit*
Legal and regulatory framework	Transport services contracting (e.g. truck queuing)	Regulation of the terminal concession (port and dry ports)	Single Window and TIP	Interconnection of Customs
Structuring industry representation and organizing the public-private dialogue	Bilateral transport agreements (e.g. freight quotas)	Improving platform operations (e.g. port-hinterland connectivity)	Promoting compliance: risk management and AEOs for traders	Transit regimes (Guarantee, inter-operability of GPS tracking)
Promoting compliance (e.g. axle load); fleet renewal	Reducing asymmetry of information	Promoting containerization to the hinterland	Promoting compliance: ethics and governance for public officials	One-stop border posts

Improved standards and transparency

Reforms should be geared toward a structural transformation of the trucking sector from its current artisan and non-compliant status to a modern, high-quality service that places the interests of the cargo owners in the center and operates according to the principle of cost optimization while abiding by existing laws and regulations.

Professionalization and formalization of the trucking and logistics industries require (i) establishing a comprehensive legal and regulatory framework, (ii) structuring industry representation and organizing the public-private dialogue, (iii) promoting compliance with existing regulations, and (iv) promoting the use of more efficient fleets. The legal and regulatory framework is the set of rules that govern access to the transport and logistics professions, defining, among others: commercial versus own-account transport; standards for establishing trucking companies; the required expertise of the trucking company staff and the modalities needed to provide and establish that expertise as well as the necessary characteristics of the trucking company assets such as vehicles. The legal and regulatory framework should also be conducive to the establishment of well-resourced formal companies and promote the merger of the many existing small operators. Finally, it should aim to formalize the role of transport brokers. It is expected that the increased level of professionalism of trucking operators, achieved through higher standards for access to the profession and provision of capacity building, will gradually allow them to operate independently from the *coxeurs* and to source freight through more formal and less predatory channels.

Based on international experience, there are three main types of schemes regulating international transport market access, namely national criteria, bilateral road transport agreements, and multilateral agreements and schemes.

Under the national criteria type of schemes, the example of China is relevant in that transport operators must acquire experience on domestic markets and use vehicles corresponding to high technical standards before being authorized to perform international transport services. The multilateral criteria used in the European Union (EU) have been widely replicated at a smaller scale in various parts of the world and are therefore a good reference for designing such a reform.

In many countries of West & Central Africa, the legal and regulatory framework is either incomplete or silent on critical issues.

Depending on the actual gaps, revising that framework may require drafting a new transport sector law or making more minor adjustments through decrees and regulations. However, this cannot be done by governments alone—involving the industry is critical. In many countries, professional unions lack the capacity to effec-

tively participate in the policy dialogue and tend to have limited constituencies. Restructuring the unions, possibly under an umbrella federation, is critical to ensure that the reform-related dialogue includes all stakeholders. The large number of underutilized trucks in the sector implies that reforms aimed at professionalizing the sector (and hence reducing the number of trucking companies in business) would be unlikely to raise the prices of trucking services. However, they would necessarily imply the emergence of different firm structures – i.e. moving from the currently predominant one-man-one-truck model to a model in which each company has at least several employees operating several trucks.

A significant part of the trucking industry in the region will not be able to comply with the new standards set by the proposed reform.

Some operators will need support to restructure their operations to become compliant, such as through additional training and facilitation of access to better vehicles, while some others will not be able to adapt at all and will need assistance to exit the industry, such as training in a new profession. Enforcing the new legal and regulatory framework is equally critical, as perceived lack of compliance can become a trigger for extorting bribes. Compliant operators need to be sufficiently rewarded, such as by providing them with better access to financing. The transition to the new standards needs to be irrevocable but gradual, to give the operators sufficient time for adjustment.

Improving the Customs clearance and border crossing procedures requires a single window system and trade information portals, better compliance with risk management and authorized economic operator schemes for traders, and efforts to promote compliance with increased ethics and governance standards for Customs officials.

Information and communications technology (ICT) tools for trade facilitation have proven very effective in reducing clearance times. Trade information portals inform traders of the various paperwork and procedural requirements linked to their transactions and therefore improve the preparation of the required documents, while single windows have a more operational focus through the automation of the transactions. The lack of good record-keeping of compliance with regulations is closely linked to the lack of incentives for operators to remain or become compliant, given that, in the absence of effective risk management schemes, border agencies apply the same blanket approach and excessive controls to both compliant and fraudulent operators. It is thus important to put in place screening mechanisms – the so-called 'green channels' for authorized economic operators – that make compliance a rational economic choice. Finally, the same way that trucking operators must be incentivized to comply with regulations, it is also important to

establish complaints registration and sanctions mechanisms to eradicate the illegal practices of individual members of border management personnel.

Over the longer term, to enhance the competitiveness of maritime and inland gateways in the region, regulations need to be put in place to guide future port and dry port terminal concessions, and physical investments must be made to improve the port-city interface and port-hinterland connectivity.

Increasingly, the private sector is involved in the management and financing of terminals, both in ports and dry ports, but the public entities often lack adequate skills and instruments to effectively regulate such concessions. Most ports in West & Central Africa are surrounded by metropolitan areas, creating congestion due to the intensive freight traffic movements, while the flow of truck traffic from ports is increasingly impacted by urban congestion. Traffic management measures used to address these bottlenecks should be combined with investments in truck parking facilities outside the cities, close buffer parking yards for trucks planning to enter the port area, and truck appointment schemes to schedule the pick-up and delivery of goods.

Sector deregulation and reforms related to intermediaries

To improve competition in the trucking sector and reduce the role of predatory intermediaries, policy reforms need to, first and foremost, advocate for direct contracting and support modern mechanisms that help match supply and demand.

Standard transport contracts would bring transparency in the roles attributed to each party – shippers, trucking companies, intermediaries – and could constitute an input into a statistical system managed by the transport regulatory authorities to monitor freight markets. Reduction in the asymmetry of information regarding freight availability and demand for trucking services is one way to prevent the predatory practices of intermediaries, and can help trucking and logistics operators to better plan their operations. Online mechanisms such as freight exchanges are one possible solution, although they have had mixed results.

International good practices recognize the desirability of standardizing the conditions governing contracting for the international carriage of goods through consignment notes, particularly with respect to the liability of the carrier. In Nepal, the national authorities, with the help of the United States Agency for International Development (USAID) and the World Bank, are modernizing the legal framework for trucking within the context of a regional corridor project between Nepal and India. The aim of the reform is to eliminate the practice of truck queuing, also prevalent in West & Central Africa, which has been estimated to cost the country

as much as US$65 million per year. In India, it is estimated that the replacement of the currently dominant spot freight transport agreements with the longer-term rate contracts would result in cost reductions per ton-km of about 5-10 percent due to the reduction in empty backhauls and by another 5 percent due to reduction in idle time. In Mexico, the gradual sector deregulation implemented in the 1980s allowed shippers and traders to contract directly with trucking service providers by eliminating the obligation for trucking firms to belong to central cargo stations. Within five years of deregulation, transport prices to end users had dropped by 23 percent in real terms. Similarly, largely because of trucking sector deregulation, trucking costs in France fell by 33 percent between 1978 and 1998.

In the long run, increased containerization of freight all the way to the hinterland will be essential to further enhance the competitiveness of the inland corridors.

Containers were invented for door-to-door use, but many disincentives in the region prevent their use in inland transport. For instance, shipping lines require a deposit before releasing their containers for inland destinations, or low freight volumes in the hinterland lead to high operating costs of the inland container depots (ICD, or dry ports), or trucks and containers are immobilized at their destinations while going through lengthy clearance processes instead of enjoying efficient ICD-to-ICD operations. Moreover, in the absence of overload control, traders have the incentive to combine the freight shipped in several containers on the same truck. Promoting containerization to the hinterland requires overcoming all these constraints, which currently is only possible when the shipping line controls the inland logistics under a through bill of lading.

The regional agenda

Bilateral transport agreements regulate a number of provisions for international transport but mostly focus on cargo sharing arrangements.

Access to the freight market is a sensitive issue in West & Central Africa, with cargo reservations, issues related to return loads, exclusion of "strategic" goods, cabotage restrictions, etc. Liberalizing the movement of goods should be an objective of revised bilateral agreements, including through measures for mutual recognition of transport and logistics services, provisions for transit arrangements, etc.

In addition to liberalizing access to freight through revisions to the existing bilateral agreements, the regional agenda can be advanced through transit facilitation measures such as the interconnection of Customs, improvement of transit regimes, and the introduction of one-stop border posts (OSBP).

The West Africa region has opted for a single Customs declaration covering the entire transit process, and Central Africa has adopted a similar approach, which requires developing interfaces between the Customs IT departments of the countries involved in the transit. However, besides the single Customs declaration, it is also important to have a single guarantee regime covering the transit during the transport process and to ensure the inter-operability of the Global Positioning System (GPS) tracking transit goods. The current TRIE system has not been implemented as intended, although an agreement has been reached by several countries to issue a single guarantee covering two countries at the point of departure, removing the need to duplicate the procedure at the inland border. Moreover, there is a lack of alignment between the development of ambitious OSBP facilities and the planned modalities for the transit regime, in which stops at the borders will be kept to a minimum, requiring minimal facilities.

The impact of individual reforms on transport costs is hard to predict, and it is yet more challenging to estimate ex ante their impact on transport prices, or the cost of transport to the shippers.

Cost structure assumptions depend on several structural and institutional factors, such as the availability of backload, truck utilization, and the overall number of actors making a living from the trucking activities. However, based on the experiences in developed countries, transport and trade facilitation reforms, such as Customs interconnection, sector professionalization, and effective enforcement of axle load regulations on corridors, *can* realistically be expected to reduce uncertainties, or 'hidden costs' of transport logistics. Preliminary estimates suggest that f**or** the region overall, a comprehensive reform of the trucking industry would result in annual net economic benefits in the order of US$400-500 million and could reduce transport prices by nearly one-fifth.

While the reform benefits would certainly be significant in the long run, in the short and medium runs they would generate losses to at least some actors in the transport and logistics 'food chain.'

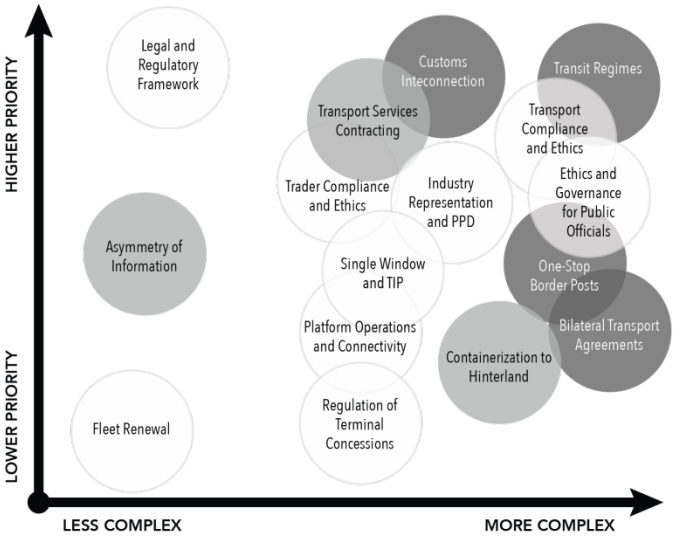
Real or perceived losses might occur due to reform effects, such as the downsizing of the industry and freight bureaus, especially in landlocked countries, and reduced bribes for Customs and other control agencies' staff. Depending on the reform, the likely losers would thus include staff of freight bureaus and shippers' councils, some of the non-compliant truckers (who may or may not be connected

to politicians and policy makers), as well as individual members of the Customs and control agency personnel. Implementing new and meaningful reforms would therefore require bargaining with the identified losers and finding meaningful ways to compensate them in the short and medium terms. Reform implementation would require, above all, a credible commitment from higher authorities and increased coordination between the various public actors—ministries, Customs, and freight bureaus. Reforms geared to promoting the regional agenda would require cooperation between Customs and trucking companies/freight forwarders. Whereas in the past this has not always been the case, the countries' Customs agencies and ministries of finance could serve as reform champions on the ground, if they can be convinced that increased transparency in the sector would in fact represent a win-win solution.

Because reforms will not only create gains but also losses, and based on past experiences in West & Central Africa and outside the region, a gradual implementation approach should be preferred for several of countries, as drastic legal changes may reinforce corruption and perpetuate or even induce informal practices.

Dialogue with key stakeholders will be critical, and there is a role to play for the World Bank and development agencies in brokering a deal between public authorities and potential reform losers, drawing on lessons from the Development Policy Operations (DPO), Investment Project Financing (IPF) projects, and technical assistance operations that have been financed in the region in the last decade. Figure 1 outlines a notional framework for implementing the proposed recommendations, where the horizontal axis can be thought of as representing their relative feasibility/complexity and the vertical axis – their relative importance or urgency. As noted previously, the existence of a robust legal and regulatory framework will be paramount for improving sector efficiency, although its full development may realistically be achieved only in the longer term. Similarly, high on the list of priority interventions are measures to enforce compliance with existing regulations and the introduction of more competitive and transparent transport services contracting mechanisms. Although less politically sensitive and therefore more easily implementable in the short term, measures such as financial support for truck fleet renewal are not, by themselves, considered to be of highest priority. However, their implementation is key for helping the operators more easily adjust to the other proposed reforms, such as those aimed at sector professionalization and liberalization. In other words, fleet renewal support schemes represent one of the few 'carrots' available to implement other, more painful, reforms.

Figure 1. Feasibility & relative priority for implementing trucking sector reforms



West & Central Africa Trucking Sector Background

Economic growth and employment in West & Central Africa largely continue to rely on basic unprocessed agriculture and extractive industries. Its landlocked countries are characterized by marked trade imbalances, with imports dominating trade volumes.[3] Inefficient logistics and transport systems as well as high logistics costs are among the key factors that negatively influence trade and hinder growth and poverty reduction. Exports and growth in the agro-pastoral and mining sectors and the supply of capital and consumer goods depend on this transport and logistics system.

Transport prices for most African landlocked countries range from 15 to 20 percent of imports costs[4], which is three to four times higher than in most developed countries. Inland transport in West Africa accounts for between 30 to 63 percent of financial logistics costs (depending on the corridor) and between 19 and 50 percent of 'hidden' logistics costs, or logistics costs related to the unreliability of deliveries. Transport costs per ton-km vary from US$0.06 to US$0.19, depending on the corridor, and rail costs are comparable.[5]

The transport sector generates about 6 percent of the region's GDP.[6] Road freight transport is particularly critical for economic development as it is often the dominant mode of transport connecting production areas with consumption centers within countries and within the region; in the case of intercontinental trade, road transport allows reaching maritime gateways or the final destinations after shipping. In West & Central Africa, where railway networks are disjointed and rare, and inland waterway transport is at best the domain of small scale operators, the

[3] World Bank. (2016b). *Project Appraisal Document for Second Regional Trade Facilitation and Competitiveness Development Policy Loan to Burkina Faso and Côte d'Ivoire.*

[4] Raballand, G. and P. Macchi. (2009). *Transport Prices and Costs: The Need to Revisit Donors' Policies in Transport in Africa*. The World Bank, Washington D.C.

[5] Nathan Associates. (2013). *Logistics Cost Study of Transport Corridors in Central & West Africa.*

[6] World Bank. (2010). *Project Appraisal Document for the Abidjan-Lagos Trade and Transport Facilitation Program.*

reliance on roads is very high, especially for landlocked countries facing added handicap of long and complex transport to and from the maritime gateways.

For landlocked countries, like Burkina Faso, Mali, Niger and Chad, the transport sector plays an essential role in reducing isolation, both within the country and vis-à-vis the outside world (World Bank, 2016b). The economies are highly dependent on imports and thus on the efficient operation of the international transport system for their supply of numerous strategic products (especially hydrocarbons) and consumer and capital goods (such as construction materials and agricultural inputs). The efficient operation of the international transport system is important for enabling their exports to be competitive in the international market. Domestic connectivity is also important as activities are spread out over a wide geographic area.

The slow decrease of poverty in the region can be partly attributed to the difficult business environment, as high trade and transport costs, which hamper structural transformation toward higher value-added activities and productive jobs. High transport costs, in turn, contribute to disconnecting rural areas from national, regional, and international markets, making it more difficult for rural inhabitants to sell their products, access economic opportunities in urban centers, and find goods at reasonable prices (World Bank, 2016b). Road infrastructure investment remains a priority, as nearly all the major corridors suffer the consequences of poor maintenance policies and overloading, making the infrastructure investments unsustainable. Yet, while there is plenty of need for further improvements in infrastructure, physical road conditions are not as important a constraint to trade as they use to be. Policy reforms that reduce costs and increase competition in transport and logistics services are now critical.[7] For example, estimates suggest that reforms that increase competition in the transport sector could reduce the cost of transporting staple goods in West Africa by 50 percent within 10 years.[8]

In sum, instead of being an enabler of trade, transport is an obstacle, combining poor efficiency and high costs. The root causes for this situation are many and inter-related. Historically, over-reliance on railway, which was carrying more that

[7] World *Bank*. (2012b). *Africa Can Help Feed Africa: Removing Barriers to Regional Trade in Food Staples*. Africa Trade Policy Notes, No. 34. Beuran, M., M. Gachassin, and G. Raballand. (2015). *Are There Myths on Road Impact and Transport in Sub-Saharan Africa?* Development Policy Review, 33(5): 673-700.

[8] USAID. (2011). *Regional Agricultural Transport and Trade Policy Study*. West Africa Trade Hub Technical Report #41.

60 percent of international trade volumes of the region's countries, and the optimism for a soon completion of the giant "Sahel railway belt" project, largely explain why the road transport sector was neglected at both the physical infrastructure and the service provisions levels. Even when rail transport failed to achieve its expectations and road transport gradually became the dominant transport mode both for international and intra-regional trade, the transport industry remained seen – by the operators themselves and the public decision makers – as a private commercial venture open to everyone and capable of self-regulating. Only recently, emphasis has been put not only on the improvement of the physical infrastructure but also the removal of non-tariff barriers. Yet even today, the road transport industry in West & Central Africa tends to be excessively portrayed as being adversely impacted by "externalities" to justify its internal inefficiencies.

The degree of understanding the sector has evolved over the past decade, shifting the intervention focus from infrastructure improvements to reforms of the regulatory environment, or, in other words, from investment to policies. An important lesson learnt during that shift was that not all stakeholders are impacted equally, and if many loose from existing inefficiencies, a few benefit greatly. The political economy[9] of the necessary reforms is complex, because, by shifting the status quo, they create winners and losers, and often losers with influence. Moreover, as shown convincingly in the conflict and negotiations literature, losers are likely to fight for their interests harder than winners, because of loss aversion and the higher valuation of losses compared to gains. In other words, loss aversion is a powerful force that favors the preservation of status quo in the lives of both institutions and individuals.[10]

[9] Political economy seeks to explain how political institutions, political environment, and the economic system influence one another. Key areas of study in political economy research include the role of government or power relationships in resource allocation in the economy, monopolies, rent-seeking behaviors, or institutional corruption.

[10] See Kahneman, D. (2011). *Thinking, Fast and Slow*. New York: Farrar, Strauss, Giroux.

Research Questions, Methodology & Data Sources

Within the World Bank Group it has become widely accepted that there is a need to understand the political economy context of reforms to be able to effectively assist countries in designing and implementing development strategies and policies. Political economy analyses typically consider stakeholder interests, incentives, rent distribution, historical legacies, prior experiences with reforms, and how these factors affect change. One of the primary conceptual frameworks on political economy is the work by Fritz, Kaiser, and Levy[11], which explicitly emphasizes 'problem-driven' analysis, such as why reforms in a given sector have not gained traction and what could be done differently to move forward.

Political economy analysis is important where and when governance and political economy factors appear to prevent progress that is otherwise considered possible from a technical perspective ('developmental risk', Fritz et al. 2009, p. 10). Sector-level analysis is especially relevant when envisaged reforms are significant and are likely to be difficult because of their distributional impact, their institutional complexity, or the structure of incentives and constraints. It is also important where changes in a sector or policy area have been on the agenda for a long time without ever materializing and when earlier improvements in sector policies or outcomes were reversed. Finding feasible approaches to reform may include prioritizing what vulnerabilities and concerns can be addressed with a reasonable chance of success and proposing how governance arrangements can be improved in a way that is not likely to be subverted by political economy drivers.

The road transport sector tends to be politicized, especially in countries that heavily rely on it for their food security and overall trade; evidence of political economy issues in trucking abounds regardless of the country's income level. As noted by Wales and Wild[12], in countries where the relationships between politicians and citizens, or between ruling elites, state bureaucrats and sector actors are predomi-

[11] Fritz, V., K. Kaiser and B. Levy. (2009). *Problem Driven Governance and Political Economy Analysis: Good Practice Framework*. The World Bank, Washington, D.C.

[12] Wales, J. and L. Wild. (2012). *The Political Economy of Roads. An Overview of Existing Literature.* London, Overseas Development Institute.

nantly clientelistic, they will generate political incentives to provide public services, regulations, and infrastructure with a bias towards particular regions or population groups, in socially suboptimal and economically inefficient ways. In the transport sector, such pressures often result in a bias towards visible projects (e.g. new roads and infrastructure), and a neglect for less visible, but more demanding maintenance, appropriate regulatory measures, and compliance mechanisms. In West & Central Africa, regional instability remains a key factor in influencing the behavior of stakeholders, political decision logics, and in general, the incentive environment. For example, this implies that incentives to maximize gains in the short term are prioritized over those that could be made in the long term. Similarly, long-run economic structures, trade patterns and economic imbalances in the region affect sector reform dynamics.

While notable gains have been made in improving the road infrastructure in the region, key policy reforms that would correct the market distortions and increase the value of infrastructure investments have yet to follow. The complicated political economy characterizing some of the core policy issues and the lack of coordination between countries have in the past hampered progress to modernize the road transport sector and are partly to blame for the limited implementation of some key regional initiatives adopted at the level of the West African Economic and Monetary Union (WAEMU)[13] and the Economic Community of West African States (ECOWAS).[14] The recent difficulties with implementing axle load restrictions are one example of the political economy challenges related to the harmonization of practices across the region. A harmonized standard has been agreed on at the regional level; however, among those that signed up to the agreement, deadlines for implementation have repeatedly been missed and currently implementation is uneven, illustrating the widespread reluctance among the governments to prevent a practice that truckers are considering, wrongly, essential to their survival.[15]

The present SSATP paper intends to provide a comprehensive overview of this and other trucking sector inefficiencies in the region, and characterize the key political

[13] Senegal, Guinea Bissau, Côte d'Ivoire, Togo, Benin, Mali, Burkina Faso, and Niger.

[14] Cape Verde, Senegal, Gambia, Guinea Bissau, Sierra Leone, Liberia, Guinea, Côte d'Ivoire, Ghana, Togo, Benin, Nigeria, Mali, Burkina Faso, and Niger.

[15] ODI (2012). *Final report: Political Economy of Regionalism in West Africa*. Overseas Development Institute; Chambers, V., M. Foresti and D. Harris.

economy challenges that have prevented meaningful reform thus far. Specifically, it aims to:

1) Synthesize the existing quantitative and qualitative evidence on ways in which political economy impacts or prevents reforms aimed at improving the competitiveness of trucking and logistics services in selected countries within the region,

2) Identify relevant examples of trucking sector reform in countries outside the region and analyze how their lessons learnt could be applied to West & Central Africa, and

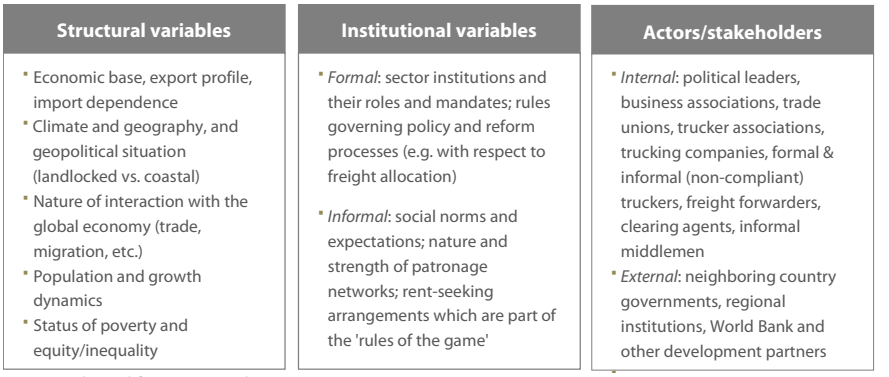
3) Provide guidance for future World Bank engagement in the sector: identify what types of engagement with the country governments that have worked well, as well as what have been their main limitations.

The core part of the paper reviews the existing analyses of the inefficiencies of trucking in the transit corridors in West & Central Africa, and extracts data and qualitative observations specific to the role of the political economy environment. It brings together the existing evidence on the causes and costs of non-competitive practices, the reforms needed to address these practices, and practical experience from other countries in carrying out reforms. It includes a mapping of the political economy institutions that have been involved in reforms in the selected corridors or that could possibly serve as champions of reforms in the future. The goal of this effort is to enhance and consolidate knowledge as well as help in future dialogue with client governments.

The paper considers not only *structural* and *institutional* factors impacting reform progress but also analyzes the specific roles of relevant *stakeholders* (Figure 2), documenting evidence on their positions vis-à-vis proposed reforms and levels of influence and power. Stakeholders in this case include all the actors that are part of the 'trucking sector' in the broad sense, from truck drivers and trucking companies, to various formal and informal intermediaries. Among others, the questions guiding this part of the inquiry include:

- Who stands to win and lose from the reform?
- What have been and/or are likely to be the implications of stakeholder opposition for reform prospects?
- How have external stakeholders, such as the World Bank, influenced reform processes in the past?

Figure 2. Focus areas of the political economy analysis



Source: Adapted from Fritz *et al,* (2009)

The geographic coverage of this work is limited to the major transport corridors in the region (Figure 3), selected based on their role in the region's trade, availability of recent trucking sector data, and the World Bank's past and current sector engagement efforts. The specific corridors selected for analysis are:

- Dakar-Bamako (for which a World Bank operation is under preparation)
- Abidjan-Ouagadougou corridor (for which a DPO has been prepared)
- Abidjan-Lagos corridor (a priority corridor for ECOWAS)
- Corridors from Lomé to inland destinations, primarily focusing on Lomé-Ouagadougou (given the ongoing World Bank's Togo Logistics Program, which includes reforms of the trucking industry)
- Douala-N'Djamena (for which recent trucking survey data is available, and where the World Bank is supporting the introduction of more transparency in trade flows from the Port of Douala), and
- Cotonou-Niamey (given the importance of the corridor for serving the landlocked Niger).

This task is largely a desk review of existing published research, World Bank project documents, and the trucking industry surveys that have recently been conducted with World Bank support in Côte d'Ivoire, Burkina Faso and Togo. In addition, this part of the paper also draws on responses from several World Bank staff involved in trucking and trade facilitation reforms in the region or elsewhere.

Figure 3. Map of analyzed corridors

Trucking Sector Stakeholders in West & Central Africa

The key groups of stakeholders in the region's trucking sector include national-level actors, such as regulatory and enforcement agencies and private sector operators, as well as the Regional Economic Communities (RECs) and the individuals that work for the various stakeholder categories, as it is not uncommon that their personal interest and the interest of their employers differ, if not contradict one another. This section provides an overview of the roles of the various public and quasi-state and private stakeholders as well as the main RECs.

Public and quasi-state stakeholders

Road transport sector in the region is characterized by instability in the structuring and organization of frontline ministerial departments responsible for transportation and infrastructure and a multitude of national stakeholders involved in the development of regulations and infrastructure, creating jurisdictional and regulatory conflicts.[16] The functions performed by public and quasi-state actors include maintenance and funding of transport infrastructure, transport services regulation and enforcement (e.g. road safety), traffic policing, Customs and other border management for bonded transport, as well as coordination and public-private dialogue (e.g. trade and transport facilitation). Ministries are the main public sector actors, responsible for regulating the sector, including licensing and operations control (weighbridges, for instance). Border management agencies (Customs and other trade agencies) directly interface with the trucking industry.

In addition to the line ministries for transport and trade, shippers' councils, chambers of commerce, industry associations, commodity boards, and marketing agencies are important groups of quasi-state actors. Unlike the name would lead to believe, shippers' councils are not professional associations of shippers but agencies under the ministries of transport. Shippers' councils in West Africa collect information on the consignments and issue cargo tracking notes (covering shipping and also inland transport). In Central Africa, their function is limited to the shipping tracking notes, while dedicated freight bureaus issue tracking notes for

[16] World Bank. (2016b). *Project Appraisal Document for Second Regional Trade Facilitation and Competitiveness Development Policy Loan to Burkina Faso and Côte d'Ivoire.*

land transport. Both types of institutions derive their mandate for land tracking notes from the bilateral road transport agreements that have been signed between countries (discussed later). Chambers of Commerce and Industry are traditionally the national guarantor for the road transit guarantee regime (TRIE, or ISRT – Inter-State Road Transit). They issue the *ISRT carnet* and collect an ad valorem fee on transit goods. In some countries, the fees are collected in a fund financing trade facilitation activities or institutions.

In several countries, parastatals control the imports of petroleum products and fertilizers or exports of various commodities (cotton and cocoa in several countries, phosphates in Togo, aluminum in Guinea, etc.), and therefore act as shippers when contracting transport and logistics services. Because of their control of a large share of the transport demand and due to their requirement for high-quality, reliable services, these actors can potentially provide positive incentives for sector reform, such as by restricting the choice of their providers to compliant operators.

In many cases, the interests of the employees of these various state and quasi-state institutions differ from the interests of the institutions themselves, compounding the complexity of the political economy of the industry. For example, based on the on-the-ground experience of the authors, it is not uncommon for enforcement personnel to misuse their position to extract rents, and for Customs officers to accept or solicit bribes for covering up undervalued declarations, smuggling of prohibited goods, or clearance of goods by non-licensed importers. Individual police officers that control the corridor check points or conduct mobile patrols are known to abuse their mandate by extorting funds from truck drivers or small traders traveling with their goods. Staff in charge of procedures at gateways and borders, similarly, demand money before discharging their duties. Employees of trade unions are known to connive with informal middlemen and entrust them some of the consignments against informal commissions. In effect, these employees, along with executives of the decisions making bodies, distort the rules in place for cargo sharing to favor their own vehicles. Public and civil servants in influential positions – including army and police officers, senior public decisions makers in the ministries involved in road transportation, and senior staff of port authorities – sometimes themselves own trucks or shares in trucking companies, and are therefore biased in their analysis of the situation and the solutions proposed, or outright undermine all efforts aimed at ensuring effective compliance with existing regulations or the introduction of new reforms that could jeopardize their rent seeking positions. It is very important to take into consideration the possible aver-

sion to reforms on the behalf of the staff of institutions that are critical in transport and logistics programs, because their reluctance can – and has in the past – derail reforms even if the institutions they work for appear to champion them.

Private sector stakeholders

Almost all private stakeholders in the West & Central Africa trucking industry can be classified into those that comply with legal and regulatory requirements (i.e. 'professional' operators) and those that do not, instead, operating at varying degrees of informality.[17] The private sector stakeholders directly involved in the trucking sector include shippers, clearing and forwarding (C&F) agents, also known as freight forwarders, stevedores, transport brokers, trucking operators and truck drivers as well as their respective professional unions.

The intermediation between transport demand (from shippers or their C&F agents) and transport supply (by trucking companies) is the role of transport brokers, which is legally defined in the developed world but not in West & Central Africa. Here the function is performed by a category of intermediaries known in some countries as 'coxeurs,'[18] that frequently have predatory practices and do not operate based on a formal contractual agreement. For instance, in Côte d'Ivoire, in theory, the market has been liberalized and shippers have the right to negotiate directly with the carriers, but in practice, access to cargo and loads usually pass through a coxeur. Coxeurs charge a commission of about US$85 per loaded vehicle to Ouagadougou or Bamako, but the agreement is usually only verbal. They tend to maintain a network of truckers and a few contacts among shippers or C&F agents. From the latter, they obtain information about transportation needs (loads, destinations) and select the eventual recipient of the transport order among the truckers in their network. Their role is discussed in more detail later on.

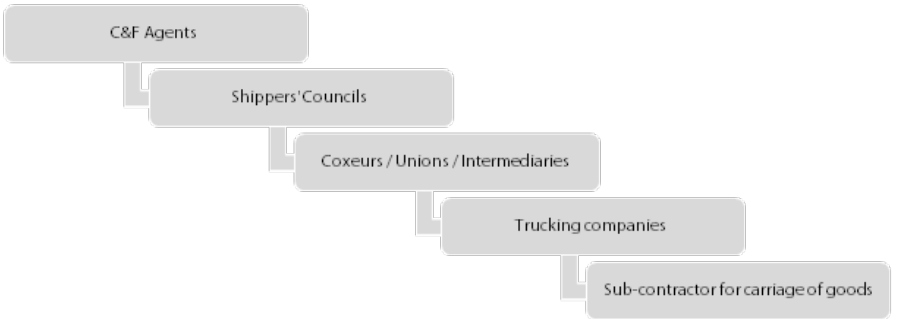
The business models per which the trucking services in the region are provided diverge, depending on the category of the operator. The so-called 'commercial' trucking companies provide transport services to shippers and include both very small-scale operators (i.e. one man – one truck) as well as trucking companies.

[17] OCAL / World Bank. (2014). *Industrie du Transport au Niger et au Benin*. Secrétariat Exécutif de l'Organisation du Corridor Abidjan-Lagos.

[18] Unlike formal C&F agents, *coxeurs* are not legally bound and perform only select functions. For example, C&F agents have a function for Customs clearance, not coxeurs.

The third type of truckers is own-account operators who carry their own goods.[19] Small-scale operators often have limited education or training and tend to operate older vehicles using traditional management practices and relying on extended family networks. These types of truckers hold minimal written records, including financial, tend to overload their vehicles, and are known to pay bribes to officials who condone these operations. In contrast, trucking companies use more modern management techniques and newer vehicles. Lastly, own-account operators are an integral part of firms engaged in other economic activities such as trading, manufacturing, and agriculture, and support these by transporting their products. Small-scale truckers are thought to make up as much as 90 percent of the international trucking industry in the region.[20]

Figure 4. The road transport sector 'food chain'



Since many of the small-scale operators in fact hold transport licenses and are not operating 'illegally,' a more meaningful characteristic that distinguishes the vast share of the region's trucking companies is their individual enterprise status – i.e. the small owner operator – rather than the more commonly used 'informal'. The small size of the owner-operators has implications for their positioning in the road transport 'food chain' (see Figure 4), or the hierarchy of influence and dependence within the sector: without formal administrative support, their role is limited, and their dependence on intermediaries is high. Their fleets are generally characterized as old and in poor condition, while the fleets of the larger trucking companies and the own-account operators are newer and better maintained (Nathan Associates,

[19] Nathan Associates (2012). *Impacts of Road Transport Industry Liberalization in West Africa: Final Report*. Submitted to USAID.

[20] Zerelli, S. and A. Cook. (2010). *Trucking to West Africa's Landlocked Countries: Market Structure and Conduct*. West Africa Trade Hub Report #32.

2012). Fleets of landlocked countries have tended to be in worse shape than those of coastal countries (Zerelli and Cook, 2010), despite recent exceptions.

Trucking is a profession with a very high rate of unionization but also very fragmented representation. Nevertheless, unions provide a number of services to their members: for instance, managing parking and rest areas (for a fee), offering protection and security services, and, occasionally, roadside assistance. In addition, they also frequently intervene in the negotiation of freight rates and, at the ports, match member truckers with available loads (World Bank, 2016b).

Regional Economic Communities and regional organizations

Regional Economic Communities, as regional integration entities, have two important mandates for transport and logistics: (i) harmonization of transport and logistics services at the regional level, to create a regional market for freight, and (ii) Customs integration. In West Africa, there are two main formal regional bodies that provide institutional frameworks for regional cooperation and integration—the Economic Community of West African States (ECOWAS) and the West African Economic and Monetary Union (WAEMU). Both aim to increase trade integration and policy coordination between their member states. However, differential progress has been made by the two organizations, which are perceived to have different strengths reflecting both capacity gaps and a number of political economy factors. WAEMU has made greater progress towards economic integration as a Customs union and as a monetary union, while ECOWAS has demonstrated greater strength in regional policy coordination in areas such as security and infrastructure. As all WAEMU member states are also ECOWAS member states, there has been a tendency to concentrate on ECOWAS when considering the issue of regional integration. However, WAEMU is still a significant regional actor and one which has, arguably, been more successful at overcoming the coordination problems critical to integration processes.[21]

In addition to these two regional bodies, the Abidjan-Lagos Corridor Organization (ALCO) was established in 2002, comprising the five countries crossed by the corridor (Côte d'Ivoire, Ghana, Togo, Benin and Nigeria), as the institution in charge of trade facilitation along the coastal corridor. ALCO has already proved instru-

[21] Harris, D., V. Chambers and M. Foresti (2011). *The Political Economy of Regional Integration and Regionalism in West Africa: A Scoping Exercise. Draft Literature Review.*

mental in the implementation of donor initiatives in the region. For example, in the case of the World Bank's *Abidjan-Lagos Trade and Transport Facilitation Program* (ALTTFP), it provided timely reports on regional and country performance indicators and acted as a catalyzer by organizing and conducting workshops of regional interest.[22] In Central Africa, the main REC is the Central African Economic and Monetary Community (CEMAC),[23] but the instability of the Central African Republic, where CEMAC is headquartered, has impacted its effectiveness.

Across the region, the RECs have developed a set of regional instruments, such as the CEMAC Community Road Code, regulating the provision of transport and logistics services in the community space. However, many of the regional instruments adopted are not fully implemented when implementable. The regional instruments cover a broad set of issues, including modalities for transport services on the corridors, road safety, vehicle standards, axle load control, transport contracts, and transit regime and regional Customs instruments.

[22] World Bank. (2017d). *Implementation Status and Results Report for Abidjan-Lagos Trade and Transport Facilitation Project.*

[23] Gabon, Cameroon, the Central African Republic, Chad, the Republic of the Congo, and Equatorial Guinea.

Characteristics of the Analyzed Corridors

The West & Central African road network is relatively small, mostly limited to trunk roads connecting the main economic centers. The road network in West Africa is relatively more comprehensive, roughly structured by two East-West arteries: (i) the trans-Sahel route connecting Dakar to Niamey and (ii) the coastal Abidjan-Lagos route, with South-North connections between the two at each main port along the coastline. In contrast, the network in Central Africa is more disjointed—poorly connected to West Africa and within itself. Across the region, road transport takes multiple forms with varying degrees of complexity, from purely domestic – only unimodal – to regional – still unimodal but with Customs procedures – to international – multimodal with complex Customs procedures (see Table 2 below).

Table 2. Typology of the complexity of transport issues depending on corridor type

	Multimodal	Gateway procedures	Land borders procedures
International (landlocked)	☑	☑	☑
International (coastal)	☐	☑	☐
Regional trade	☐	☐	☑
Domestic	☐	☐	☐

Especially for the region's landlocked countries, an explicit objective of reform programs in the sector has been to improve the efficient provision of transport services on key intra- and inter-regional corridors to better serve the tradable sector of the economy and integrate into the regional and global economy. The problem of distance to global markets for these countries is further exacerbated by physical, bureaucratic, regulatory, and legal barriers associated with crossing borders. Low trade volumes limit the bargaining power of such countries with global logistics groups, often forcing them to rely on foreign intermediaries to consolidate shipments. The *corridor approach* offers advantages to these countries in accessing higher quality infrastructure that helps consolidate flows, which in turn justify higher quality infrastructure and services.[24] A corridor-level approach to

[24] Kunaka, C. and R. Carruthers. (2014). *Trade and Transport Corridor Management Toolkit*. World Bank, Washington, D.C.

analyzing the inefficiencies and needed reforms is also justified by the fact that many of the necessary reforms require joint or coordinated action by two or more countries, for instance, regarding the modernization of criteria to access the trucking profession, the control of axle loads, or transit procedures. Freight transport sector reforms have to inevitably deal with bilateral or even regional dynamics, in which the international corridor provides a conduit and potential opportunities for public and private reformers to cooperate and coordinate. Even if this set of reforms would not achieve its ambitious goals, these dynamics and their coalitions may themselves create an environment and intermediate outcomes that provide a basis on which to ground or adapt further reforms. Table 3 provides an overview of physical and market characteristics of the corridors selected for analysis.

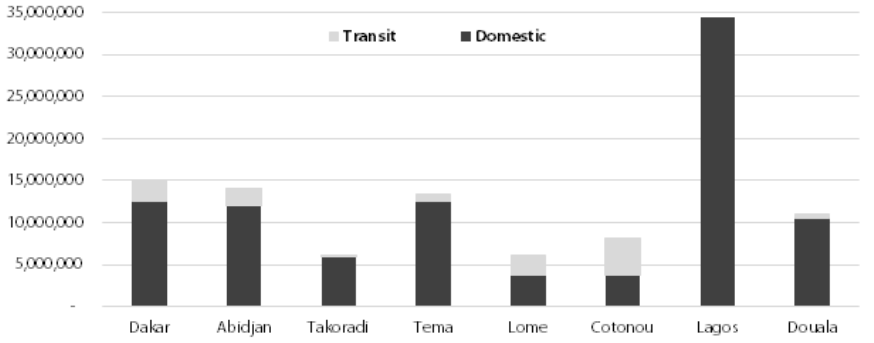
Fully understanding the factors influencing transport prices in a given country requires looking into a diverse set of shipments that includes long and short hauls, large and modest loads as well as international and domestic routes. It is often at the regional or international level that governments are most conscious of the importance of corridors for trade and transport purposes and can engage in cooperation with their neighbors. Through infrastructure development and regulation of services, the public sector can be an important driver of corridor development, often leading market dynamics. Underlying the motives of either the public or private sectors in driving corridor development is an acknowledgement of the potential of scale effects, the ability of a corridor to connect major economic centers and to concentrate demand on a few routes between them (Kunaka and Carruthers, 2014).

Table 3. Characteristics of the analyzed corridors

Dakar-Bamako	Abidjan-Ouagadougou	Abidjan-Lagos	Cotonou-Niamey	Douala-N'Djamena	Lomé-Ouagadougou
		LENGTH (KM)			
1,470	1,200	1,000	1,035	1,630	1,000
		MAIN CITIES CONNECTED			
Dakar, Kaolak, Tambacounda (Senegal) – Kidira (border) – Kayes, Bamako (Mali)	Abidjan, Yamoussoukro, Bouake (Côte d'Ivoire) – Ouagadougou (Burkina Faso)	Abidjan (Côte d'Ivoire) – Accra (Ghana) – Lomé (Togo) – Cotonou (Benin) – Lagos (Nigeria)	Cotonou (Benin) – Niamey (Niger)	Douala, Bafia (Cameroon), Garoua, Maroua (Cameroon) – N'Djamena (Chad)	Lomé, Atakpamé Kara (Togo)- Cinkassé (border) – Tenkodogo, Ouagadougou (Burkina Faso)
		TRADE VOLUME			
Maritime transit was 2.4 million tons in 2016	Maritime transit to Burkina Faso was 1.2 million tons in 2016	Trade among the 5 corridor countries was ~ $5 billion in 2014	Maritime transit to Niger was 3.2 million tons in 2016	Transit to Chad was 283,000 tons in 2016	1.4 million tons in 2016
		MAIN GOODS			
Cotton, cement, salt, oil products, cereals, rice, fertilizer, miscellaneous products	Cotton exports from Burkina Faso	Oil & derivatives, cement, chemical, paper, textiles, plastics, rubber goods, cotton, food	Minerals & metals, fuels, manufactured goods, food	Petroleum products, chemicals, iron, food	Cotton exports from Burkina Faso; cement, salt, sulfur, fats and oils, cereals, mineral oil
		COST OF TRANSPORT ON CORRIDOR			
$2,300 (cotton export), $4,150 (rice export), $2,600 (rice import)	$5,095 for a 20-ft container	From Lagos to Accra (470 km), the average price is US$4,200 per 40-ft container	$3,938 for a 20-ft container	$3,780 to $4,530 for a 20-ft container	$4,092 for a 20-ft container
		FLEET CHARACTERISTICS			
About 400 trucks per day (85% Malian); 60% of carriers have only 1 vehicle; fleet is newer in Mali than Senegal, where as much as 85% of vehicles are more than 10 years old	Average fleet age is 21 in Côte d'Ivoire and 13 in Burkina Faso; 43% of Burkinabe and 15% in Ivorian truck companies own only 1 truck; average fleet size in both countries is 3 vehicles; tanker trucks and trailer trucks dominate the Burkinabe fleet; the Ivorian fleet is dominated by van trucks dump trucks	Average age of vehicles > 20 years; ~ 90% of the fleet belongs to individuals; mostly multipurpose vehicles transporting general cargo; cross-border traffic on the corridor is most intense on the Benin-Togo border (>2,700 vehicles per day)	Truck fleet average age is 25 years in Niger and 27 years in Benin; the average truck fleet size is 3 vehicles; involvement in international traffic is higher among truckers in Niger than in Benin; own-account transport represents 58% of trucks in Niger and 22% in Benin	Most operators have old fleets with predominantly large trucks (35-40 tons capacity); the average age of these trucks is somewhat younger in Cameroon (15 years) than in Chad; transit truckers employ larger vehicles, on average, than truckers carrying intra-regional trade	Average age of trucks in Togo is 17 years; 30% of the active fleet is composed of container carriers, 6% of tank trucks, and 64% of conventional trucks; 24,431 trips were recorded on the corridor in 2015, and there were 7,002 trucks appearing in the system

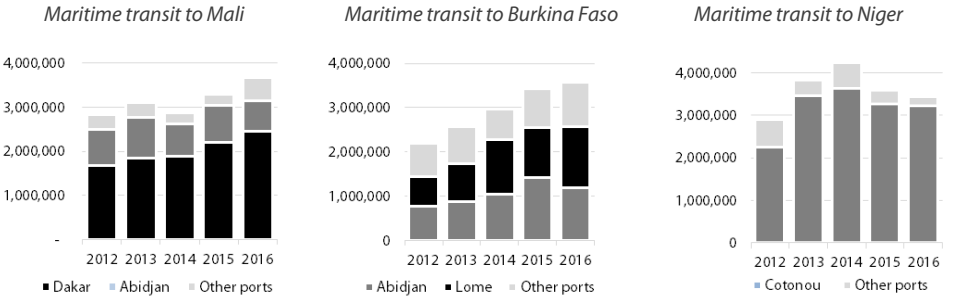
Most ports in the region primarily serve their domestic markets, and transit traffic to third countries represents a small fraction of their throughput, with the notable exception of Benin. Figure 5 compares transit versus domestic traffic for West & Central African ports in 2016, the percentage representing the proportion of transit in the total port traffic.

Figure 5. Domestic versus transit traffic through West & Central African ports (authors' calculations)



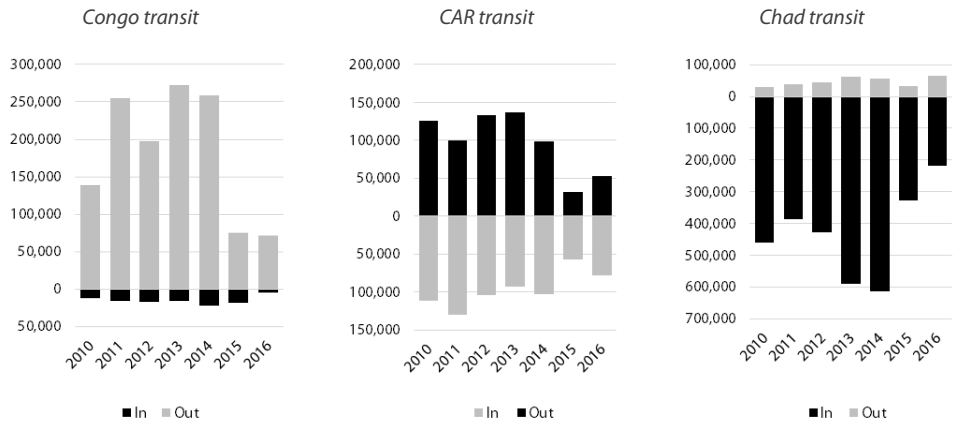
The region's ports mostly compete for transit traffic to the landlocked Mali, Burkina Faso and Niger, amounting to over 10 million tons. Over the past two decades, the respective market shares of the maritime gateways have evolved, the long civil unrest in Cote d'Ivoire disrupting established positions and providing new opportunities for the other ports. Abidjan used to be the main gateway for Mali and Burkina Faso, but has since been overtaken, respectively, by Dakar and Lomé. Further from Cote d'Ivoire, and with an established relationship with Benin, Niger continues to rely primarily on Cotonou (see Figure 6).

Figure 6. Transit traffic to West Africa's landlocked countries, by port (authors' calculations)



In Central Africa, Douala is the nearly exclusive maritime gateway for the landlocked countries. However, the transit patterns differ by country to some extent: mostly export for Congo, mostly import for Chad, and almost balanced for the CAR (see Figure 7).

Figure 7. Transit traffic to landlocked countries through Douala (authors' calculations)



Drivers of Trucking Costs and Prices

Overview

Transport prices along corridors in Africa are, on average, higher than in South Asia or Brazil, but they are most high in West & Central Africa (Kunaka and Carruthers, 2014). For instance, on the Douala-N'Djamena route, prices are at about US$0.11 per ton-kilometer, or three times higher than in Brazil (US$0.035) and more than five times higher than in Pakistan (US$0.02). A comparison of the overall costs of transporting goods on the different corridors is shown in Table 3.

Much of the transport price burden in Africa relates to the overall political economy of freight logistics which exacerbates the problems in trade and transport facilitation found in the rest of the world (Macchi and Raballand, 2009). The study on transport costs and prices across Africa[25] analyzed the gaps between vehicle operating costs and market transport prices in the main Sub-Saharan Africa regions, relating the apparent disconnect to market regulation practices, and arguing that large profit margins were being gained by trucking firms. Based on trucking surveys of more than 400 companies in thirteen African countries, including Niger, Burkina Faso and Togo, Macchi and Raballand further demonstrated that, while transport *costs* (or costs to transport service providers) are not excessively high in SSA, transport *prices* (or costs to shippers) are, especially in Central Africa. They explained this to be mainly a result of official and unofficial market regulation and structure in trucking services. A complementary approach to studying the issue was developed[26], focusing on landlocked countries and highlighted the importance of uncertainties in transit times as a contributor to high transaction costs.

[25] Terevaninthorn, S. and G. Raballand. (2009). *Transport Prices and Costs in Africa: A Review of the International Corridors*. World Bank, Washington, D.C.

[26] Arvis, J.-F., G. Raballand, and J.-F. Marteau. (2010). *The Cost of Being Landlocked: Logistics Costs and Supply Chain Reliability*. World Bank, Washington, D.C.

Subsequent studies have found the price distortions to be not quite as substantial and have identified significant variation in the scale of distortion (see Zerelli and Cook, 2010; Nathan Associates, 2013). Large discrepancies in the trucking operating costs, both variable and fixed, exist along the different West & Central African corridors, and similar discrepancies are also present within the same corridors between formal and large truckers operating new vehicles and informal and small truckers operating old vehicles. Across the corridors, prices are not directly related to logistics costs, partly due to powerful transporter unions, middlemen and verbal contracts, as well as due to the large trade imbalances.

Transport and logistics costs differ quite widely depending on the corridor, which can at least partly be attributed to the corridor length but also to variable efficiency of transit services.[27] The overall cost[28] of transporting a 20-foot container is the lowest on Cotonou-Niamey, at US$3,938, while it is the highest on the just slightly longer Abidjan-Ouagadougou corridor, at US$5,095. The share of road transport costs in the overall transport and logistics costs is the highest on the Dakar-Bamako corridor, which is at least partly explained by the corridor's greater length. In addition to the formal costs, there are various informal costs in each step of the logistics process. For example, on the Dakar-Bamako corridor an additional US$111 is incurred in informal road transport costs, US$10 in informal Port/Customs/shipping payments, and US$48 in informal border/Customs clearance costs. There appears to be a particularly high incidence of bribes on the Douala-N'Djamena corridor, representing as much as 13 percent of total costs, compared to less than half that on corridors such as Accra-Ouagadougou or Tema-Bamako (see Terevaninthorn and Raballand, 2009; cited in Beuran et al., 2015). From arrival at the port to the finalization of Customs clearance procedures at the destination, it takes longest, or 19.7 days, on Cotonou-Niamey and shortest (11.6 days) on Lomé-Ouagadougou.

[27] However, it is difficult to directly compare the corridor cost figures cited by different studies, as what is counted in the final cost widely differs, as do the survey sample sizes and data collection methods. Moreover, the raw data on which the conclusions of the studies are based are not available for re-analysis.

[28] In the Saana Consulting (2015) study, the total costs include: (1) port costs (anchorage and mooring; port, transit area, Customs and shipping), (2) all road transport costs, and (3) land terminal costs (border and finalization of Customs clearance procedures).

Transport prices vary to some degree depending on the type of goods transported. As shown by data collected in October 2016 for the Senegal Logistics White Paper on the Dakar-Bamako corridor, the price for bulk transport of coal is about US$50 per ton, with a margin for the carrier of between US$340 and US$510 per trip if the transport service is directly provided and US$170 per trip if it is sub-contracted. For bulk transport of cement, the road transport price is about US$2,050 for a 40-ton truck. The price for rice transport is about US$115 per ton. Analysis of rice imports through the corridor shows that the share of transport represents between 15 and 17 percent of the selling price in Bamako, and that importers can save money if they transport bulk rice (bags) rather than use containers—bulk transport allows a larger load (through the practice of significant truck overloading) and therefore significant economies of scale even if transport in containers ensures greater safety. The type of goods can also have a significant impact on port costs, for example, at the Port of Dakar, food products incur a lower fee (US$18.7/TEU) compared to other products (US$28.1/ TEU).[29]

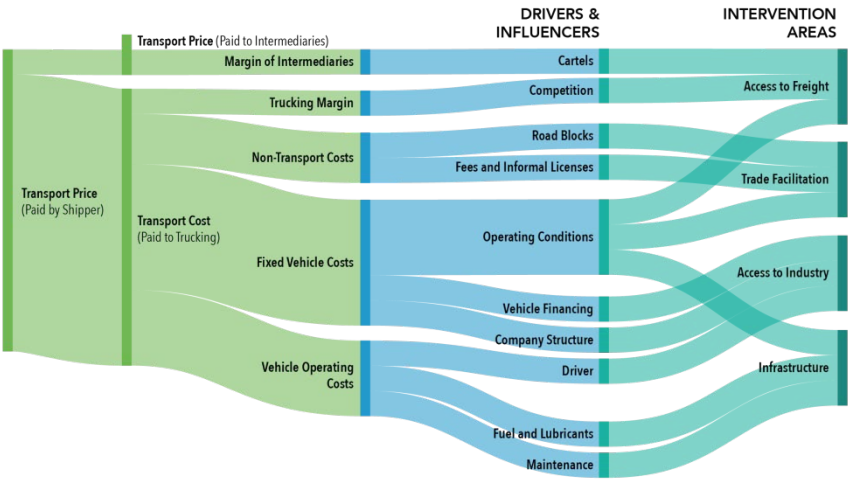
Conventional wisdom in trade and transport assumes that investing in infrastructure will foster trade through reduction of trade costs. Trade cost analyses commonly highlight transport costs as the main barrier to trade, and most programs addressing high transport prices are based on an implicit or explicit causal chain between infrastructure and trade. Specifically, they assume that reducing vehicle operating costs through better transport infrastructure will help reduce transport costs and then transport prices, which in turn will lower the price of imported goods, with positive effects on poverty (lower consumer prices) and productive activities (jobs, exports).

However, vehicle operating costs are only one part of the transport costs and prices equation. The research accumulated over the past decades on trade and transport costs in the region points to a combination of multiple cost drivers, as already suggested by some of the cost comparison figures presented above. The study by Terevaninthorn and Raballand (2009) was among the first to highlight the fact that market distortions play a greater role, at least for the situation prevailing in West & Central Africa, than infrastructure related challenges. This realization has opened the way for a renewed analysis in which the price can be broken down into components, each with its own drivers and influences. Figure 8 distin-

[29] Consia. (2015). *Étude de Performance de la Chaine Logistique des Transports de Marchandises sur les Corridors Dakar-Bamako et Abidjan-Bamako*. Report submitted to the Ministry of Equipment, Transport and Integration of Mali.

guishes between the price paid by the trader or shipper for trucking services and the payment actually received by the trucker. These in turn can be divided into costs and margins, with costs corresponding to (i) vehicle operating costs, usually distance-based, (ii) fixed costs, for overheads, and (iii) non-transport related costs.

Figure 8. Transport cost and price drivers and influences

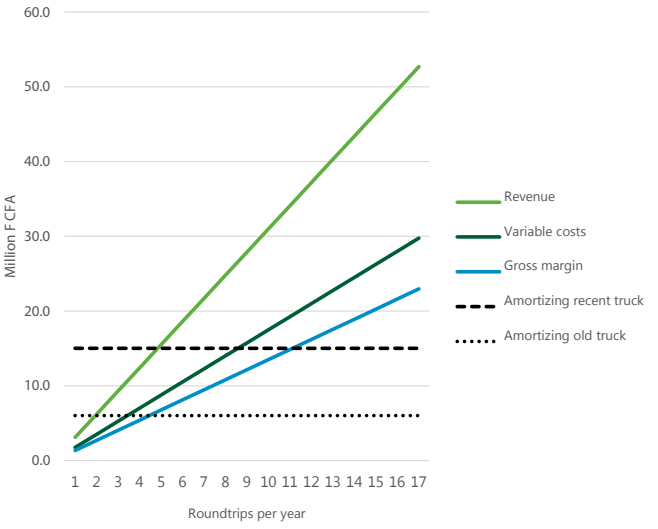


Infrastructure primarily affects vehicle operating costs and conditions, but to a highly variable degree. The two main avenues through which infrastructure (specifically, better quality roads) influences costs are: (i) higher commercial speeds, allowing for a higher turnover of trucks, and (ii) reductions in maintenance costs. However, this applies only when several other assumptions are true as well. For instance, the travel time along the corridors, particularly in West & Central Africa, represents only a portion of the total time spent on the corridor. Data collected in 2012 shows, for instance, that between Tema and Ouagadougou, trucks are taking, on average, ten days to complete a 1,000 km trip. Faster speed on the road would not affect that time by much, as part of it is spent on non-transport activities such as searching for opportunities to exchange Ghanaian currency (Cedi) for West African CFA Francs for the Burkina Faso part of the trip. Moreover, dilapidated trucks and overloading are far bigger constraints for commercial speed than the condition of the infrastructure. Similarly, fuel consumption and maintenance costs might be equally, if not more, affected by the age of the truck fleet than the quality of the roads. Nevertheless, there are still circumstances where improving

the infrastructure can reduce travel time significantly, particularly in areas where unpaved roads become impassable during the rainy season.

Trade facilitation is also a critical part of the equation; in addition to the market structure, a major factor that contributes to higher costs is the slow truck rotation on the corridor, that is, the small number of roundtrips by the average truck. This is the result of a combination of several factors, including delays at ports, difficulty of finding backhaul cargo, quotas and truck queuing regulations as well as cumbersome trade and transit procedures in both coastal and hinterland countries (Nathan Associates, 2012). While trucking companies in Southern Africa are able to utilize their vehicles at levels similar to the European transporters (10,000-12,000 km/ month), operators in West & Central Africa drive their trucks for as little as 2,000 km/ month (Macchi and Raballand, 2009). Improving the interfaces with the nodes of the network (at port and inland terminals), improving transit regimes to reduce border crossing time and controls along the corridors, and improving clearance to reduce the immobilization of the trucks at destination (goods are usually cleared on trucks, rarely in bonded warehouses) would all reduce the truck turnaround time.

Figure 9. Impact on roundtrips per year on financing of overheads



Reliable access to freight plays a significant role in the balance between fixed and variable costs, by increasing the utilization of the trucks. In turn, with an increased number of annual rotations, trucking companies can accommodate higher over-

heads – for better trucks, better personnel, better facilities – without increasing the burden on individual trips. Figure 9 is based on costs and prices on the Douala-N'Djamena corridor, but the principle applies throughout the region—a trucking company needs to make a certain number of annual roundtrips per truck to make a sufficient level of gross margin to finance its overheads. With very few trips a year, truckers barely have the resources to maintain their old trucks, let alone acquire a new one, which explains why they accept the low prices paid by intermediaries, because in that survival mode, a small margin on a trip is better than no margin at all.

Inadequate regulatory frameworks, shortcomings in their implementation, and established collusive business practices limit effective competition within the trucking industry. The sector is effectively divided between many small, informal and inefficient transporters and a few larger and relatively efficient companies. The small informal and inefficient transporters rely on intermediaries and market organizers to find freight and, while this opaque allocation creates sizeable rents, truckers typically only obtain barely break-even rates, and any reductions in transport costs fail to translate into reduced transport prices. Low profitability creates strong incentives for small truckers to resort to short-term survivalist behaviors, including through overloading of trucks beyond the legal axle load limit. Overloading adversely affects the durability and safety of operations, damages the road network, and discourages containerization. Moreover, the regional regulatory and policy environment does not provide much incentive to offer effective and competitive transport services.

In addition to a comprehensive and functioning regulatory frameworks, liberalization and professionalization of the trucking market are needed to lower the costs to both import and export. In individual countries, the estimated costs of non-competition represent over one-third of the total transport costs. Analysis carried out in preparation for the first regional DPO in Burkina Faso and Côte d'Ivoire, approved in 2016, estimated the cost of non-competition on the Abidjan-Ouagadougou Corridor at 35.7 percent of total transport costs. For transit traffic, it represents around US$746 for a trip between Abidjan and Ouagadougou, or some US$0.63per km.[30] The inefficient trucking market structure, which has impacts on transport pricing, access to freight, lack of incentives for more formal

[30] World Bank. (2016a). *Project Appraisal Document for a Transport Sector Modernization and Corridor Trade Facilitation Project in Côte d'Ivoire.*

sector trucking, and obstacles to fleet modernization, is a key policy issue that needs to be addressed to improve corridor efficiency.[31] The low profitability of the transport service sector – resulting from the lack of clear criteria for access to the trucking profession and of transparent mechanisms for freight allocation – creates strong incentives for truckers to resort to short-term profit maximizing behaviors, such as overloading and use of old trucks. Partly as a result of these behaviors, the containerization rate on West African corridors reach only 20 percent for transit goods moving inland, one of the lowest rates in the world.

Lastly, efforts to increase the volume of intra-regional trade in West & Central Africa are hampered by the continued prevalence of the various roadblocks and inflated payments requirements on the main corridors. These include both official (authorized tolling by Customs agents) and unofficial (tolling by unauthorized individuals, unauthorized tolling by authorized individuals, etc.) control posts, though the dynamics underlying those practices vary greatly. For landlocked countries in West Africa (Mali, Burkina Faso and Niger), the additional costs due to illegal roadblocks are estimated to be between US$13.6 million and US$25.5 million per year, and the total time losses range between 1,104 and 2,103 months.[32] On the Dakar-Bamako corridor, from unloading the vessel at the Port of Dakar until the completion of the Customs clearance procedures upon arrival in Bamako, the official yet unjustified charges such as the "Customs escort" added to informal costs amount to 13 percent of total costs for transporting a 20-foot container and to 16 percent in the case of a 30-ton bulk delivery.[33] For transit at the Port of Dakar, which handled 1.9 million tons of goods in 2013, the Customs escort fees in 2013 amounted to a total of US$13.2 million, or four times more than the *illicit* payments on the Dakar-Bamako corridor, which amounted to US$3.3 million for the same year.[34]

For the region overall, estimates show that the reform and modernization of the road transport industry would result in net economic benefits in the order of

[31] Nathan Associates (2013). Op. cit.

[32] AfDB. (2015). *Problématique de la facilitation du transport en Afrique de l'Ouest et Plan d'actions*. African Development Bank Group.

[33] Booz Allen Hamilton (2010). *Dakar-Bamako Corridor Cost of Transport Analysis*. Prepared for USAID.

[34] AfDB. (2015). Op. Cit.

US$400–500 million per year and could reduce transport prices by 19 percent, allowing an increase in transit trade by about 8 percent (Nathan Associates, 2012). The regional trucking industry would gain about US$60 million in net revenue, while shippers, producers and consumers in landlocked countries could gain US$200 million in net economic benefits. While up to 16,000 jobs could be lost in the informal trucking sector, this would be largely compensated by the 150,000 to 650,000 trade-related jobs that would be created. Since transport inefficiencies are more important for imports, they would initially benefit the most. Overall, trade creation effects are expected to be much larger than trade substitution effects. The forecasted increases in trade to landlocked countries amount to US$1 billion. Moreover, transport price margins over costs for the highest cost country would drop to 15-20 percent after reforms due to increased competition, and 70 percent of transport price changes to shippers would be passed on to consumers or producers. A study shows that liberalization of the regional trucking market, allowing for competition based on price and quality, would deliver savings per ton of US$40.9 for imports and US$18.9 for exports.[35] Eliminate corruption and road checkpoints; on the other hand, would allow saving of US$23.3 per ton in the case of imports and of US$6.7 in the case of exports. Specifically for the Abidjan-Ouagadougou Corridor, the introduction of transparent trip allocation and better regulated market (eliminating informal middlemen that currently take a cut of the overall price) would imply a total reduction of US$0.13 per km of the transport costs on the Ivorian section of the corridor. The cost savings are estimated at about 20 percent, which, when combined with increased demand and truck utilization rates, should lead to significantly increased profits and incomes for truckers and their families. In Côte d'Ivoire, reduction in transport and logistics costs due to better regulated market and professionalization would deliver annual benefits of about US$23.4 million in 2021-2040, reduction in vehicle operation costs due to fleet renewal – about US$7.7 million per year over the same timeframe, while reduction in transit time due to removal of road blocks and improved clearance procedures – about US$3.7 million per year (World Bank, 2016a).

[35] West Africa Trade Hub. (2012). *Transport and Logistics Costs on the Lomé-Ouagadougou Corridor*. Prepared for USAID.

Impact of low transport reliability on total logistics costs

In inefficient transport systems, such as the system in place in West & Central Africa, long durations of transport operations are not the only challenge; their high degree of uncertainty adds its own set of issues. In other words, uncertainties in the transportation time add an additional excess level of inventory costs. As an illustration, when a trader does not know if the ordered products will arrive in six weeks or six months, it is imperative to plan for overstock to avoid empty shelves, or interrupt production when the products are an input into a production process. This constitutes an additional hedging cost caused by the need to prevent possible disruptions due to erratic transport durations. A new measure of the impact of transport on shippers that takes into consideration all three categories of costs can thus be defined as the 'total logistics cost' (TLC). The measure of the total logistics cost is linked to a specific supply chain, since the characteristics of the goods and of the shipment influence the transport characteristics, and their value determines the level of the inventory and hedging costs. Measuring logistics costs on transport corridors allows determining: (i) the weight of transport costs in the logistics chain, (ii) the "avoidable costs" among total transport costs, and (iii) the bottlenecks to be addressed to improve the logistics performance.

TLC = Logistics services costs + Inventory costs + Hedging uncertainties costs

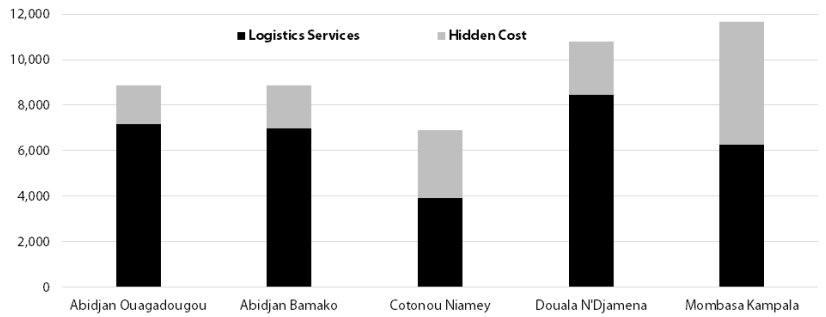
The TLC to the shipper represents two different types of costs: one of a financial nature, which corresponds to the expenses paid to the logistic operators to deliver the goods to the shipper's premises, and one which is not a direct monetary expense but is the hidden cost of delays and uncertainties in the supply chain, that ultimately have to be factored in the activity of the shipper. As these uncertainties do not immediately translate into direct expenses, they are frequently overlooked, but estimates for selected supply chains in Africa have shown that the magnitude of their economic impact is comparable to the price paid for the logistics services. Inventory costs correspond to the financial cost of the goods during their transport. Hedging uncertainties represent a more complex issue, with two possible strategies: (i) prudent shippers re-order early to compensate for potential additional delays in delivery time, which implies additional financial resources tied up in oversized inventory, and its logistics consequences in terms of oversized storage requirements, or (ii) shippers can decide to face the risk of disruption of stocks and lost business opportunities when delays surge. The estimate of the cost of hedging uncertainties is based on the first strategy, with an objective of reducing the risk of disruption to 5 percent. The theoretical foundation for the measure of

the hedging costs has been described by Arvis et al. (2010). The standard formulas that define inventory and hedging costs are as follows:

Inventory cost = Value of goods x Typical total delivery time x Daily interest rate

Hedging cost = Value of goods x (Top 5% time – Bottom 5% time) x Daily interest rate

Figure 10. Breakdown of total logistics costs on selected corridors



In Africa, the costs associated with uncertainties and delays across the transport and logistics chain represent a significant share of TLC. The TLC was calculated on several corridors in East, West & Central Africa. The methodology used for East Africa was further refined for the study conducted in West & Central Africa, so the values for the hidden costs are not completely comparable.[36] Nevertheless, Figure 10 demonstrates that the costs associated with uncertainties and delays exceed one-third on corridors such as Cotonou-Niamey. An earlier assessment done by Nathan Associates (2013) estimated the hidden costs at 19 percent of total logistics costs by road (or US$70.5/ton) on Abidjan-Ouagadougou, at 43 percent (US$124.2/t) on Cotonou-Niamey, and at 21 percent (US$96.6/t) on Douala-N'Djamena. As also confirmed by Consia (2015) focusing on the Dakar-Bamako and Abidjan-Bamako corridors, the higher the value of the goods transported, the higher the hidden costs in terms of cost of capital.

[36] West & Central Africa costs calculated by Nathan Associates and costs for East Africa by CPMS.

Inefficiencies and Non-Competitive Practices

Domestic, national-level practices

A coexistence of several business models

As noted before, the road transport industry in West & Central Africa is extremely diverse, ranging from modern operators with large truck fleets vertically integrated into logistics groups to individual and informal truckers who frequently do not even own their trucks (see Table 4). They operate according to very different business models, but the characteristic that differentiates them most is the ability to access freight, and most of their other characteristics derive from that ability. Each business model has a different structure of costs – from fixed costs and vehicle operating costs to non-trucking costs – which helps explain why trucking firms bill different prices for similar loads on similar roads. For example, the larger the scale of the transport activities, the larger the fixed costs related to facilities (office space, workshops, parking) and administrative and support staff. Moreover, those firms carrying out trucking activities for own-account versus commercial purposes tend to have different bases for making profits. While commercial transport is profitability-driven, in own-account activities transport is just an expense item in a larger trading / industrial activity, not necessarily considered as an independent profit center. The surveys conducted by the World Bank Group and others confirm that all operator types are present to varying degrees in all countries in the region.

The small-scale truckers that constitute the vast majority of the sector have poor access to information about the availability of freight. As a result, they depend on intermediaries and market organizers to locate it. Large trucking companies, often linked or even part of integrated logistics groups, control the allocation of freight between their own fleet and the fleets of sub-contractors. The mid-size operators have in general a few established customers, but are still largely dependent on spot (immediate delivery, one-off), as opposed to long-term contracts through intermediaries. At the other end of the spectrum, own-account operators by definition have access to their own reserved freight, which may or may not fully utilize their transport capacity. For this group of truckers, trucks are rarely seen as a separate business unit which needs to be profitable, as the main motivation for owning them is to ensure proper transport of their goods when and where they are needed.

Table 4. Characteristics of trucking operators, by type of operator

	Small-scale truckers	Mid-size operators	Large trucking companies	Own account operators
Truck fleet size	1, possibly up to 3, usually very old trucks	5 to 20 trucks, aging fleet	Over 30 trucks, with mix of old and mid-aged trucks	Variable
Office facilities, staff	No offices, no support staff	Minimal office facilities, limited admin staff	Office with additional facilities (parking space, workshop, etc.), admin and commercial staff, mechanics	Primarily linked to the main activity (trader or industry)
Access to freight	Through intermediaries (coxeurs) or informal networks	A few reliable customers, intermediaries (coxeurs), C&F agents on spot contracts	Through established customers and C&F agents on long term commitments	Dedicated to transport of own goods
Cost structure	Mostly operating costs	Minimal overheads	Higher proportion of overheads	Irrelevant, trucking is ancillary activity to the main one
Taxation & informal payments	No VAT, specific tax regime, strong exposure to informal payments	Subject to VAT and income tax, but also sometimes specific tax regimes, exposure to informal payments	VAT, income tax, not immune to rent extraction, but in general, 'bulk' payments	Variable

The asymmetry in access to information and freight is one of the key reasons why an industry that should be regulated through classical competition is in fact highly cartelized, not by truckers, but by the various intermediaries intervening between shippers and truckers. This opaque match between transport demand and supply creates sizeable rents, pushing the truckers, themselves a largely fragmented group, into a survival mode in which they accept rates that barely enable them to break-even, covering only transport costs but not full recovery costs (World Bank, 2016b). Especially the small, informal sector owner-operators fail to fully account for the depreciation cost of their vehicles, and rely more on out-of-pocket expenditures to calculate if they are making a profit or not. In other words, their planning horizon is relatively short (Nathan Associates, 2012). For example, on the Dakar-Bamako corridor, the bulk of the sector operates in the logic of survival, with some

carriers setting their tariffs considering only direct operating costs.[37] On all West & Central African corridors, informal sector transporters often pay more bribes than do formal sector ones, which can be directly attributed to their less reliable access to freight and lower negotiating power.

Divergence between transport costs and prices

The differences among truckers in their ability to secure freight provide an opportunity for intermediaries to extract inflated fees that are not necessarily related to the costs of intermediation, thus introducing a wedge between transport costs and the prices paid by shippers. Several studies have highlighted the large disconnect between transport prices and vehicle operating costs in the region, which seems to be linked to market organization (Nathan Associates, 2013). Even after adjusting for trade imbalance, there appears to be a major potential for reductions in prices if the road industry environment is changed to be like that in Southern Africa (Nathan Associates, 2012).

Role of cartels, truckers' unions. Arguably, cartels are formed more easily in Africa than in Asia or Europe, mostly due to the relative thinness of the markets (Macchi and Raballand, 2009). However, this market thinness does not necessarily *induce* the existence of cartels, as is demonstrated by the case of Rwanda. Cartels specifically in West & Central Africa have partly emerged as a result of the truck queuing schemes, discussed in later parts of the paper.

The atomization of the trucking industry in the region has led to its generally poor professional representation in the public dialogue. Little detailed information is available about membership, structure and modus operandi of the wide range of unions in Côte d'Ivoire, but it is believed that by 2010 there were 14 federations of transporters, regrouping approximately 250 (some say 350 by 2014) grassroots trucker/transporter organizations, of which about 65 percent of all truckers were members. This fragmentation has resulted in poor access by unions to key government departments. Recently, liberalization resulted in the creation of a new umbrella body, the High Transport Council. However, as a conduit for policy dialogue, the Council has still to demonstrate legitimacy and effectiveness. A contrasting example is that of Burkina Faso, where the main truckers' federation (*Organisation des transporteurs routiers du Faso*, OTRAF) and the National Freight

[37] World Bank. (2017c). *Livre Blanc sur le Transport et la Logistique au Sénégal: État des lieux et Recommandations.* Washington, D.C.

Council (*Conseil Burkinabé des Chargeurs*, CBC) are politically well connected, and membership in them provides access to rents (through control over access to car parks, distribution of freight, etc.).[38]

The traditional mission of the professional representation is to promote and defend the interests of the profession for the benefit of all its members. However, in West & Central Africa, they also try to intervene in market operations. For example, they impose freight allocation mechanisms in which freight is allocated preferentially to the members of the respective syndicate or trade union. Such involvement can distort the market and have a negative effect on the commercial activities that should be performed by operators on a level playing field.[39] At the same time, despite the formal mandate to defend the interests of carriers and drivers, regulate their activities, and provide information on the fluctuation of prices, freight carrier unions in West & Central Africa are not always perceived as fulfilling it. Most drivers and carriers recently surveyed in Niger believe that the unions do not actually perform any of these tasks and are only concerned with the payment of membership dues.[40] In Mali, the Council of Road Transporters (*Conseil Malien des Transporteurs Routiers,* CMTR) is far from playing the role for which it was created, namely bringing together carriers and interfacing with the government. The issuance of the consignment note (*lettre de voiture*) was granted to the CMTR. However, the council fails to manage this important tool for tracking domestic and international traffic due to a lack of qualified human resources. Thus, domestic traffic is not effectively monitored, intra-regional freight volumes are not known, and it is practically impossible to forecast inter-regional trade. International traffic is better monitored through *Entrepôts Maliens* in transit ports and at their land border offices.[41]

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[38] ENSEA/World Bank. (2014). *Industrie du Transport Routier de Marchandises en Côte d'Ivoire et au Burkina Faso.*

[39]. World Bank / IRU. (2016). *Road Freight Transport Services Reform: Guiding Principles for Practitioners and Policy Makers.* World Bank and International Road Transport Union, Washington, D.C.

[40] OCAL / World Bank. (2014). *Industrie du Transport au Niger et au Benin*. Secrétariat Exécutif de l'Organisation du Corridor Abidjan-Lagos.

[41] Sahel Consulting. (2014). *Étude d'actualisation de la réglementation régissant la profession de transporteur routier et les conditions d'accès : Rapport final.*

A World Bank study[42] suggested that, in West & Central Africa, large markups by providers in transport cartels are the main determinant of high transport prices—that rent-seeking road transport cartels create a large gap between costs and prices, benefitting from oligopolies. Their conclusion was drawn based on data gathered in 2007, which showed that, while West & Central African trucking costs do not greatly exceed global norms, the end users of trucking services pay prices exceeding those costs by an 80 percent margin. The authors argued that, unless governments take steps to remove the structural distortions of the trucking market, there is no point in investing to reduce road-transport costs since the cartels will capture the benefits from lowered costs. Similarly, the authors suggested that truckers keep production costs low through the combination of low capital costs (purchase of second-hand trucks) and minimal maintenance expenditures while maximizing revenues through high truck (over) loads. Old trucks then become the economic optimal when mileage is limited to 30-40,000 km/year and margins derive from cartel prices. They posited that the strategy of some large trucking companies, especially in a cartelized environment, is to subcontract freight to truckers at a lower price. Consequently, some charge a low price and can hardly be profitable, whereas some other trucking companies benefit from the cartel price and consequently reap large profits.

However, although on some corridors, particularly those leading to Niger, trucking market structures are indeed oligopolistic, in other cases, such as for corridors emanating from Abidjan, these problems have a more limited impact. For instance, three quarters of the respondents interviewed by Zerelli and Cook (2010) claimed that the laws of supply and demand determined trucking prices. Both in Abidjan and Lomé, the setting of trucking rates involves generating reference rates that become price norms and subsequent discussion or haggling to determine the price for hauling individual loads. In Lomé, reference trucking rates are generated through collective bargaining between truckers' and importers' associations on a given corridor, whereas in Abidjan, reference prices are generated by government studies. According to Zerelli and Cook, the average profit margins reaped by truckers are much lower than those suggested by Terevaninthorn and Raballand, at between 15 and 20 percent per trip, which is reasonable for such relatively risky activity. As the main factors affecting profitability their interviews recorded the following points: axle-weight controls, the continuing poor overall quality of the trucking fleet, commissions, informal payments and bribes as well as seasonality.

[42] Teravaninthorn, S and G. Raballand. (2009). *Transport Prices and Costs in Africa: A review of the International Corridors*. World Bank, Washington, D.C.

On Abidjan-Ouagadougou, Douala-Ndjamena, and Abidjan-Lagos corridors, interview-based evidence also suggests that transport prices are no longer set by trucker associations, but by direct negotiation between shippers or their representatives and truckers, with the prices set by the truckers' unions serving only as reference (Nathan Associates, 2013). Trucker associations generally have no influence on trucking prices in Côte d'Ivoire or Burkina Faso; instead, prices are often the result of negotiation with the customer. In addition, in Burkina Faso, but not in Côte d'Ivoire, the use of standard prices published by the carriers themselves is also a common method for price determination. This means that, unlike their counterparts in Burkina Faso, Ivorian carriers have very little direct influence on the pricing of transport services. This is all the more so, since there is a much stronger presence of informal and artisan companies in the Ivorian road transport sector compared to Burkina Faso (ENSEA, 2014).

The evidence is somewhat inconclusive regarding the existence and influence of cartels on the Douala-N'Djamena corridor. Terevaninthorn and Raballand concluded that a large profit margin exists in the market on this Central African corridor, indicating a cartel. They argued that heavy formal and informal regulatory constraints on the corridor are the root cause limiting the entry of newcomers despite low operating costs. Research carried out by the World Bank Group and the Sub-Regional Institute of Statistics and Applied Economy (*Institut Sous-Régional de Statistique et d'Economie Appliquée*, ISSEA) in 2013-2015 found that, despite significant investments in the improvement of infrastructure that should have reduced the vehicle operating costs, and despite the trade facilitation measures that resulted in decreased delays, transport prices on the corridor do not seem to have decreased over the past decade. Moreover, the increase in the size of the truck fleet operating in Cameroon, likely responding to the import boost since 2009 from Chad triggered by the Chadian oil boom, should have increased competition in the market and lowered prices. However, according to the Doing Business Index, the transport prices billed to chargers nearly doubled between 2008 and 2015. Yet, and at the same time, trucking firms have been complaining about receiving low transport prices, and today the main advocacy from the Cameroonian trucker union (*Syndicat national des transporteurs routiers du Cameroun*, SNTRC) concerns trucking prices. The SNTRC argues that the price set in 2005, at FCFA 136 per ton-km (US$ 11.5k for a 28 tons), is not enough to gain a margin given the time on the road, truck utilization, and the empty return trip, and has advocat-

ed for revalorization to FCFA 149 per ton-km.[43] The diversity of prices billed by trucking firms on comparable loads and routes and the decline in prices over the past decade charged by trucking firms generally indicate at least some level of competition among trucking firms.

In fact, based on the World Bank Markets and Competition Policy Assessment Tool on identifying cartels[44], it is the freight-forwarding market in Cameroon that exhibits indications of cartelization. For instance, while several forwarding agents operate in the trade sector of Cameroon, very few do so specifically in the transit sub-sector. In other words, the firm concentration is high, as the four main companies represent 80 percent of the total transit volumes. In addition, vertical integration can be observed among the forwarding agents, particularly in the case of the main international groups. This at least partly explains why the transport prices billed to chargers are higher than those paid to truckers.

Role of middlemen. The definition of clear contractual relations between shippers and transporters is an important element of well-functioning transport markets but is still lacking in West & Central Africa. Regional regulations define the legal framework for consignment notes in West Africa.[45] Moreover, an agreement was reached in 1997 among several West African countries to establish an interstate consignment note managed by national shippers' councils. However, the relations between shippers and carriers continue to be characterized by a lack of liability, as formal transport contracts or consignment notes are not used (World Bank, 2016b).[46]

In the absence of formal freight allocation exchanges and effective freight-availability related information, a myriad of informal middlemen, or *coxeurs*, pres-

[43] *Évaluation du Coût du Service de Transport de Marchandises en Transit au Cameroun* (2012), provided by the BGFT Coordinator (*bureau de gestion du fret terrestre*) and deputy president of the SNTRC.

[44] See the description of the tool at www.worldbank.org/en/topic/competition-policy.

[45] Provisions related to consignment notes are included notably in the Organization for the Harmonization of Business Law in Africa Single Act on transport contracts, the ECOWAS ISRT Convention and WAEMU Regulation 14.

[46] In Burkina Faso, the shippers' council has introduced a document, the Road Transport Monitoring Note, which is largely used in electronic form but more for statistical purposes than as a transport contract.

ently help match transport supply with demand. Among other causes, the rise of coxeurs in West & Central Africa has been attributed to the destabilization of the regulated transit market that resulted from the crisis in Côte d'Ivoire in 2002. The smaller, mainly informal truckers have since come under pressure and are increasingly relying for business on coxeurs, paying them a commission ranging from US$85 to US$170 per truck (Nathan Associates, 2013). In Côte d'Ivoire, the amount paid to intermediaries varies from US$85 to US$100 per load or about US$400 per trucking company per month. In Burkina Faso, the average amount paid to coxeurs is lower – about US$40 per load, or US$140 per month (ENSEA, 2014). As many as 62-64 percent of transport companies in both countries obtain freight via intermediaries such as coxeurs; however, while in Côte d'Ivoire, the coxeurs services are mostly sought by smaller companies, in Burkina Faso there is no clear differentiation (artisan, very small or informal and formal). In a recent study on trucking sector practices in Niger, OCAL (2014) suggests that access to freight is usually managed by coxeurs, who charge a variable fee depending on the nature of the relationship with the client and the weight and quality of goods transported.

Reform of the informal freight forwarding practices is one of the key interventions that could lead to lower transport costs and prices. While coxeurs do provide value added largely because of an environment of asymmetric and imperfect information, they also impose considerable costs and distortions on the industry. They have become adept at creating a role for themselves and receiving remuneration for the provision of oftentimes redundant services. They often have a significant financial base and in some cases close links to politicians, and therefore have the ability to mobilize support and to resist reforms, and in the past have organized boycotts and direct action. An important issue related to coxeurs is that the contract between them and their customers is by tacit agreement, so it is difficult to keep them legally accountable and for the state to control the flow of money circulating to and from this category of stakeholders. Rent-seeking, high markups and lack of accountability on behalf of coxeurs could be eliminated with the introduction of direct, formal contracting.

Access to the trucking profession

The low degree of professionalization in the trucking sector is a key failure of the road transport policy in West & Central Africa. All sector studies point to the fact that conditions for joining and exercising the profession are somewhat too liberal. There are no real barriers to entry: for instance, no specific management and

transport related skills are required to run a trucking company, no specific training is required for the drivers, and no technical criteria for trucks, allowing dilapidated but inexpensive vehicles to operate in the market. The lack of formal entry barriers distorts the rules of competition, depresses prices, and harms the reputation of the profession—often seen as a fallback option for those who have not succeeded in other activities and as a "risky" business by insurers and banks. This makes it difficult for operators to access financing (World Bank, 2016b).

Regulations governing access to the transporter profession exist to some extent but fail to be applied. Moreover, the existing legislation is incomplete and does not clearly define the scope and categories of transport concerned. For example, in Mali, the existing laws and regulations[47] do not distinguish between transport for third parties (commercial transport) and own-account transport. In a strictly legal sense, the profession of a road transport operator does not exist as such (Sahel Consulting, 2014).

Regarding the regulation of the exercise of road transport activities at the community level, CEMAC is well ahead of the rest of West & Central Africa, because it has adopted a Community framework for the exercise of inter-state transport, which is not the case for ECOWAS and WAEMU (Sahel Consulting, 2014).

Demand for professional, high-quality transport services in the region exists, but is mostly limited to large multinational companies and fuel traders. For example, in Burkina Faso, SONABHY (the National Hydrocarbons Association) has made attempts to professionalize and strengthen access to the petrol/gas transit segment of the trucking market, but the criteria for petrol tankers and access to the profession are still not evenly applied across the board. Recent efforts to strengthen the criteria and norms for the recruitment of truckers were reportedly resisted by a strong trucker association with effective ties to the Government. In the end, the Government asked SONABHY to reconsider the proposed criteria and to renegotiate with the syndicates. Nevertheless, given passed legislation and regulations[48] defining the categories of road transport and the conditions for the exercise of the profession of an operator, Burkina Faso in this regard is currently the most advanced country in the region (Sahel Consulting, 2014).

[47] Law n° 0043 of June 7, 2000 and Decree n ° 00-503 / P-RM of October 16, 2000.

[48] Decree n°2014-0000/PRES/PM/MIDT/MEF/MATS/MICA and law n° 025-2008/AN of May 6, 2008.

Lack of professional legal and regulatory standards or lack of their application is one of the factors that contributed to the overcapacity of the truck fleet in some markets. This is so in Togo, where a clear definition of what is a trucking company or requisite knowledge of transport managers and drivers is lacking, and standards offered by training schools do not meet what would be required to reach professional levels.[49] There are currently no formalities to becoming a trucker, and the cost of entry in the sector is limited to the cost of a second-hand old truck (typically below US$17,000). This has resulted in overcapacity in the sector and low profitability among operators. However, in addition to the lack of a legal and regulatory framework, the institutional arrangements (e.g. driving schools) for building the capacity of the trucking sector operators are inadequate. This lack of capacity has several implications, including for road safety and the environment, as undertrained operators drive less safely and with less fuel-efficient vehicles.

Bilateral and regional practices

At the regional level, the WAEMU and ECOWAS treaties, at least in theory, regulate the organization of road transport and, in turn, influence access to freight. The policy defined within the framework of the regional communities is mainly valid for transit traffic and inter-state transport (ENSEA, 2014). In the 1980s, ECOWAS adopted two Conventions aimed at eliminating non-tariff barriers on inter-state highways and harmonizing and simplifying procedures related to transport and transit operations.

- The Inter-State Road Transport Convention (*Transport Routier Inter-États*, TIE, A/P2/5/82) governs access to the inter-state road network for transport operators. It regulates road transport between states, deals with the technical standards for participating in inter-state road transport of goods, specifies the routes to be used, and aims to eliminate excessive road checks. The Convention also provides for the setting of rules on the distribution of freight between transit States and landlocked countries as well as on axle load limits.
- The Inter-State Road Freight Convention (*Transit Routier Inter États des Marchandises*, TRIE, A/P4/5/82) aims to avoid successive Customs procedures in the transit countries and facilitate the movement of vehicles and goods transported between member states, by abolishing the various national regu-

[49] World Bank. (2017b). *Project Appraisal Document for Togo Trade and Logistics Services Competitiveness Project.*

lations and the physical verification of goods, and provides, inter alia, for the sealing of vehicles. In effect, TRIE is a *Customs procedure* which permits the carriage of goods between member states under the cover of a single Customs document (the State Road Transit Declaration or *le carnet TRIE*) and without additional burdens and the need for unloading. This Convention also establishes a regional guarantee fund, the resources of which would come from the collection of an amount equal to 0.50 percent of the CAF value of imported goods, and a deposit system to cover possible Customs fraud.

In practice, the effective application of the TRIE convention has faced several obstacles: (i) the inability to collect and manage funds for Inter-State Road Transport Guarantee Funds,[50] (ii) lack of harmonization of vehicle licensing arrangements for inter-State transport, (iii) segregation of Customs information concerning road transit operations, and (iv) the organization of freight transport. Operators are faced with a set of factors preventing them from using the Customs procedure for facilitating transit transport because of the age and type of the vehicle fleet in the sub-region and due to the lack of knowledge about the procedure. About 70 percent of the vehicles available for transit transport operations in West & Central Africa are ordinary open-dump trucks that do not comply with the technical requirements set out in the Annex to the Convention (not designed so that it is impossible to access the interior once the vehicles have been sealed by Customs).[51] Since the entry into force of the TRIE Convention, several commitments have been made for its application, but each time problems have arisen necessitating further studies or consultations.

To relaunch their implementation, ECOWAS and WAEMU adopted in the early 2000s Community texts on the implementation of the Regional Program for Facilitation of Transport and Road Transport (*Programme Régional de Facilitation du Transport et du Transit Routier*) and the Community Development Program for Road Transport Infrastructure (*Programme d'Actions Communautaire des Infra-*

[50] The resources are collected by Customs and transferred to the Treasury in accounts called "Fonds Trie". Yet, although these resources should feed a "guarantee fund," they are often distributed among the various institutions involved in transport (chamber of commerce, transport ministries, council of shippers, ministry of finance…) (AfDB, 2015).

[51] GIZ. (2016b). *Etude Baseline sur la mise en œuvre du TRIE bilatéral entre le Sénégal et le Mali: Rapport d'étude*.

structures et du Transport Routier).[52] Developed on the basis of the recommendations of the New Partnership for Africa's Development-NEPAD Short-Term Action Plan, these two programs include an "investments" component to improve the inter-state routes and a transport facilitation component that aims to remove obstacles to the smooth flow of traffic on the corridors (AfDB, 2015). These texts give priority to the Dakar-Lagos (RTA7) and Dakar-N'Djamena (RTA5) axes and specifically provide for (i) improving the level of service of road infrastructures, (ii) the construction of border checkpoints, (iii) limiting controls on the corridors to three points (departure, border and arrival), (iv) the setting up of observatories of practices along the corridors, (v) the simplification and harmonization of procedures and regulations and the implementation of the TRIE and TIE conventions, and for (vi) the establishment of a regional transport facilitation committee as well as a management committee for each corridor.[53] Other trade facilitation measures adopted for the movement of goods among ECOWAS member states include the statutes and regulations relating to the technical specifications of vehicles, infrastructure, road safety and standards of conduct as well as Customs and border formalities such as Customs visits, border closures and insurance provisions—namely, the adoption and implementation of an ECOWAS vehicle insurance card known as the "brown card" (GIZ, 2016b).

In addition to these regional conventions, several bilateral agreements have been signed by ECOWAS member states, defining and regulating road traffic standards, vehicle technical characteristics, transit routes, cabotage by road, and freight allocation quotas. In 2010 about 70 percent of the transit procedures in the ECOWAS region were still determined by bilateral accords and national regulations and practices (Booz Allen Hamilton, 2010). For instance, in the case of the Dakar-Bamako corridor, freight transport is governed by the Memorandum of Understanding between Senegal and Mali (*Protocole d'Accord relatif aux transports routiers entre le Sénégal et le Mali),* which sets out rules governing road transport between the two countries, including total vehicle weight and dimension limits, inter-state insurance (Brown Card) requirements, road controls, freight sharing arrangements, technical visit requirements; and documentation requirements (Booz Allen Hamilton, 2010).

[52] Decision A / DEC.13 / 01/03 of 31/01/2003, Directive No. 8/2005 / CM / WAEMU and Decision N ° 15/2005 / CM / UEMOA of 16/12/2005

[53] Decision A / DEC.9 / 01/05 signed in Accra on 19/01 / 2005

Freight allocation – trucking quotas, 'tour de rôle'

Some of the main regulatory issues related to the bilateral treaties concern operational rules and market access restrictions, specifically: (i) transit bilateral treaties that establish quotas for the fleets of the coastal and inland countries, and (ii) the practice of truck queuing (*tour de rôle*[54]) through which freight is allocated to transporters, requiring the operator to be affiliated with a transporter association. The 1/3-2/3 freight-sharing rule and the queuing system are both non-market mechanisms. Whereas shippers' councils at the ports implement the first, transporters' associations implement the second (Zerelli and Cook, 2010).

The rules for freight distribution are an example of the interactions between formal and informal institutions. For the Abidjan-Ouagadougou Corridor there is a bilateral agreement stipulating that two-thirds of goods destined for Burkina Faso are reserved for Burkinabe truckers and one third for Ivorian truckers. While the rules governing this quota system have been formalized in a bilateral agreement, the implementation mechanism through the truck queuing have not. Here, the Burkinabe Government has informally entrusted the actual allocation of freight to the largest Burkinabe trucker association (OTRAF), which has offices in major ports and serves trucks on a first-come first-served basis. Truck queuing is perceived negatively by most stakeholders in landlocked countries (Macchi and Raballand, 2009), and in many countries authorities have tried to tackle this scheme and to declare it illegal. However, these attempts have never been successful, mainly because the legal basis for restrictive practices remains through the quotas.

The effective application of the two freight allocation systems is quite uneven. However, these schemes 'justify' opaque practices in the decision about which trucking company or operator provides transport services, while also 'justifying' the roles of institutions which are not formally part of the transport contract. These schemes lead to poor service and low productivity with little incentive for truckers to improve road transport efficiency (Terevaninthorn and Raballand, 2009). The main issue with both systems is that they introduce filters between transport demand and supply, result in sub-optimal allocation of capacity to demand, and are used for rent extraction. They have been identified as key causes of the oversupply of transport services and the subsequent low level of truck utilization (Macchi and Raballand, 2009). Elimination of the quota and the queuing systems would potentially make the arrangements a lot more transparent.

[54] Contrary to bilateral quotas, "*tour de rôle*" has no legal basis whatsoever.

FREIGHT SHARING RULES. The ECOWAS Inter-State Road Transport Convention allows pairs of member states to conclude bilateral treaties that give specific percentages of the freight passing through a coastal country's port to a landlocked country to the truckers of each of the two countries.[55] Typically, 'strategic' goods are 100 percent allocated to the landlocked country,[56] while non-strategic goods are allocated 2/3 to the landlocked country and 1/3 to the coastal country. Several such bilateral treaties exist, and shippers' councils from landlocked countries oversee their application. The rationale for such a mechanism was that, in the absence of protection, trucking companies from landlocked countries would be at disadvantage. The freight sharing treaties effectively attempt to avoid perceived threats to national trucking industries by explicitly allocating freight shares for international trucking. In doing so, they undermine free markets and economic efficiency, since they effectively limit the competition that provokes cost reduction through innovation and greater technical efficiency (Zerelli and Cook, 2010). Moreover, the existing freight sharing rules create de facto cartels and slow down market and regional integration. In practice, they put in the hand of an institution and its staff the power to allocate freight on quasi discretionary basis, and therefore represent an opportunity to extract rents. For this reason, the bilateral quota system is also prone to bribery as those in charge of enforcing quotas may resort to "selling" freight market shares to truckers or trucking companies ready to pay the highest price (Macchi and Raballand, 2009).

Furthermore, the operators that are protected often do not meet regulatory requirements, such as having enough transport supply capacity. For instance, the (landlocked) Nigerien fleet is not capable of handling freight peaks and is generally unable to take its full quota. When there are too few Nigerien trucks to take up the option on their 2/3 share of freight, the Nigerien Council of Public Transport Users (*Conseil Nigérien des Utilisateurs de Transports*, CNUT) sells the options to trucks registered in other countries (Zerelli and Cook, 2010). Adoléhoumé (2007) estimated the market share of the Nigerien fleet on the Togolese corridor at 36 percent for the first six months of 2007 whereas according to the quotas it should

[55] UNCTAD. (2007). *Transport Infrastructure for Transit Trade of the Landlocked Countries in West and Central Africa: an Overview*. Contribution by the UNCTAD secretariat to the Mid-term Review of the Almaty Programme of Action, UNCTAD/LDC/2007/1.

[56] Some countries define goods that appear to bear little relation to national security as "strategic" (e.g. building materials), suggesting that interest groups have broadened this category to provide economic protection to the trucking sector within their country.

have been twice that.[57] This could at least partly be explained by the fact that the operating costs of the Nigerien fleet per vehicle-kilometer are some 30 percent higher compared to those of the Togolese fleet.

While it is difficult to conclude whether freight sharing rules are a key cause of high transport prices in the region, they may cause transport supply bottlenecks and increase transport costs if the supply, capacity and quality of vehicles are not the same in the landlocked country as in its transit partner. In fact, the quota system may be economically disadvantageous to landlocked countries themselves if the effects of the increase in transport costs outweigh the benefits generated in the transport sector (UNCTAD, 2007). By forcing shippers to use local fleet, they have to pay a surcharge (due to higher prices, lower quality or increased bribes if they want to use their transporters), which is detrimental, rather than beneficial, to the interests of the landlocked economy.[58] The Senegal Logistics White Paper concluded that the Memorandum of Understanding between Senegal and Mali, which formalizes the application of freight allocation quotas from the Port of Dakar (2/3 for Malian carriers, 1/3 for Senegalese carriers, hydrocarbons for Malian carriers), combined with the application of the regional freight allocation quota (50/50 for Malian and Senegalese carriers), as well as the recent modernization of the Malian fleet, have resulted in almost 90 percent of road transport on the corridor being provided by Malian trucks. The paper argues that price competitiveness for long distance transport does not appear to exist on the Dakar-Bamako route, given that the freight allocation scheme creates a quasi-monopoly situation, in which a shipper does not really have the choice of a carrier, and the tariffs are de facto fixed by the transport unions (World Bank, 2017c). On the Central African corridors, such as Douala-N'Djamena, the freight-sharing mechanisms and the formal and informal rules between trucking firms from CEMAC countries were identified as having the largest impact on trucking industry competition and competitiveness according to Terevaninthorn and Raballand (2009). However, the surveys carried out by the World Bank Group and ISSEA in 2014 showed that, in practice, (coastal) Cameroonian truckers dominate on the corridor, due to the low availa-

[57] Adoléhoumé, A. (2007). *Analyse des Facteurs de Coûts et Prix de Transport en Afrique de l'Ouest: Cas du Niger*. World Bank, Washington, D.C.

[58] On the other hand, paying a foreign company represents a deficit in the balance of payments. To our knowledge, the overall macroeconomic effect of these practices has not yet been precisely measured.

bility and predictability of Chadian trucking services. The situation is thus comparable to the corridors terminating in Niger.

As shown by the Cameroon-Chad and Niger corridor examples above, the freight allocation quotas are in reality not necessarily enforced, or are enforced only partially. According to Nathan Associates (2012), *none* of the quotas are enforced on the Abidjan-Ouagadougou or on the Lomé-Bamako corridors. However, as much as 70 percent of freight sharing quotas are enforced on the Dakar-Bamako corridor and about 80 percent on Lomé-Niamey. Quotas are also implemented for large shipments of rice and containerized goods from Lomé to Burkina Faso. The quota for cargo in transit to an Abidjan-Lagos corridor country is 50/50 for destination/origin country of transporters. However, it is not being strictly applied (Nathan Associates, 2013). In fact, enforcement of any type of quota is really only possible for large shipments, i.e. several thousand tons of rice or fertilizers, for instance, but not at the container level. This explains the varying levels of adherence to the quota rules, depending on the type of cargo being transported.

Truck Queuing ('tour de rôle'). Direct contracting is almost nonexistent in Central Africa, while in West Africa it is limited to some institutional shippers, which bypass the queuing system. Such direct contracts are the only way to develop an efficient transport industry; therefore, direct contracting is a good proxy to assess the modernization, or the lack thereof, of the trucking industry (Macchi and Raballand, 2009).

The truck queueing system represents an opportunity for the trucking unions to have a role in the negotiation between transport demand and supply. Transporters associations implement it at the ports: they supervise truck loading according to a first-in-first-out (FIFO) rule, whereby each driver registers with his transport association on arrival, joins the back of the queue, and waits his turn (Nathan Associates, 2012). The rationale for the queuing system has been to ensure the survival of small trucking companies, but it has brought less competition, higher prices, and lower-quality services (World Bank, 2012b), since it further weakens the already low incentives to invest in modern trucks and logistics services.

The queuing system causes several market inefficiencies. First, it provides an incentive for older, poorly maintained trucks to remain in service since they only have to wait at the port like their competitors to get cargo. Second, the incentive for older, poorly maintained trucks to remain economically active results in an oversupply of vehicles in the market. Without this support, owners would scrap

them. Third, the oversupply and increased waiting times at ports extend the rotation times between the port and the inland destination (Zerelli and Cook, 2010). The additional downtime reduces the distance covered annually and, thus, trucking efficiency. Fourth, to counter the low distance covered annually, firms tend to overload their trucks. Fifth, the queuing process encourages bribery to skip the queue and hurts their profit margins. In a free market, one would expect freight forwarders to prefer to give more business to the more efficient trucks. Therefore, the queuing system, where it is implemented, reduces the overall efficiency of the national fleet—and, by extension, the regional fleet.

The actual enforcement of the queuing scheme is somewhat uncertain and more data is needed in this area (Nathan Associates, 2012). The available survey-based evidence indicates that, as with freight sharing rules, the queuing system is not applied systematically to truckers in all markets and for all products. In particular, although large formal trucking companies account for only about 10 percent of all truckers in West & Central Africa, by contracting directly with importers they are largely able to bypass quotas and queues. For example, in the case of the Abidjan-Ouagadougou corridor, truck queuing is being bypassed by professional transporters and by shippers and importers/exporters who require more quality and reliability. Zerelli and Cook (2010) report that in the Port of Abidjan, queuing is applied only to about 1/3 of all transit traffic. In Lomé, the rule applies to most large shipments, to containers and to some smaller shipments but other freight allocation is market mediated. Similarly, Nathan Associates (2012) found that truck queuing is enforced only about 30 percent of the time on Lomé-Bamako and Lomé-Ouagadougou corridors as well as on the Abidjan-Ouagadougou corridor, but as much as 70 percent of the time on the Dakar-Bamako corridor and about 80 percent on Lomé-Niamey. The respondents in Zerelli and Cook's study were more likely to say that the queuing system was working on the corridors terminating in Niamey than on those terminating in Bamako or Ouagadougou. In contrast, according to Nathan Associates' (2012) interviews with Nigerien shippers, since the promulgation of Order No. 09 \ MT \ DTT-MF of 13\02\2007, shippers are essentially free to choose their carriers, albeit within the limit of the 2/3-1/3 quota system supervised by the CNUT.

Restrictions to access to- and availability of- backhauls

Economic activity in West & Central Africa is highly concentrated: economic density exceeds US$1 billion per hundred km^2 in large urban centers along the coast, but decreases rapidly as one moves inland to below US$10 million in the Sahel

region.[59] The region has traditionally exported unprocessed agricultural products, as well as increasing volumes of petroleum and mining products, while importing manufactures produced in other continents (World Bank, 2017a). Still, in volume terms, imports to landlocked countries significantly surpass exports, creating a scarcity of backhaul loads that affects transport profitability, especially for truckers from coastal countries who may be prohibited from carrying return loads.

Because those landlocked countries import more than they export, many trucks return empty to the port, and the revenue from their inbound load must support the costs of the round trip. Average round-trip load factors vary between 0.75 for truckers who have access to return freight and 0.5 for those who do not. For example, among Cameroonian and Ivorian truckers the share of empty trips averages about 35 percent.[60] Only about one-fifth of truckers could find a backhaul if it were limited to full truck loads in West African landlocked countries, where the ratio of export tonnage to import tonnage varies from 14 percent in the case of Burkina Faso to 20 percent in the case of Mali to 30 percent in Niger (Nathan Associates, 2012). The imbalance is linked to the fact that many export goods are agricultural commodities (cotton, cocoa, etc.) which are by nature seasonal, and to the fact that some flows are by nature one-way, notably the imports of petroleum products. It inevitably leads to higher prices for the inbound load (Zerelli and Cook, 2010).

Compounding the additional costs implied by the trade imbalances, to protect the domestic trucking industry, regulations exist to limit which truckers the shippers can use. Based on Zerelli and Cook's (2010) interviews, for exports from landlocked countries to ports, transporters associations in each landlocked country enforce a ban on trucks registered in other countries picking up loads in that country. The landlocked country exporter can only choose from among trucks registered in that country. For instance, even if an Ivorian transporter can organize a backhaul load in landlocked Mali, the Malian authorities reportedly will not allow the Ivorian trucker to carry it. Furthermore, the freight quota system gives the Ivorian truckers and shippers in Abidjan little incentive to compete for Sahel-bound freight, thus reducing competition in that market. Similarly, within Niger,

[59] Ranganathan, R. and V. Foster. (2011). *ECOWAS's Infrastructure – A Regional Perspective*. Policy Research Working Paper No. 5899. World Bank, Washington, D.C.

[60] Londoño-Kent, P. (2009). *Freight Transport for Development Toolkit: Road Freight*. DfID / World Bank, Washington, D.C.

the transporters associations charge fees to non-Nigeriens who want to haul freight within or from Niger. This protectionist, non-market allocation of freight lowers the average efficiency of southbound (port-bound) road haulage along that corridor and dissuades trucks registered elsewhere from carrying loads to Niger. Alternatively, in some landlocked countries, the transporters association may allow trucks registered in another country to pick up a port-bound load for a fee, which increases the cost to the end user. This fee contributes to high average haulage rates that render uncompetitive (i) exports from the landlocked countries and (ii) production using imported inputs. Aspiring exporters to the global economy immediately face a huge competitive disadvantage due to the additional transport costs that the double oligopoly generates for them (Zerelli and Cook, 2010).

Implementation and enforcement of axle load regulations

Truck overloading has many negative externalities that are not borne fully or even partly by the trucking companies that overload: it accelerates pavement deterioration, usually because of unacceptable amounts of rutting or roughness, it increases failure rates for bridges, and causes more road accidents as overloaded vehicles lose control or tip over (Nathan Associates, 2012). To prevent overloading, WAEMU adopted Regulation No. 14/2005 / CM / UEMOA[61] to harmonize standards for weight and axle load of heavy vehicles transporting goods. However, its enforcement has proved problematic since, despite many high-level meetings committing to its full implementation.

Overloading is prevalent in the whole region, as it is seen by truckers as an easy way to increase revenue per trip, while the additional expenses linked to the excess load are either not increasingly proportionally (fuel consumption, for instance) or are not fully accounted for (faster wear and tear of the truck). It is one of the two main strategies that operators use to mitigate the costs associated with low truck utilization, the other strategy being the use of second-hand trucks (Machi and Raballand, 2009). Owner-driver operators are particularly prone to overload (Londoño-Kent, 2009). Zerelli and Cook, in their 2010 study of several West African corridors, argue that freight transport reference prices for many years had been too low for the informal sector truckers to cover the costs, and overloading was the only solution for most transporters to survive. Despite overloading, how-

[61] The efforts of the WAEMU community were mirrored by ECOWAS, which in 2012 adopted its set of regulations on vehicle standards and axle load limits, through the Supplementary Act SP.17/02/12.

ever, some informal sector truckers may not have been covering costs, partly due to poorly performing trucks, and partly because they did not have the accounting skills to know that they were making a loss. A report from UNCTAD argues that the extreme export/import imbalance in the region, whereby imports represent about four-fifths of the total transport volume to and from landlocked countries of the WAEMU, is another factor that has encouraged overloading of inbound trucks to offset the deficit incurred as a result of the lack of sufficient volumes of outbound cargo (UNCTAD, 2007).

However, since 2009, some countries have attempted to improve the application of axle weight limits through the WAEMU axle load control directive (Zerelli and Cook (2010). In April 2009, the ministers of transport of WAEMU countries and Ghana met in Ouagadougou to adopt a roadmap for the implementation of Regulation 14. By mid-2009, a few, notably Niger and Ghana, started to charge fines for overloaded trucks. Mali tried also to implement axle load control, but truckers responded with raise in prices and a strike leading to relaxation of controls. A new attempt was made the following year, when the eight member states and Ghana (a country with land borders exclusively with WAEMU member states) agreed on a second "roadmap" for the implementation of axle weight controls for trucks. A two-stage introduction of these controls was intended to take place (a) from July 1, 2010, with generous axle weight allowances and (b) fully from January 1, 2011. For petrochemical tankers, the implementation was supposed to take place more gradually with fines for infractions increasing in three stages until 2012.[62] Still, the roadmaps were insufficient to curb overloading on West & Central African roads. Therefore, at the 3rd Ministerial Meeting held in Ouagadougou on June 19, 2015, a third roadmap was agreed upon, with the participation of the WAEMU countries plus Ghana and Guinea. This roadmap planned the new starting point for the application of the sanctions for overloading as of June 1, 2016. Then, noting that the deadline passed without application of the regulation, a new Ministerial Meeting was convened on September 23, 2016, in Cotonou, with the same countries, postponing full implementation to February 2017.

Although the Governments of Benin, Burkina Faso, Côte d'Ivoire and Togo have not yet introduced these controls, Ghana, Mali, Senegal and Niger have tried to. The enforcement of these controls, albeit somewhat ad hoc, led to downward pressure on the loads carried, which meant that almost all truckers became loss-

[62] West Africa Trade Hub. (2010). *Implementation of Axle Weight Rules in UEMOA Member States – Lessons Learned from Transit Traffic in Ghana.*

making as they were no longer overloading. From the perspective of the shipper, the lower legal loads that trucks could carry meant that there was effectively and suddenly a much smaller regional trucking capacity than previously. On routes covering at least one country that has imposed axle weight controls, this has resulted in their conceding to higher rates to provide incentives for continued trucking. Moreover, the uncertainty due to some countries not yet having imposed axle weight controls has rendered the situation yet more complex.

The axle load limits are yet another example of where formal rules interact with informal ones. In several states, the agreed upon axle load weight regulations are implemented and enforced (such as in Ghana). However, the current practice in Côte d'Ivoire and Burkina Faso is for enforcement agencies to merely impose a charge for excess loads. This fine serves two purposes: it goes directly into the pockets of the enforcer, and it facilitates traffic by allowing non-compliant trucks to continue operating. Yet, with a correctly calibrated escalating formal rate for excess weight this informal practice could be formalized.

In sum, the enforcement of the axle load regulations presents a collective action problem in which truckers appear to individually face incentives to overload in order to gain business and maximize profits in the short run. The costs of compliance with axle load regulations (e.g. road construction, replacement of trucking fleets, etc.) have an asymmetric impact across actors and countries based on historical legacies, hampering efforts at coordination. Moreover, uncoordinated implementation means that those countries that do move first to implement policies and regulations can face detrimental impacts. In the case of Ghana, these impacts reportedly included a reduction in business for its truckers previously working out of the Port of Tema, who have since moved to other ports, leading to calls for harmonized implementation by its Ministry of Roads and Highways (ODI, 2012).

Reforms for Remaining Non-Competitive Practices

The entry point for reforms in the sector is a revised regulatory framework introducing higher quality standards for the industry, supported by private and public dialogue that will focus on ensuring compliance by both private operators and control and enforcement agencies. Higher standards will also imply higher fixed costs (newer trucks, better qualified staff, more adequate facilities, for instance). In order to avoid the pressure from the industry to increase prices, efficiency gains must derive from two sources: (i) reducing the capture by intermediaries for a better functioning of the trucking market (whereby a higher proportion of the price paid by shippers ends up in the pockets of the trucking companies), and (ii) increasing the utilization rate of the trucks to spread the impact of higher fixed costs on a larger number of rotations (thus reducing idle time between loads and during transport).

Improving the efficiency of the trucking industry in the region can reduce the cost of trade, but it is important to understand how this reduction will materialize: the gains on the direct costs of trucking are likely to remain limited; instead, it is the indirect costs linked to delays and their uncertainties that can realistically be reduced. In other words, the main gains for the shippers will be in the reduction of transport time, and more importantly in the reduction of uncertainties. Although transport prices along the main international corridors are higher than in other regions, some of the cost factors are too (notably, high duties and taxes on vehicles, high fuel prices). The industry needs to dedicate the cost savings to developing its capacity, in terms of human resources and assets, at least during the years that the reform will unfold, rather than targeting price reductions.

The overall objective of reforms is thus to allow for reductions in transport costs that would at least to some degree be translated into reduction in transport prices. Higher trucking industry profitability would allow for higher professional standards. In addition, reforms also must consider the existing business environment and constraints, such as the unbalanced traffic flows that prohibit significant economies of scale. Hence, it is necessary that the issues be addressed holistically, coordinating efforts on several fronts, including regarding access to freight and to the trucking profession as well as trade facilitation. Interaction of policies should also be considered in setting priorities so that, for example, policies that encourage

more modern fleets are linked to policies that deregulate the trucking industry and create conditions for more market-oriented trucking firms and more competition in freight pricing (Nathan Associates, 2013).

Table 5. Framework for reform of trucking and logistics services

MODES		NODES	CODES	
Professionalizing and formalizing the trucking & logistics industries	*Modernizing the organization of the trucking & logistics markets*	*Enhancing the competitiveness of maritime and inland gateways*	*Improving customs clearance*	*Facilitating transit*
Legal and regulatory framework	Transport services contracting (e.g. truck queuing)	Regulation of the terminal concession (port and dry ports)	Single Window and TIP	Interconnection of Customs
Structuring industry representation and organizing the public-private dialogue	Bilateral transport agreements (e.g. freight quotas)	Improving platform operations (e.g. port-hinterland connectivity)	Promoting compliance: risk management and AEOs for traders	Transit regimes (guarantee, interoperability of GPS tracking)
Promoting compliance (e.g. axle load); fleet renewal	Reducing asymmetry of information	Promoting containerization to the hinterland	Promoting compliance: ethics and governance for public officials	One-stop border posts

In summary, a holistic framework for the reform of trucking and logistics services comprises three thematic areas: putting in place standards and improving transparency, applying a sector deregulation and reforms related to intermediaries, and promoting the regional agenda. Across these focus areas, the required reforms cover a number of aspects of transport and transit facilitation, namely: *modes*, which relate to the reforms for professionalizing and formalizing the trucking and logistics industries and modernizing the organization of the trucking and logistics markets; *nodes*, or reforms related to enhancing the competitiveness of maritime and inland gateways; and *codes*, or reforms aimed at improving Customs clearance and facilitating transit. Table 5 summarizes the individual reform actions under the "*modes*, *nodes*, and *codes*" typology. Reforms covering standards and improved transparency are colored white, those related to sector deregulation and intermediaries – light gray, and those needed to promote the regional agenda – dark gray. The first two columns are specific to the trucking industry, focusing on the quality standards and the functioning of the market, while the other pillars focus on the operating environment for trucking, but also more generally on the overall logistics environment for trade.

Improved standards and transparency

Reforms in this area should be geared toward a structural transformation of the trucking sector from its current artisan and informal status to a modern, high-quality service delivery that places the interests of cargo owners in the center and operates according to the principle of cost optimization while abiding by the existing laws and regulations. Professionalization and formalization of the trucking and logistics industries require (i) establishing a comprehensive legal and regulatory framework, (ii) structuring industry representation and organizing the public-private dialogue, (iii) promoting compliance with existing regulations, and (iv) promoting the use of more efficient fleets. The legal and regulatory framework is the set of rules that govern access to the transport and logistics professions, defining, among others: commercial versus own-account transport; standards for establishing trucking companies; the required expertise of the trucking company staff and the modalities needed to provide and establish that expertise as well as the necessary characteristics of the trucking company assets such as vehicles. The legal and regulatory framework should also be conducive to the establishment of well-resourced formal companies and promote the merger of the many existing small operators. Finally, it should also formalize the role of transport brokers. It is expected that the increased level of professionalism of trucking operators, achieved through higher standards for access to the profession and provision of capacity building, will gradually allow them to operate independently from the *coxeurs* and to source freight through more formal and less predatory channels.

Based on international experience, there are three main types of schemes regulating international transport market access, namely national criteria, bilateral road transport agreements, and multilateral agreements and schemes. Under the national criteria type of schemes, the example of China is relevant in that transport operators must acquire experience on domestic markets and use vehicles corresponding to high technical standards before being authorized to perform international transport services. The *multilateral* criteria used in the European Union (EU) have been widely replicated at a smaller scale in various parts of the world and are therefore a good reference for designing such a reform.

In many West & Central African countries, the legal and regulatory framework is either incomplete or silent on critical issues. Depending on the actual gaps, revising that framework may require drafting a new transport sector law or making more minor adjustments through decrees and regulations. However, this cannot be done by governments alone—involving the industry is critical. In many coun-

tries, professional unions lack the capacity to effectively participate in the policy dialogue and tend to have limited constituencies. Restructuring the unions, possibly under an umbrella federation, is critical to ensure that the reform-related dialogue includes all stakeholders. The large number of underutilized trucks in the sector implies that reforms aimed at professionalizing the sector (and hence reducing the number of trucking companies in business) would be unlikely to raise the prices of trucking services. However, they would necessarily imply the emergence of different firm structures—i.e. moving from the currently predominant one-man-one-truck model to a model in which each company has at least several employees operating several trucks.

A significant part of the West & Central African trucking industry will not be able to comply with the new standards set by the proposed reform. Liberalization of the trucking market will not, by itself, be sufficient to trigger the professionalization of the industry, mandatory measures for the qualitative improvement of trucking industry standards will also be required. At the same time, trucking operators will not have the resources to finance compliance with higher standards if the current market organization and prevailing operating conditions remain the same. Therefore, in addition to improving the freight transport market transparency and clearing mechanisms, reform should be geared toward a structural transformation of the trucking sector from its current artisan and informal status to a modern, high-quality service delivery that places the interests of the cargo owners in the center and operates according to the principle of cost optimization. Some operators will need support to restructure their operations to become compliant, such as through additional training and facilitation of access to better vehicles, while some others will not be able to adapt at all and will need assistance to be able to exit the industry, such as training in a new profession. Enforcing the new legal and regulatory framework is equally critical, as perceived lack of compliance can become a trigger for extorting bribes. Compliant operators need to be sufficiently rewarded, such as by providing them with better access to financing. The transition to the new standards needs to be irrevocable but gradual, to give the operators sufficient time for adjustment.

In addition to compliance with the conditions to access the industry, another priority area for improving trucking sector efficiency is the enforcement of compliance with existing regulations in the areas of axle load control. The West Africa Trade Hub, after several interview-based studies conducted on the region's corri-

dors[63], identified the implementing ECOWAS and WAEMU axle load regulations as central in terms of potential cost savings. Efforts to improve compliance with the existing overloading regulations would also need to be accompanied by incentives to improve the technical quality of the region's trucking fleet. Aside from direct fleet renewal subsidies and government supported truck leasing programs, an incentive to improve fleets could be provided through an increase in the tax on fixed costs relative to variable costs, making trucks able to cover higher annual distances more competitive. In addition, governments could also institute a lump-sum import tax on trucks or even a proportional tax with a rate that increases with truck age. Financial institutions should be encouraged to offer favorable credit to transporters to invest in new vehicles.

Improving Customs clearance and border crossing procedures in the region requires the implementation of single windows and trade information portals, better compliance with risk management and authorized economic operator (AEO) schemes for traders, and efforts to promote compliance with increased ethics and governance standards for Customs officials. Information and communications technology (ICT) tools for trade facilitation have proven very effective in reducing clearance times. Trade information portals inform traders of the paperwork and procedural requirements linked to their transactions and therefore improve the preparation of the required documents, while single windows have a more operational focus through the automation of transactions. The lack of good record-keeping of compliance with regulations is closely linked to the lack of incentives for operators to remain or become compliant, given that border agencies apply the same blanket approach and excessive controls to both compliant and fraudulent operators, in the absence of effective risk management schemes. It is thus important to put in place screening mechanisms – the so-called 'green channels' for AOEs—that make compliance a rational economic choice. Finally, the same way trucking operators must be incentivized to comply with regulations, it is important to establish complaints registration and sanctions mechanisms to eradicate the illegal practices by individual members of border management personnel.

[63] WAEMU / West Africa Trade Hub (2013). *Abidjan-Ouagadougou Corridor Road Governance Report*. May. West Africa Trade Hub. (2010). *Implementation of Axle-weight Rules in UEMOA Member States - Lessons Learned from Transit Traffic in Ghana*. West Africa Trade Hub. (2012). *Transport and Logistics Costs on the Lomé-Ouagadougou Corridor*. Prepared for USAID, January. USAID. (2011). *Regional Agricultural Transport and Trade Policy Study*. West Africa Trade Hub Technical Report #41, United States Agency for International Development.

Over the longer term, to enhance the competitiveness of maritime and inland gateways in the region, regulations need to be put in place to guide future port and dry port terminal concessions, and physical investments must be made to improve the port-city interface and port-hinterland connectivity. Increasingly, the private sector is involved in the management and financing of terminals, both in ports and dry ports, but the public entities often lack adequate skills and instruments to effectively regulate such concessions. Most ports in West & Central Africa are surrounded by metropolitan areas, creating congestion due to the intensive freight traffic movements, while the flow of truck traffic from ports is increasingly impacted by urban congestion. Traffic management measures used to address these bottlenecks should be combined with investments in truck parking facilities outside the cities, close buffer parking yards for trucks planning to enter the port area, and truck appointment schemes to schedule the pick-up and delivery of goods.

Sector deregulation and reforms related to intermediaries

To improve competition in the trucking sector and reduce the role of predatory intermediaries, policy reforms need to, first and foremost, advocate for direct contracting and support modern mechanisms that help match supply and demand. In a regulated environment like the one in West & Central Africa, both formal and informal regulatory constraints must be dismantled for they are the root cause of limited competition, poor service and high transport prices (Macchi and Raballand, 2009). Therefore, to improve the efficiency of the trucking industry, the governments should, first, dismantle the institutional mechanisms that promote truck queuing to the detriment of free-market contracting (Terevaninthorn and Raballand, 2009). Greater business efficiency in the trucking sector would result not only from direct competition but also from the mere *threat* of competition, for instance, as a result of the removal of the freight allocation quotas (Zerelli and Cook, 2010). On the region's corridors where the oligopoly is strong, the disbandment or reorientation of the institutions that underpin it is urgently required, while on other corridors it should be possible to pursue dismantling the oligopolies at the same time as pursuing other transport and transit facilitation activities. Standard transport contracts would bring transparency in the roles attributed to each party – including the shippers, the trucking companies, and the intermediaries – and could constitute an input into a statistical system managed by the transport regulatory authorities to monitor freight markets. Reduction in the asymmetry of information regarding freight availability and demand for trucking services is one way to prevent the predatory practices of intermediaries that can

help trucking and logistics operators to better plan their operations. Online mechanisms such as freight exchanges are one possible solution although they have had mixed results.

International best practices recognize the desirability of standardizing the conditions governing contracting for the international carriage of goods through consignment notes, particularly with respect to the liability of the carrier. In Nepal, the national authorities, with the help of USAID and the World Bank, are modernizing the legal framework for trucking within the context of a regional corridor project between Nepal and India. The aim of the reform is to eliminate the practice of truck queuing, also prevalent in West & Central Africa, which has been estimated to cost the country as much as US$65 million per year. In India, it is estimated that the replacement of the currently dominant spot freight transport agreements with the longer term rate contracts would result in cost reductions per ton-km of about 5-10 percent due to reduction in empty backhauls and by another 5 percent due to reduction in idle time. In Mexico, the gradual sector deregulation implemented in 1980s allowed shippers and traders to contract directly with trucking service providers by eliminating the obligation for firms to belong to central cargo stations. Within five years of deregulation, transport prices to end users had dropped by 23 percent in real terms. Similarly, largely because of trucking sector deregulation, trucking costs in France fell by 33 percent between 1978 and 1998.

In the long term, increased containerization of freight all the way to the hinterland will be essential to further enhance the competitiveness of the inland corridors. Containers were invented for door-to-door use, but there are many disincentives in West & Central Africa that prevent their use in inland transport: shipping lines require a deposit to be paid before releasing their containers for inland destinations; low freight volumes in the hinterland lead to high operating costs of the inland container depots (ICDs, or dry ports); and trucks or containers they carry are immobilized at their destinations while going through lengthy clearance processes instead of enjoying efficient ICD-to-ICD operations. Moreover, in the absence of overload control, traders have the incentive to combine the freight shipped in several containers on the same truck. Promoting containerization to the hinterland requires overcoming all these constraints, which currently is only possible when the shipping line controls the inland logistics under a through bill of lading.

The regional agenda

Both national and simultaneous regional-level reforms are necessary. National reforms on their own – in areas such as Customs, axle load control, truck registration, mandatory technical standards and inspections, driver training, insurance requirements, and access to the profession and to the market – will accomplish little in the absence of a fundamental and meaningful reform of the regional governance and regulatory framework. Likewise, reform of regional arrangements, such as freight sharing quotas and joint border procedures, will accomplish little unless appropriate, coherent and compatible national frameworks are in place.

Bilateral transport agreements regulate a number of provisions for international transport but mostly focus on cargo sharing arrangements. Access to the freight market is a sensitive issue in West & Central Africa, with cargo reservations, issues related to return loads, exclusion of "strategic" goods, cabotage restrictions, etc. Liberalizing the movement of goods should be an objective of revised bilateral agreements, including through measures for mutual recognition of transport and logistics services, provisions for transit arrangements…

In addition to liberalizing access to freight through revisions to the existing bilateral agreements, the regional agenda in West & Central Africa can be advanced through transit facilitation measures such as the interconnection of Customs; improvement of transit regimes; and introduction of one-stop border posts (OSBP). The West Africa region has opted for a single Customs declaration covering the entire transit process, and Central Africa has adopted a similar approach, which requires developing interfaces between the Customs IT departments of the countries involved in the transit. However, besides the single Customs declaration, it is also important to have a single guarantee regime covering the transit during the transport process and to ensure the inter-operability of the Global Positioning Systems (GPS) tracking of transit goods. The current TRIE system has not been implemented as intended, although an agreement has been reached by several countries to issue a single guarantee covering two countries at the point of departure, removing the need to duplicate the procedure at the inland border. Moreover, there is a lack of alignment between the development of ambitious OSBP facilities and the planned modalities for the transit regime, in which stops at borders will be kept to a minimum, requiring minimal facilities.

Because reforms will create not only winners but also losers, a gradual implementation approach should be preferred for several of them, as drastic legal changes

may reinforce corruption and perpetuate or even induce informal practices. While some reforms are less complex and can be implemented in the short to-medium term, others will require a longer-term commitment. As noted previously, the existence of a robust legal and regulatory framework will be paramount for improving sector efficiency; however, its full development may realistically be achieved only in the longer term. In contrast, while less politically sensitive and therefore more easily implementable in the short term, measures such as financial support for truck fleet renewal are not, by themselves, of highest priority. Still, their implementation is key for helping the operators more easily adjust to the other proposed reforms, such as those aimed at sector professionalization and liberalization. In other words, fleet renewal support schemes represent one of the few 'carrots' available to implement other, but more painful, reforms.

Progress in Trucking Sector Reforms to Date

National government reform programs

In the last few years, several countries – notably Burkina Faso, Côte d'Ivoire, Benin, Niger, and Togo – have initiated an ambitious reform agenda to modernize the road transport and trade environment, including measures to professionalize the trucking industry by reforming access to the profession, improve the functioning of the transport market, facilitate the renewal of the truck fleet, and streamline trade and transit procedures (World Bank, 2016b). Reforms in the sector have also gained a more regional focus, for example, the Ivorian reform program is coordinated with similar reforms in Burkina Faso, in order to reduce trade, transport, and transit costs and prices along the Abidjan-Ouagadougou corridor (World Bank, 2016a). Among others, these reforms target areas such as professionalization and formalization of the trucking industry and organization of the transport market towards containerization and transparent pricing. The interventions aimed at improving transport services in the region have so far mostly been regulatory or infrastructure related. There are almost no projects that create incentives to improve the quality and diversification of services, such as micro-financing or subsidies to renovate fleets or purchase loading equipment, which are closely linked to improving competitiveness (Nathan Associates, 2013).

Senegal has been actively pursuing measures to reduce obstacles to expanding the volume of trade passing along the Dakar-Bamako corridor. In recent years, the Government has been promoting investment not only in the Port of Dakar – with an expansion of the container terminal – but also pursued various other trade facilitation initiatives such as the establishment of a logistics platform and Customs projects on paperless processing, electronic filing and payments, and electronic tracking. Senegal Customs has been working on developing an AEO program, and defining criteria for certifying authorized traders. Transport and delivery of containers from the Port of Dakar was deregulated in late 2009,[64] allowing all authorized companies to transport and deliver containers to and from the Port of Dakar. Following the unfavorable results of the WAEMU Improved Road Transport Initiative (IRTG) report, Senegal committed to reducing and harmonizing the number

[64] As per Inter-Ministerial Order 6365, dated December 31, 2009.

of checkpoints between Dakar and Kidira (border with Mali). The Gendarmerie has been adopting various anticorruption measures, such as a toll-free number to report illegal checkpoints and officers carrying ID badges and GPS devices to enable easy identification and reporting. The initiative aims to reduce the number of checkpoints to three, and co-locate all control agencies at these checkpoints only (including weighbridges for the enforcement of WAEMU axle weight regulations). The proliferation of ongoing programs, projects and initiatives in Senegal underscores the fact that the country's leaders recognize that transportation is a priority; however, it also suggests that transportation capacity planning is not coordinated by an overall long-term strategy. The country also continues to experience enforcement challenges, with control points along the corridor, WAEMU axle weight limits, and the TRIE agreement (Booz Allen Hamilton, 2010).

In Côte d'Ivoire and Burkina Faso, Governments have prepared comprehensive programs to reform the transport sector. Both countries have decided to redefine the criteria for access to the profession, also differentiating between commercial and own-account transport (World Bank, 2016b). The Burkinabe Strategy for Accelerated Growth and Sustainable Development and Transport Strategy for 2011-2025 mention the need to introduce measures enabling the emergence of professional and efficient transport companies. The strategy aims to create the conditions for harmonious planning of actions in the sector based on several key principles, including (i) strengthening of the competitiveness of transport services; (ii) consolidation of regional integration, (iii) easing of administrative and Customs procedures for international trade transport operations, and (iv) development of containerization (World Bank, 2014). There are visible pressures within Burkina Faso's Ministry of Transport and Ministry of Economy and Finance to reform the sector even in the presence of resistance. In Côte d'Ivoire, the Strategy of the Ministry of Transport aims to modernize the road transport sector by reforming driver and vehicle licensing, professionalizing the trucking industry, and promoting fleet renewal (Ministry of Transport of Côte d'Ivoire, 2013). The country is also undertaking reforms regarding the issuance of the Single Transport Document, which now replaces the consignment documents; tracking of vehicle overloading; and the facilitation of Customs and transit procedures. These reforms will be built on a modern infrastructure resulting from large-scale projects in the road and rail subsectors, specifically, the Abidjan-Lagos highway project, the Yamoussoukro-Ouagadougou highway project, and the Abidjan Interurban Transit Center, the largest in West Africa (World Bank, 2016b).

With World Bank support, the Burkinabe Shippers Council has piloted a virtual freight exchange to replace the quota system and the truck queuing with a market-based exchange to distribute freight to transporters. Formal sector stakeholders in both countries reacted positively to the prospects of such a pilot and of a functioning freight exchange. However, the reality of Internet access challenges in the region is a serious constraint for the success of such systems. To encourage increasingly compliant behavior among economic operators, the Customs administrations in both Burkina Faso and Côte d'Ivoire will put in place an AEO regime that will include trader profiles based on a risk management system. The common vision of the two countries for the medium term was spelled out in a joint Letter of Development Policy in 2016 (World Bank, 2016b). One of the key objectives of this common vision is to improve the efficiency of transport services on key corridors, such as the Abidjan-Ouagadougou corridor, and to better serve the tradable sectors of the economy (World Bank, 2016a).

The Government of Togo has prepared a national strategy for the transport sector and has already implemented several reform initiatives to boost the competitiveness of the Port of Lomé, the gateway seaport for all goods arriving in the country and destined to neighboring landlocked destinations. It is also promoting improvements of the associated transport and logistics services, such as by implementing a single window, adopting a new Customs code, improving roads, and removing checkpoints. Furthermore, the country is currently in the process of setting up a National Trade Facilitation Committee (World Bank, 2017b).

In Niger, there have been attempts to abolish the non-competitive freight allocation schemes. A 2007 government decree[65] states that the 2/3-1/3 rule to distribute traffic between local transport companies and the coastal country transport companies is still in effect, but that all trucking operations within the Nigerien 2/3 quota are open to total competition, as opposed to distributed using the truck queuing system. Yet, a workshop organized by the Government on the Nigerien transport industry with various stakeholders to discuss the decree was boycotted by the trucking association, and the decree remains largely on paper only (Macchi and Raballand, 2009).

The region's governments are also concerned about ageing vehicle fleets and have started to take various measures to remedy the situation. In Senegal, the Government has prohibited the importation of vehicles older than eight years and has

[65] Ministerial Decree No. 09/MT/DTT-MF of February 2007.

conducted a dialog with economic operators to consider financing options for fleet renewal. Senegal's most recent three-year investment program (2016-2018) plans to rejuvenate the truck fleet through a comprehensive renewal program. Thus, for large-capacity vehicles over 25 years old, up to 3,000 vehicles were planned to be renewed in the first phase, for which about US$400 million have been committed. A pilot sub-phase of 1,600 vehicles that started in 2016 is financed by the National Bank for Economic Development (BNDE) under state guarantee. As of December 2016, 73 trucks had been purchased, the BNDE had contributed US$8.9 million, and a second tranche of 150 trucks was under preparation. The mechanism is based on the registration of truckers at regional offices of the National Cooperative of Freight Carriers, and the allocation of funds is made based on the order of entry, which does not give priority to oldest vehicles. The financial benefits include the tax exemption of the truck purchase, and a scrapping premium. However, due to BNDE's limited capacity, other sources of funding will be needed to ensure the program's sustainability (World Bank, 2017c).

Several other countries in West & Central Africa followed suit and adopted programs for fleet renewal. The Government of Mali already some time ago put in place a mechanism consisting of tax exemptions for new vehicles to foster the renewal of the truck fleet for inter-state goods transportation (UNCTAD, 2007). In Côte d'Ivoire, the Fund for the Development of Road Transport (FDTR) was established in 2009 as a subsidiary body of the Ministry of Transport. This body was initially in charge of providing the required sureties towards banks and financial institutions for operators willing to renew their fleet. In 2014, in reaction to the absence of results, it was decided to change the legal status of the FDTR to a public establishment with commercial and industrial character. Under this new status, the FDTR's Managing Council is composed of representatives from key ministries, transporter associations, and representatives from organizations of vehicles traders. The objective is to facilitate the role of FDTR in providing financial assistance to the transport operators willing to invest in renewing their fleet. It is based on a Public-Private Partnership involving banks and financial institutions, vehicle traders and state bodies. The official goal that was announced in 2014 was to allow the financing of 300,000 vehicles (new or used but less than five years old) by 2020 with a budget of nearly US$260 million. So far, however, eligibility criteria applicable to operators, old vehicles to be replaced and new vehicles to be financed are yet to be defined, and scrapping methods and policies have to be adopted.[66] In

[66] World Bank / IRU. (2016). *Road Freight Transport Services Reform: Guiding Principles for Practitioners and Policy Makers*. World Bank, Washington, D.C.

contrast to Côte d'Ivoire, transporters in Burkina Faso have already benefited from tax relief measures on imports of transport vehicles. These measures have allowed reducing the overall age of the fleet through its renewal. Despite these measures, however, new vehicles still account for only about 30 percent of the overall Burkinabe fleet (ENSEA, 2014). On Lomé corridors, trucking operators still mostly finance their truck acquisitions from cash flow. While the legal and regulatory framework governing truck leasing in Togo is sufficiently developed, thanks to the regional effort to pass the leasing law by the WAEMU, at the national level there is a need for adequate fiscal measures, such as concerning depreciation and the amortization schedule, to ensure that leasing is attractive (World Bank, 2017b).

As noted by the surveyed World Bank staff, some reform aspects have tended to be left out because of lack of political will to take on the strong vested interests in the trucking industry and because of linkages between this industry and the political sphere. In other words, politicians themselves are often directly or indirectly linked to the trucking lobby and share its vested interests. Another issue is that there are perhaps too many different reform initiatives being pushed by too many different parties, explaining why the implementation of reforms has been uneven. Key to making progress on some of the more difficult reforms was finding a champion on the ground. In the case of Cameroon and the unique transit regime proposed for the CEMAC zone, despite initial opposition by Customs, two such key champions have been the Customs Director and the Single Window Director. More broadly, the users of trucking services would be likely champions of reforms if they resulted in lower trucking prices.

Reform attempts by Regional Economic Communities

Regional Economic Communities in sub-Saharan Africa consider transport as one of the most important growth enablers and have therefore developed legal instruments to harmonize rules and practices amongst their respective member states. However, corridor management and transit traffic performance have improved only marginally.[67] One of the main obstacles to a better regional integration has been the weak implementation and enforcement of the multilateral instruments at national levels. Another reason is the large number of existing organizations

[67] Runji, J. (2015). *Africa Transport Policies Performance Review: The Need for More Robust Transport Policies,* SSATP Working Paper No. 103. Africa Transport Policy Program, Washington, D.C.

(ECOWAS, WAEMU, others), which may generate confusion with respect to countries' obligations, when they are members of more than one such organization (World Bank/IRU, 2016). Moreover, while the overarching objective of the RECs in the region has been to increase regional economic integration and intra-regional trade, in most cases these objectives are general in nature and not associated with specific performance targets (Runji, 2015).

In West Africa, most of the efforts of the RECs in the transport sector have been in setting standards; however, the details of the standards have not always been fully fleshed out, and no actual means of enforcing them have been put in place (for instance, in the case of regulation setting regional axle load standards). In Central Africa, a set of agreements on freight transport were adopted in the second half of the 1990s under the auspices of CEMAC. These agreements include the Interstate Convention on Carriage of Goods by Road, an inter-state multimodal transport convention, a regional insurance scheme, and the Orange Card Insurance System. However, despite these regional conventions, bilateral agreements and national regulations still dominate legal arrangements for transit transport activities. Across West & Central Africa, the level of implementation is generally higher for bilateral agreements than for multilateral ones (UNCTAD, 2007).

Under its Second Development Plan (DP2), the SSATP facilitated meetings of the Transport Coordination Committee (TCC) of the RECs. During the October 2014 meeting, the RECs expressed their preference for a REC-TCC focused on knowledge sharing and exchange of experiences, recognizing the role that SSATP can play as a facilitator of such capacity building activities. They also made the point that coordination at the continental level between transport and Customs remains weak and that the knowledge sharing/exchange of experiences of the REC-TCC could be used to strengthen this coordination (World Bank, 2016d). The SSATP TFF (Trade Facilitation Facility) Corridor Focused Facilitation Program (completed in 2015), focusing explicitly on accelerating reforms at the *corridor* level, was developed by the RECs and corridor management institutions to support part of their respective action plans. The Program activities were part of a larger program aimed at strengthening regional integration and improving corridor performance. From its definition to implementation, the program was driven by the REC-TCC. The REC-TCC also defined, through an extensive consultative process, the regional integration component of the SSATP Third Development Plan (DP3) covering the period 2015-2019. The strategic priorities of the regional integration component of the DP3 are to (i) promote effective policy and strategy

formulation and implementation for corridor development at country and regional levels, (ii) develop capacity among institutions for inclusive policy dialogue on regional integration, and (iii) promote efficient logistics services.

Some efforts have been made by WAEMU to establish regional trade information portals, and there is ongoing work by ECOWAS and WAEMU on transforming the Observatory of Abnormal Practices into a West Africa Transport Observatory that would monitor and remove the non-tariff barriers affecting trade, particularly the high incidence of roadblocks and other factors affecting the cost of transport along the major corridors in West Africa (World Bank, 2015c). The two commissions have also been developing regional trade facilitation programs that will deal with regional issues, such as Customs interconnectivity, regional transit and tracking systems, capacity building of Customs brokers, and establishment of corridor management committees. ECOWAS has also proposed the creation of a regional electronic transit system (ALISA) to harmonize Customs tariffs and transit fees (Nathan Associates, 2013a).

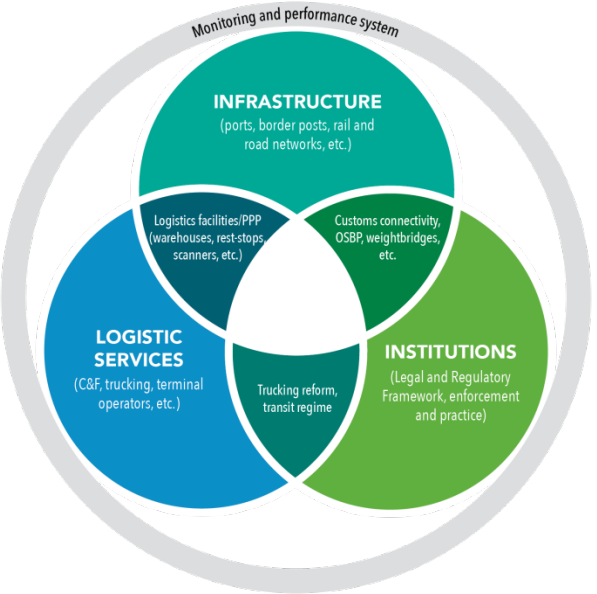
From an institutional perspective, dedicated corridor organizations, such as ALCO, appear to have been more effective than REC-driven corridor initiatives (Runji, 2015). This might be due to the more explicit focus of corridor organizations on transit traffic issues on specific corridors. Nevertheless, neither RECs nor corridor agencies appear to have the authority to implement strategies and actions in member countries. In most cases, REC policies have to be transformed into and adopted as national policies to be implemented and to receive necessary funding, as the implementation authority lies with the national governments. It is also important to note that RECs in West & Central Africa differ from those in East Africa in important ways. The East African economic communities more explicitly embed the notion of variable geometry, allowing subsets of countries to adopt regional rules faster than the rest, and allow for intermediate levels of arrangements. In West & Central Africa, the rule is consensus and "no one left behind," which makes regional integration move at the pace of its slowest member.

World Bank's engagement in sector reform

Since the 1970s, the World Bank has actively supported the improvement of transport corridors in Africa, and for many years such support focused almost exclusively on improving infrastructure. While the improvements were essential to facilitating road transport and resulted in lower costs for the trucks carrying cargo,

no clear impact on transport prices was evident. Thus, the end-users of road transport services did not seem to fully benefit from the lower transport costs that the improved infrastructure could possibly allow (Macchi and Raballand, 2009). The entirely infrastructure-focused programs were later followed by the so-called 'first-generation' transport and regional trade programs that addressed both infrastructure gaps as well some institutional reforms.

Figure 11. Holistic approach: infrastructure, institutional framework and logistics services



Today, the approach has moved to what can be called a 'second-generation' agenda, in which infrastructure investments are accompanied by increased emphasis on policy reforms and promotion of logistics services, through the application of a range of World Bank financing and advisory instruments. The institution, through the International Development Association (IDA), is one of the many donors that finance the programs of ECOWAS and WAEMU, with investment projects totaling over US$1.2 billion in 2017. Several changes are taking place in how the World Bank approaches the sector and structures its interventions. A new approach is being experimented for improving transport and logistics services, combining a holistic view of the challenges (including access to the industry, access to freight, operating environment, trade procedures, port operations) with a mix of instruments to sustain the will for reforms and to provide the technical capacity to carry

them out. In support of the reforms initiated by the region's governments, the World Bank is implementing several complementary policy and investment operations. Most notably, it prioritized the Abidjan-Ouagadougou corridor as a suitable cross-border initiative for piloting a regional DPO to support road transport sector reforms. The DPO – the *Regional Trade Facilitation and Competitiveness Development Policy Credit* (RTFCC) – offers a common framework for coordinating reforms in Burkina Faso and Côte d'Ivoire (World Bank, 2015a). RTFCC1, approved in June, 2015, aims (among others) to reform of access to the profession and reorganize the transport market to support professionalization of the industry and improve control and clearance times of border agencies.

The RTFCC1 has already led to concrete results. New regulatory provisions on the liberalization of freight in Burkina Faso have already started to increase the competitiveness of the matching between the supply and the demand for transport services, as groups of Burkinabe shippers have procured transport services through competitive tenders. Efforts by the Burkinabe Shippers' Council to raise awareness among transporters and traders about the rolling out of the virtual freight exchange have reportedly led to an increased interest from operators wishing to register on the platform. The agreement between the Burkinabe and Ivorian Chambers of Commerce and Customs administrations has enabled the single payment of the transit guarantee at the point of departure for cargo transported on the corridor under the TRIE regime, suppressing the need for another procedure at the inland border in Burkina Faso. In Côte d'Ivoire, the automation of Customs control selectivity owing to the database of traders' risk profiles has allowed to reduce the proportion of cargo subjected to physical inspection from 56 percent at the end of 2014 to 21 percent in the third quarter of 2016 (World Bank, 2016b). The Burkinabe Customs have also started to implement automated selectivity (Direction Générale des Douanes, 2016).

The second DPO operation (RTFCC2), approved in 2016, aims at deepening the reform process in the areas of professionalization and formalization of the trucking industry, modernization of the trucking market, and transit facilitation. To that effect, triggers for RTFCC2 include the adoption of a regulatory framework defining the training curricula for road transport company managers and truck drivers, as well as the application of Article 11.a. of WAEMU Regulation 14 on truck axle load standards and controls. Under the pillar aiming to modernize the organization of the trucking market, additional triggers include (i) the introduction in Burkina Faso of a virtual freight exchange – accessible only by compliant

transporters – and allowing a competitive matching of transport services supply and demand, (ii) revisions to the existing bilateral road transport agreement, and (iii) the establishment by both Ministries of Transport of a mechanism to support fleet renewal for compliant transporters. Several of the prior actions agreed with the two Governments were designed to strengthen the implementation of measures adopted under the first DPO operation, including effective controls and sanctions for truck overloading and the definition of professional criteria for operators to participate in the transport sector. As a result of these reforms, it is expected that by 2017 the number of formally registered transport operators under the new criteria for access to the profession will increase to 300 and 3,000 in Burkina Faso and Côte d'Ivoire, respectively (from none in 2015), and that the proportion of non-compliant trucks controlled at weighing stations will decrease from 80-85 percent to 35 percent (World bank, 2016b). To support the mutual recognition of consignment notes used along the corridor, the prior action under RTFCC1 concerned the adoption by the Ivorian Ministry of Transport of regulatory measures to organize the issuance of a single transport document. Under RTFCC2, authorities and shippers' councils in both countries have ensured that inter-state consignment notes issued by both shippers' councils would be mutually recognized and that either one of these documents can be used on the corridor.

In addition to the DPO, the two *Transport Sector Modernization and Corridor Trade Facilitation* IPF projects in Côte d'Ivoire and Burkina Faso, respectively, were designed to support the Governments by providing technical and financial assistance to enable the effective implementation of transport and Customs-related reforms and modernization measures identified in the Policy Matrix of the RTFCC DPO series, and by establishing support mechanisms to help private operators to adapt to the new regulatory and competitive environment (World Bank, 2016a and World Bank, 2016c). Another key area of reform relates to the reorganization of the profession by creating a structured and institutionalized representation of the different components of the transport industry within the government. Specifically, this would be accomplished through the creation of a professional body representing the voice of the industry in its dialogue with public authorities in Côte d'Ivoire.

The Abidjan-Lagos Trade and Transport Facilitation Program is financed by the World Bank Group through IDA, and is funding rehabilitation works and trade facilitation initiatives (Nathan Associates, 2013). The first phase of the Program, including three of the five corridor member countries (Ghana, Togo and Benin),

was approved in March, 2010. The second phase, which includes Côte d'Ivoire, is expected to complete the 2010 program design. The main component, in terms of cost, is road rehabilitation, but the focus of attention is the trade facilitation component (World Bank, 2012a). In parallel to the efforts supported under the program to facilitate trade and reduce barriers along the entire corridor, specific actions were taken to support the Customs modernization plan in Togo, and a computerized single window was established and is fully operational in both Lomé (Togo) and Cotonou (Benin). The implementation of these actions has translated in a significant improvement of port operations with great impacts on trade facilitation. For instance, the dwell time in the Port of Cotonou has decreased from 19 days in 2009 to 14 days in 2017; at the Port of Lomé it halved from 18 to 9 days. Border crossing times have declined from 24 to 20 hours at Elubo (Ghana to Côte d'Ivoire), from 24 to 10 hours at Kodjoviakope (Togo to Benin), from 48 to 31 hours at Krake (Benin to Nigeria), and from 24 hours to 10 hours at Hillacondji (Benin to Togo). There have also been significant reductions in the number of roadblocks as compared to the baseline: from 18 to 2.3 roadblocks per 100 km in Ghana, from 7 to 3.7 in Benin, and from 6 to 4 (per 53 km) in Togo. The pilot phase for the interconnection of Customs information systems between Ghana and Côte d'Ivoire was successfully tested and is planned to be extended to all border posts between these two countries by December, 2017 (World Bank, 2017d). The Program has also produced several analytical outputs which demonstrated that the high trade and transport tariffs in West Africa can be improved only upon addressing the structural, institutional, and organizational issues of the road transport industry in that area.

Currently, the World Bank Group is also supporting the reform of trucking services in Central Africa through the *CEMAC Trade and Transport Facilitation Program*. The institution is elaborating an Integrated Intermodal Transport Strategy for Cameroon, implementing a feasibility study on cargo tracking solution along the Douala-N'Djamena/Bangui corridors, and conducting a study on freight movement in Cameroon. The activities planned for going forward include technical assistance to support the implementation of the new CEMAC Trade and Transit regime, and the design and implementation of a 10-year Transport Priority Investment Program (World Bank, 2016f).

The *Togo Trade and Logistics Services Competitiveness Project* approved in 2017, comes as the World Bank's intervention for regional integration through the ALTTFP ends. The project uses the same analytical framework deployed for the

preparation of the regional DPO in Côte d'Ivoire and Burkina Faso, and aims to improve the quality of trade logistics services in Togo by supporting selective, targeted and integrated interventions to improve the business environment for the trucking, transport and trade logistics services sectors, and to strengthen the capacity of both public and private sector stakeholders in the industry (World Bank, 2017b). To address the lack of professionalization in the sector, the project will help create a legal framework and procedures for licensing of professionals, computerizing the registry for licenses, and improving the laws, regulations and requirements for transport contracts. The project will fund technical assistance to establish a legal process for licensing owners of transport companies, and a certificate system for their managers. Finally, the project will also develop a framework for the certification of professionals who have been in the sector for many years, but do not have the necessary qualifications as defined under the new system. Lastly, the project will fund the development of a vocational training program. This activity will address workers not currently employed in logistics professions and those whose jobs are at risk because of the reforms proposed in the project.

As part of the SSATP *Corridor Focused Facilitation Program*, logistics costs analyses have been carried out for several West & Central African corridors, along with a regional consensus building workshop and technical assistance to the RECs for the establishment of a corridor transport observatory (SSATP, 2015). The main factors impacting operating costs and prices were further analyzed through a series of trucking surveys. The lessons learnt on the characteristics of the sector and the mechanisms for access to freight were instrumental in the design of the regional DPO. Also as part of the SSATP TFF, ALCO requested assistance for a review of the corridor performance in terms of costs, prices and delays, and for establishing a Corridor Transport Observatory within ALCO that would monitor the ongoing regional facilitation programs, notably the ALTTFP and the European Union-funded facilitation program focused on the establishment of joint border posts. On the Dakar-Bamako and Abidjan-Ouagadougou corridors, technical assistance was provided to WAEMU for the identification of data sources that will contribute to the gateway corridors transport observatory. A currently ongoing SSATP activity – *DP3 Pillar A on Efficient Logistics Services* – will examine the impact of various regulations on competition, availability, efficiency, and reliability of logistics services, and estimate the impact of reforms on the operators and countries while outlining the cost of inaction (World Bank, 2016d). In Togo, an activity planned by the SSATP aims to prepare a draft legal and regulatory framework for road

transport services. The framework is currently being tested as part of the Togo Logistics Program.

Other development partners

To improve governance along West & Central African primary corridors, several projects have been initiated by various development partners to monitor and report on obstacles faced by the users of the road network. The series of West Africa Road Governance Reports, commissioned by USAID/WAEMU in 2005, track the number of checkpoints, delay times and bribery across eleven main corridors in West Africa, including Dakar-Bamako, Abidjan-Ouagadougou, and Lomé-Ouagadougou (Abidjan-Lagos and the Douala-N'Djamena corridors are not part of this project). The recent papers have noted significant improvements in Togo and Senegal in terms of the number of controls per every 100 km, while lesser progress has been observed in other countries (Borderless, 2013).

The Japan International Cooperation Agency (JICA) has been supporting the update of the One-Stop Border Post Sourcebook that provides resources for improving border crossings throughout Africa, while the European Union (EU) is supporting transport observatories in West Africa and in the Congo River Basin (SSATP, 2015). Generally, the EU is more action-oriented with its various support programs. In Côte d'Ivoire, it was instrumental in assisting the country in launching the reforms prompted by the regional DPO, and has run a similar program in Niger that aimed at professionalizing the industry. In contrast, USAID has mainly been supporting the West & Central African countries through diagnostic studies.

At the time the first regional DPO in the trucking sector was being prepared, several donor-funded technical assistance projects dealing with the softer dimensions of trade facilitation were ongoing in parallel, including the support provided by the EU, the World Customs Organization (WCO) and UNCTAD to interconnect the Customs operations of Burkina Faso, Côte d'Ivoire, and Mali as well as technical assistance provided by the International Monetary Fund's AFRITAC West to Burkinabe and Ivoirian Customs on risk management. To address the issues that has been raised as a result of the World Bank's ALTTFP project, the African Development Bank (AfDB) has since started a complementary regional operation on the Abidjan-Lagos corridor, between Benin and Togo. This complementary program provides additional investment, fills critical gaps that the ALTTFP could not address, and helps ensure the sustainability of the project.

Several donors have been helping with transport and trade facilitation between Senegal and Mali. In Senegal, the USAID Economic Growth Project, completed in 2014, conducted detailed logistics costs analyses on the Dakar-Bamako corridor—covering conventional costs as well as costs associated with control posts and checkpoints (see Booz Allen Hamilton, 2010). As of 2015, the German Cooperation (GIZ) has been supported trade facilitation on the same corridor. A partnership has been established between GIZ and APIX, a public entity in charge of investment promotion and infrastructure development under the Minister of Investment Promotion, Partnerships and Development of Government Teleservices. An equivalent partnership has been established with Mali. In September 2014, a planning workshop for this project with Senegalese and Malian partners was held in Saly, Senegal, where it was agreed that one of its priorities would be to support the implementation of the bilateral TRIE agreement between Senegal and Mali (GIZ, 2016b). The overall scope of the partnership is to facilitate trade between Mali and Senegal on the corridor with institutional and technical assistance on different issues (trucking, Custom facilitation, trade barriers, etc.). Specifically, a project financed by the Trade Policy and Trade Promotion Fund (under GIZ) is documenting transit procedures for the import or export of certain key products on the Dakar-Bamako corridor, so that simplification measures can be identified. The project also aims to increase the professional capabilities of transport carriers by providing training and information. In both countries, guides for drivers were produced or updated with the aim to improve road safety. The project is also working on a mobile application that allows drivers to report cases of bribery and poor practices observed on the road. As a result of the project, transit procedures have been documented in Mali, and the process is now under way in Senegal. Simplification measures have been identified for certain import goods, and their implementation could significantly reduce the number of stages. The authorities are now analyzing the options for implementing them. With the support of the project, the two Customs authorities have defined a timeline for interconnecting their computer systems. The escort fees charged in Senegal have been reduced (at least formally[68]), and the project has played a crucial role in communicating this reduction (GIZ, 2016a).

[68] The transport carriers, however, argue that the escort fees remain high (GIZ, 2016b).

Reform implementation prospects: Stakeholder support and opposition

The common assumption underlying efforts is that governments and affected parties prefer an increasingly efficient market, and that such a market can be created and made to work in practice. However, based on the World Bank's experience with reforms in the region, it is clear that some industry participants prefer the existing less economically efficient situation that is more favorable to their individual economic self-interests, to the detriment of overall economic efficiency. Meaningful reforms inevitably entail significant adjustment, and such adjustment will fall more heavily on certain countries (e.g. landlocked ones) and certain affected groups within countries (e.g. single truck operators). Depending on their level of organization and access to resources and political voice, these groups can affect the direction of the envisaged reforms and the degree to which they are implemented and successful.

The stakeholders that are the most likely to gain from reforms are shippers, consumers, producers in landlocked countries, government road maintenance agencies, formal sector truckers in all countries, and informal sector truckers who can afford to modernize their fleets. Freight brokers' business is expected to expand as a result of reforms. This is so because the elimination of quotas and queuing is expected to eliminate waiting times for trucks, which would increase annual mileages and create a more competitive environment, leading to a greater share of formal sector operators and better performing fleets. Smaller but positive gains are expected for shippers, consumers, and producers in coastal countries, since the sector as a whole will have increased transit earnings. The main losers would be the informal sector truckers who cannot afford to modernize their fleets or who do not want to join the formal sector (Nathan Associates, 2012).

In the view of the surveyed World Bank staff, transport entities with monopolistic positions and Customs are the most likely opponents of the needed reforms in West & Central Africa, since the reforms would introduce greater transparency in the system. To push the reforms through, it will be necessary to convince these potential opponents that transparency would in fact be 'good for business' and likely increase the number of transactions—in other words, that reforms are not a zero-sum game. This argument has also been put forward in the recent World Bank Handbook on Border Management Modernization[69], which discusses the

[69] McLinden, G., Fanta, E., Widdowson, D., and T. Doyle. (Eds.) (2011). *Border Management Modernization*. World Bank, Washington, D.C.

importance of building a convincing business case for border management reform. Still, the losses that will be experienced by individual stakeholders in the short term will likely be substantial and should not be ignored.

Literature and experience of countries outside the region have shown that reform efforts are also unlikely to benefit all the involved countries equally—winners and losers will emerge not only at the sectoral but also at the national level. Using the East African Community integration in the 1960s and the 1970s as an example, Venables argues that the gains from regional integration among low-income countries will accrue almost entirely to the country with the most sophisticated economy (Kenya in this instance), and that mutual gains from comparative advantages only begin to accrue as economies become more specialized.[70] However, as the more recent research by Venables and Collier suggests, policy coordination, agglomeration, and increasing market size partially offset these losses.[71]

The reliance by landlocked countries (such as Burkina Faso, Mali and Niger) on a range of regional corridors raises the issue of harmonization, without which new regulations on one corridor may impose costs or divert traffic to other corridors which may reduce the impact of reforms and the political resolve to implement them. The implementation of the WAEMU axle load regulation is but one example of regional dynamics negatively affecting the intended impact of the reforms. For example, according to stakeholders in Togo, neighboring countries are not enforcing the regulation to the same extent, which gives the transport companies in these countries an unfair advantage (World Bank, 2017b).

Looking at individual reform areas separately, it is clear that some of the existing issues are due to informal, rather than formal rules of the game, and are not grounded in specific national or regional legislation. For example, the truck queuing schemes never had any legal ground (Macchi and Raballand, 2009). Hence, their removal, too, would above all require support from trucker association representatives. Because the queuing system gives them leverage and power to avoid direct contracting between shippers and transporters, gaining such support is difficult. Zerelli and Cook (2010)'s research suggests that the truck queuing system is

[70] Venables, A. (2003). *Winners and Losers from Regional Integration Agreements.* Economic Journal. 113 (49): 747–761.

[71] Venables, A. and P. Collier. (2008). *Trade and Economic Performance: Does Africa's Fragmentation Matter.* Paper delivered at Annual Bank Conference on Development Economics. Cape Town, South Africa, June 9-11.

self-perpetuating through a set of informal sector incentives, in that the agents of the organizations overseeing the monopoly benefit from bribes from truckers to allow their trucks to jump the queue. On the other hand, as argued in Nathan Associates (2012), annual mileage of transit trucks would increase by up to 10,000 km as a result of the elimination of queuing—a clear benefit for the trucking industry although not for trucking associations.

With respect to the freight quota system, the biggest opposition to reform is likely to come from landlocked countries that were originally intended to benefit from the system the most. For instance, the Nigerien transporters' union believes that the removal of the quota system will induce the disappearance of the freight industry in Niger because it will not be able to compete with foreign carriers. This is the basis of potential resistance to reform (Nathan Associates, 2012). However, this argument does not have much merit when considering that the Nigerien fleet has already for some time been consistently unable to take its full quota.

As noted in the Poverty and Social Impact Assessment (PSIA) for the regional DPO in Côte d'Ivoire and Burkina Faso, one large group of stakeholders that will be affected by reforms or that will lose market share or access to rents are the informal truckers and transporters, but also managers, employees of the transport syndicates (some 350 in Côte d'Ivoire and Burkina Faso alone) or intermediaries… (World Bank, 2015a). The number of trucks in the transit fleet is expected to decline, leading to a decrease in direct trucking industry employment (especially in Burkina Faso). Those who are most vulnerable to the negative impacts of the reforms will be mostly informal truckers as well as coxeurs and stevedores, who benefit from the heretofore informal structure of the trucking business. The Project Appraisal Document (World Bank, 2016b) notes that the winners and losers, by reform type, are likely to be as shown in Table 6.

Thus, despite the likely substantial reform benefits (e.g. savings for the two governments of about US$200-300 million), many of the reforms may be resisted by stakeholders who currently benefit from the status quo. Concerns have also been voiced about the degree of complexity of the reforms under the DPO and the impact of training. Some stakeholders have raised concerns about the quality and capacity of existing training facilities for drivers/truckers, as well as the potential to bribe one's way into the trucking profession. The syndicate representing driving schools in Côte d'Ivoire (Synamae-CI) has already gone on strike over the planned reforms related to the professionalization of drivers, as these reforms would necessitate buying vehicles for applied training.

Table 6. Winners and losers of reforms planned as part of the regional DPO

Reform area	Winners	Losers
Professionalization, formalization of trucking industry	larger, modern and more commercialized operators	informal truckers, small truckers who are unable to modernize
Liberalization of access to freight through the introduction of a freight exchange system	larger, modern and more commercialized operators	intermediaries (coxeurs)
Modernization and renewal of fleets	big operators and small operators who have the desire and capacity to professionalize	small and individual truckers that are not able to renew their fleets despite the anticipated policy and supporting measures[72]
Reduction of roadblocks and improvement of control operations on the corridor	highly compliant operators who will benefit from streamlined and faster service	non-compliant operators unable of becoming compliant; those who financially benefit from payments made at road blocks
Enforcement of axle load regulations	road maintenance agencies; operators will save due to lower wear and tear of trucks	expected to affect small operators more than large, as they have a greater incentive to overload their fleet; unscrupulous shippers will be affected as they will have to pay more truckloads for an equivalent tonnage

The project also anticipated that measures such as the development of a virtual freight exchange may be resisted by intermediaries, who currently benefit from the status quo (charging US$85-US$105 for linking each trucker to a freight load). In Burkina Faso, the replacement of the *tour de role* by the freight exchange seems likely to strengthen the role of the Burkinabe Shippers' Council (CBC), who will manage the exchange, at the same time depriving the Burkinabe truckers' association, OTRAF, of the role they have played to date. While this may occur without resistance, it is also possible that OTRAF will seek other ways to maintain their foothold as a key interface between freight and transporters, potentially through a role at truck parks. Moreover, there is a real danger that the virtual freight exchange may be captured by traditional monopoly holders for the distribution of freight without opening up the system to allow for full inclusivity, transparency and effectiveness. An AEO system being put in place by the two Governments is likely to exclude numerous operators unless accompanied by support and targeted

[72] Yet, a well-designed scrappage scheme could meaningfully contribute to fleet renewal efforts and in the provision of financial resources to those truckers leaving the industry.

training to offer the opportunity to reach AEO status for those who wish to try. Failure to do so will discriminate against low-income truckers who as a group may mobilize against such an approach. The creation of an AEO system could result in greater non-compliance, should collusion between operators and the authorities be such that operators can gain AEO status without actually being compliant. Given the current state of regulatory non-enforcement, the ease with which informal arrangements arise, and the willingness of agents to collude, is a very real possibility. In other words, the AEO discussion exemplifies one of the underlying issues in the sector—the lack of enforcement.

The *Togo Trade and Logistics Services Competitiveness Project* documents note that many public and private stakeholders in the trucking, transport and trade logistics community stand to benefit from the Program. However, while economic gains of such reforms are anticipated to be net positive, there may still be losers. The winners are, first and foremost, the government agencies that will receive support from the project, such as the Ministry of Transport, the Ministry of Commerce, and the Togolese Revenue Office. There are also many potential private sector beneficiaries, such as transport companies and truck drivers, who will benefit from the provision of a capacity building program. Instead, informal transport operators, who tend to be older and illiterate, are the most vulnerable group. The road transporters' and truck drivers' unions have expressed strong support for the proposed reforms, recognizing the need for change, but have insisted on additional measures for this group. In addition, there are non-categorized risks such as the dynamics of regional and bilateral agreements affecting Togo's reform efforts. For example, the competitiveness of the Port of Lomé and the Lomé-Ouagadougou corridor partly depend on developments in Togo's neighboring countries.

The attempts to enforce the WAEMU axle load limit of 11.5 tons/axe has exemplified in the past the difficulties involved in implementing reforms and the ways in which it might be resisted in the future. Promoters of the policy expected that it would not only reduce road maintenance costs and accidents but also force informal truckers (who depend on overloading to make a profit) to withdraw from the market. The resulting regional fleet would be more modern in its management and more efficient. However, resistance to effective enforcement and incentives for non-compliance are strong, as most stakeholders have a vested interest in operating with overloads (Teravaninthorn and Raballand, 2009): truckers who receive extra income for extra tonnage, intermediary freight agents, given that their commission is calculated on tonnage, shippers because of savings on transport costs as

well as law enforcement agents (including Customs) who can demand informal payments. Enforcement of axle load controls implies that the same amount of goods will be transported on more trucks, which may imply higher costs. In such environment, interest groups such as transporter associations may renegotiate drastic price hikes, as was the case in Niger. Further, there is the risk that trucking price increases will filter through the price system (Zerelli and Cook, 2010), to a point that they may meet resistance from the population. Thus, much will depend on how fast the reform measures and related industry adjustment improve truck utilization and turn-around rates, eliminate unnecessary intermediary costs and increase competition so as to enable lower rates over the medium and long term.

Given that some 80 percent of trucks on individual corridors (as on the Abidjan-Ouagadougou corridor) are overloaded, a strict enforcement approach may lead to resistance to reforms and efforts to undermine them, as seen in Ghana. Londoño-Kent (2009) has argued that in countries at the level of economic development such as in West Africa, imposing strict overloading penalties and investing in expensive control systems is unlikely to deter overloading and is more likely to create more opportunities for unofficial payments. Thus, several conditions need to be present to enable the full implementation of axle load regulations. In particular, reforms of access to the profession and support for truck fleet renewal are key to ensure that operators have incentives and capacity to respect regulations (World Bank, 2016b). At present, financing of trucks through cash flow is still by far the most common method, but not necessarily by choice. Banks are known to be reluctant to finance assets that are highly mobile and will move outside of the borders of the country. For instance, on the Douala-N'Djamena corridor, formal financing of fleet renewal through loans or leasing is done only in about 19 percent of the time in the case of artisan (small) trucking firms, and the share remains at less than half even in the case of 'professional' trucking companies with relatively large fleets. Similarly, as shown by surveys conducted in Côte d'Ivoire and Burkina Faso, self-financing is the method for financing vehicle purchase for 86 percent of Ivorian and 78 percent of Burkinabe trucking companies. Formal bank loans are used for financing only 2 percent of all vehicle purchases in Côte d'Ivoire. In Burkina Faso, the share of trucking companies that use bank loans to finance at least part of the purchase is considerably higher, at about 25 percent, but still remains low compared to the share that is self-financed (ENSEA, 2014).

Overall, it is not fully predictable what forms the resistance to reforms by truckers associations and intermediaries might take, how organized they might be in their resistance, or how long they could sustain a confrontation with public authorities.

Past experience shows that the resistance might be manifested in the form of strikes on a scale that is paralyzing to the flow of goods, as was the case with the trucking sector in Mali and the passenger traffic sector in Côte d'Ivoire. However, truckers associations and syndicates have lost some of their organized bargaining power, especially in Côte d'Ivoire, where the fragmentation within the syndicates and the truckers associations means that resistance to reforms is unlikely to be centrally mobilized or well organized. In contrast, Burkinabe associations are fewer and larger, better organized, more influential and with seemingly greater ties to the political level. They also appear to be broadly supportive of the proposed reforms. Similarly, some informal practices are likely to adapt and to survive the new institutional frameworks.

The lack of alignment between the reform positions of specific state entities vis-à-vis those of their employees (i.e. individuals *within* institutions) also presents a potential risk for reform implementation. For instance, land borders are usually very rewarding positions for individual corrupt Customs officers, whereby reforms facilitating border crossing would be undercutting this informal source of income. Similarly, reforms might be resisted by individuals in the regulatory agencies who in the past have taken bribes in exchange for facilitating parts of the system, in fear of being exposed if the status quo changes.

Finally, it is important to note not only the losses that will be incurred in the short to medium run by the many stakeholders that currently benefit from the system's inefficiencies and lack of transparency, but also the substantial upfront costs that the implementation of reforms will entail for the region's governments and their development partners. Based on the funding of individual reform components sourced from a number of World Bank programs in the region, several of the reforms, such as those aimed at modernizing truck fleets, will cost governments tens of millions of dollars. Some others, such as those intended to improve the efficiency of Customs, will require smaller budgetary outlays. Nevertheless, every one of the reform actions will imply some opportunity costs for the public sector, which will need to be carefully justified to have a chance of being implemented.

Examples of Reforms outside West & Central Africa

This chapter draws directly and entirely on the following studies: World Bank/IRU (2016), World Bank (2016b), SSATP (2015), Terevaninthorn and Raballand (2009), Kunaka and Carruthers (2014), Kunaka et al. (2013), Combes and Lafourcade (2005), Pinard (2011), and AT Kearney (2017).

Trucking sector professionalization

Market access for road transport operators can be regulated at both the national and international levels, based on criteria that are qualitative, quantitative, or a combination of the two. The criteria used in the EU have been widely replicated (mostly at a smaller scale) in various parts of the world. They therefore seem to be a good reference to be used when designing such a reform (World Bank/IRU, 2016). For example, the qualitative criteria stipulate that all EU truckers can carry goods within the EU as long as they meet the requirements for access to the profession of road transport operator. Currently, operators must fulfil four criteria to access the profession: have a good reputation, detain capital assets every annual accounting year of at least €9,000 for the first vehicle and €5,000 for each additional vehicle, have professional competence, as measured by an obligatory exam with common grading and certificates, and have an effective and stable establishment in a member state (Kunaka and Carruthers, 2014).

Generally, there are three main types of schemes regulating *international* market access, namely national criteria, bilateral road transport agreements as well as multilateral agreements and schemes. Under the national criteria type of schemes, the example of China is relevant in that transport operators must acquire experience on domestic markets and use vehicles corresponding to high technical standards before being authorized to perform international transport services. Turkey introduced criteria for access to the profession and markets for road transport operators performing international activities, before applying such criteria to the entire industry. Some of the key reasons for that were the desire to create a good image of

professionalism for the Turkish industry abroad, and the intention to create a champion for the complex reforms of the sector, which were undertaken later.

An example of the multilateral type of schemes is the European Conference of Ministers of Transport (ECMT). ECMT multilateral permits authorize transport undertakings established in a member country to carry goods by road for hire or reward between member countries or in transit through the territory of one or several member country(ies). The licenses are not valid for transport operations between an ECMT member country and a third country, nor for cabotage operations. Besides being a significant facilitation tool, the ECMT multilateral quota system has played an important role as the main incentive for professionalizing the road transport industry and making the fleets cleaner, safer and more efficient. More specifically, the scheme rewarded an increased number of permits for vehicles with higher noise and emissions standards. Only operators authorized in conformity with the criteria for access to the profession could apply for permits (World Bank/IRU, 2016).

In sum, of all the international examples, the EU rules represent the most comprehensive scheme on the subject, but it is the one that is most difficult to replicate. It took thirty years for member states to reach the current level of sophistication that was gradually instilled. The ECMT model copied the majority of the EU elements but coupled the requirements with a strong incentive for the compliant operators—access to international markets, based on the multilateral system of road transport permits. Of all the national rules, the example of China is the most complex and comprehensive, but its success was largely guaranteed by the determination of the authorities and their coherence and consistency in enforcing the rules (World Bank/IRU, 2016). International experience has shown that, when strictly and properly implemented, qualitative regulation of market access leads to more competition, particularly in freight transport markets. Qualitative regulation may include forward-looking requirements for road safety, security, protection of the environment, and so forth. Such qualitative standards are preferable to quantitative restrictions of market access (Kunaka et al., 2013).

Freight access/allocation

International good practices recognize the desirability of standardizing the conditions governing contracting for the international carriage of goods through consignment notes, particularly with respect to the liability of the carrier (World

Bank, 2016b). Formal contracts for trucking create price transparency. Research on international road transport services suggests that quantity-based restrictions are one of the major constraints to reducing costs. Yet, while there is growing attention being paid to the political economy of road transport services, it has tended to be difficult to separate constraints that are founded in interstate agreements from those that are imposed through other means (Kunaka et al., 2013).

In Nepal, a 2011 study by USAID estimated the costs of Transport Entrepreneurs Associations to the country's economy. It concluded that the deadweight losses from their practices, such as truck queuing, could be as high as US$65 million a year. Based on these finding, the national authorities are, with the help of USAID and the World Bank, modernizing the legal framework for trucking within the context of a regional corridor project between Nepal and India. The reform efforts have had to account for the strength of the trucking cartels in Nepal (Kunaka and Carruthers, 2014). In Southern Africa, South Africa and Zimbabwe have a long history of bilateral cooperation in transport, and some transport firms tend to register fleets in both countries. They are the only two in the region that have agreed to allow cabotage, albeit on a reciprocal basis and for a limited time. However, cabotage is not dealt in the bilateral agreement but in each country's domestic legislation (Kunaka et al., 2013).

Reliability of freight access, as guaranteed by longer term freight transport contracts, can imply large cost savings. Rate contracts and spot agreements are the two types of agreements commonly used in the road freight transportation sector in India. Rate contracts are most commonly used by large consignors. According to these contracts, the tariff for freight transport is fixed by the consignor for a contract period (from monthly to a period of a few years), with large consignors typically conducting a reverse auction to enable efficient price discovery. One of the advantages of these formalized agreements is that they allow the transporters to plan the utilization of their vehicles and to economically optimize their route by signing up with other consignors in the destination area to reduce the empty backhaul. In contrast, spot agreements are generally used by small consignors to hire transporters on a per-trip basis. There is no liability of the consignor to provide any business after the trip, and the rates vary dynamically based on the supply and demand of trucks on the route. It has been estimated that if all spot agreements were replaced by rate contracts, the cost per ton-km for a 16t truck would

be reduced by 5-10 percent due to reduction in empty back hauls and by another 5 percent due to reduction in idle time.[73]

Fleet renewal schemes

Many countries have implemented vehicle replacement programs; as a rule, the programs were designed to encourage consumers to trade in (and scrap) their old, inefficient vehicles. In countries where such schemes are needed the most, the ancillary sectors such as banking and insurance are neither well established nor well-functioning. Most fleet renewal programs have been a combination of various measures of different types, such as fiscal incentives, direct financial assistance, facilitated access to credit, and control and enforcement. Specific approaches include the *feebate* mechanism (tax on inefficient technology and rebate on efficient vehicles), vehicle registration fees that encourage the use of more efficient vehicles, and scrapping schemes and buyback programs. In general, the scrapping and buyback programs have covered private cars while the subsidized fleet renewal schemes—trucks and buses. In Turkey, the authorities introduced in 2000, criteria for market access and access to the profession, as well as a mandatory certification of professional competence for individuals operating in the road transport sector. To get an operating license, the transport operator must pay a fee, and part of the fee is earmarked for a scrapping fund. In a first stage, this program concerned vehicles older than 30 years. The owners were paid a small compensation through the scrapping fund and were exempted from paying the amounts owed to the authority in charge of revenue collection. In the first year after the adoption of the measure, roughly 23,500 vehicles were scrapped (World Bank/IRU, 2016). The program in Beijing, China, targeted Euro 0 gasoline vehicles (pre-2000) and Euro 0, 1 and 2 diesel vehicles (pre-2008). Older vehicles were given lower scrappage incentive, and larger vehicles received higher subsidies to make the policy attractive for all types of vehicle owners. In California, the Carl Moyer Program, running from 1998 to 2016, targeted all vehicle types older than a certain model year, including medium and high capacity commercial vehicles. The Program's participants received the scrap value for their old vehicle and were also ensured easy financing options for the purchase of a new vehicle (A.T. Kearney, 2017).

[73] A.T. Kearney. (2017). *Estimation of changes in trucking sector Greenhouse Gases associated with road sector policy and investment interventions*. Final Report (internal report).

Key components of fleet renewal programs have been changed in legislation enabling private operators to access commercial financing for new trucks. Pakistan has some of the lowest trucking rates in the world, partly due to the fact that the majority is owner operated and run as informal businesses. In 2007, there were 209,000 registered trucks, most of which were old, highly fuel inefficient, and poorly maintained. That year, the Government drafted a comprehensive trucking policy to modernize the sector. One of its key provisions included enhancing access to vehicle financing, by designating the sector as an "industry," which under Pakistani law enables firms to borrow from banks at lower than commercial rates. The policy stipulated that the replacement trucks must be no more than four years old and at least Euro 3 compliant. The policy is already having an impact, as a few firms now have fleets of at least fifty trucks and have carved out a new, higher-class market segment. Other complementary measures are also being pursued, including centralizing the registration of motor vehicles and introduction of improved standards for truck manufacture (Kunaka and Carruthers, 2014). Upon pressure from local industry, in 2013 Pakistan introduced an age restriction (not older than 5 years) on import of used commercial vehicles. However, the importation of some used vehicles for a special purpose, such as concrete mixers, remains allowed. In India, non-banking financial companies are an important source of financing fleet renewal for small truck owners and owner operators, offering competitive interest rates. The Reserve Bank of India has further incentivized the banks to offer credit to the transportation sector under the Priority Sector Lending Scheme, where domestic commercial banks and foreign banks with more than 20 branches must provide 40 percent of their Adjusted Net Bank Credit or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher, to the priority sectors. One of the priority sectors is micro, small, and medium enterprises (MSME), which transporters with less than ten vehicles fall under as per the MSMED Act of 2006 (A.T. Kearney, 2017).

Country experience also shows that it is important to maintain some flexibility in the fleet renewal programs to better accommodate the market conditions. In Morocco, the Government took a holistic approach to reforming the road transport industry that started with the adoption of a comprehensive law[74] which entered into force in 2003. Fleet renewal schemes were defined and adjusted every two years to take into account new developments. The first stage (2006-2008) was essentially a buyback scheme. The old vehicles became candidates for scrapping if they (i) were at least 15 years old, (ii) were in working condition for at least 3

[74] *Loi 16/99 sur les Transports*, www.mmmaroc.com/Infospratique/loitransports.pdf

months without interruption in the 12 months preceding the request for scrapping, and (iii) belonged to the owner before the starting date of the program. The scrapping premium was set at between US$4,950 and US$9,350 per vehicle, an amount that the owner was obliged to use for purchasing a new vehicle. This first stage of the scheme was not a success, because the transport operators found the premium too low. The program continued in 2008-2010 with increased premiums at US$9,900-US$14,300 per vehicle, and additional requirements to effectively and completely scrap the old vehicle and to purchase a new vehicle equipped with all the safety features required by the regulations in force and a maximum permissible laden weight of at least 15 tons. This program also allowed transport operators to use premiums for the purchase of articulated vehicles (tractor plus [semi]trailer) or of trailers specialized in the transport of containers, which had to comply with international standards. In 2010, the Government and the private sector signed a programmatic contract for the development of the logistics competitiveness for the period 2010-2015. In this framework, the fleet renewal program continued in 2011-2013, and it covered the fleet for commercial transport and for the rural public transport of passengers—trucks and buses respectively. The scheme was implemented by the Ministry of Transport, which allocated an annual amount of US$19 million from the State budget. The earmarked budget was mainly fed by 50 percent of fines for violations of transport laws (including speeding) and the value of the material from scrapped vehicles. The program continued in 2014-2016 with new adaptations to the development of the market and industry. For the first time, the owners of old vehicles were no longer obliged to use the scrapping premium for the purchase of new vehicles. Within the existing budget, renewal premiums were given priority.

Prohibiting imports of old vehicles is another effective strategy used to promote fleet renewal. In Latin America, the Andean Community Automotive Policy bans imports from other countries of used cars, trucks, and buses. It also bans trade in these vehicles among the member nations (Peru, Bolivia, Colombia and Ecuador). In Jordan, the importation of personal vehicles older than 10 years and of trucks older than 3 years is prohibited. The importation of used vehicles is allowed in the United Arab Emirates if the vehicle conforms with the state standards and its steering wheel has not been modified. The criteria applied to the imports of used vehicles bring once again into debate the "qualitative" versus the "quantitative" conditions for admission. Given proper maintenance, the age of the vehicle is becoming less relevant. Therefore, in countries where small road transport operators struggle to secure financing for the replacement of their obsolete and inefficient fleets, al-

lowing the importation of used vehicles in good technical condition (certified formally) may prove to be a good option (World Bank/IRU, 2016).

Sector deregulation

In West & Central Africa, truckers predominantly join trucking associations knowing that without this membership getting freight would be much more difficult, while in a deregulated environment such membership is less important since sales depend on the professionalism of a company and not on being part of the existing system of cartels (Terevaninthorn and Raballand, 2009). Until 1989, the trucking industry in Mexico was highly regulated, as regulation was deemed essential for promoting fair pricing, preventing dangerous cost-cutting competition, and providing quality trucking services to traders. In practice, regulation restricted trucking sector competition. The industry was gradually deregulated in the late 1980s, just before the signing of the North American Free Trade Agreement, allowing shippers and traders to contract directly with trucking service providers. Specifically, the deregulation eliminated the obligation for trucking firms to belong to central cargo stations and the structure of regular services by route, specialized by product, and mandatory rates, so that after the deregulation then became determined by supply and demand. It also eliminated the state and regional committees as well as the federal technical committees of road freight transport that had granted permissions for trucking services since 1977. In addition, the trucking companies working without concessions or permissions were regularized and became permit holders.

The Mexican Government feared that in the absence of competition, deregulation would result in sharp increases in transport rates; it therefore chose to deregulate the trucking industry in three stages to allow time for competition to develop. First, it negotiated in 1989 a pact with the trucking association CANACAR under which truckers agreed to cooperate in the deregulation and modernization of the trucking fleets. The Government, in turn, offered, through CANACAR, loans at preferential rates for truckers to renew their fleets. Next, it issued a decree eliminating the notion that trucking operations would require a concession. Finally, in 1990, it issued a decree abandoning tariff ceilings, allowing truckers to set their own rates freely (World Bank/IRU, 2016). Within a few months of the deregulation, some 30,000 permits had been issued to new entrants, and within five years, transport prices to end users had dropped by 23 percent in real terms (Terevaninthorn and Raballand, 2009). In France, trucking costs fell by 33 percent

between 1978 and 1998, largely as a result of the deregulation of the trucking industry. Transport infrastructure and declining fuel costs, in contrast, were much less important (Combes and Lafourcade, 2005).

Axle load regulations

Several countries in Eastern and Southern Africa have implemented policies that can be considered good practice in truck overload control. Examples include a progressive strategy for overload control (Namibia), privatization of weighbridge operations (Western Cape, South Africa), self-regulation of overload control (South Africa), and cross-border overload control systems (at the Botswana/South Africa border Martin's Drift/ Groblersbrug).

The overload control strategy in Namibia followed the *regional* weighbridge program of the Southern African Development Community. At the time, only three axle weighbridge scales were available for overload control. A strategy on overload control was thus developed recommending measures such as (i) introducing weighbridge facilities at strategic locations on the network, (ii) establishing a cadre of personnel dedicated to overload control, (iii) involving the private sector in maintaining the efficiency and effectiveness of overload control, (iv) introducing overload fees that fully recover the cost of damage of the road pavement, and (v) consulting stakeholders at all stages, in particular, interacting with personnel involved in the judicial system regarding the implications of overloading. The criteria for the selection of weighbridge sites on the road network included the level of heavy vehicle traffic and, for cross-border traffic, the availability of weighing facilities across the border. Because of the different levels of traffic, two classes of weighbridge facilities were adopted: Class A for sites with high daily heavy vehicle traffic and Class B for relatively low daily traffic with provision for upgrading to Class A when traffic justifies. The overload control operations are financed by the Road Fund Administration through the Roads Authority budget. The fines collected from overloading offences are paid to the State account thereafter collected by the Road Fund administration. The Road Authority conducts regular meetings and workshops to educate operators and drivers, and sensitizes magistrates and prosecutors on the effects of overloading. An Overload Control Technical Committee was recently established consisting of representatives from the Ministry of Justice and Attorney General, the Road Authority, the Ministry of Works, Transport and Communication, and the Ministry of Trade and Industry. Its man-

date is to formulate weighbridge guidelines and deliberate on technical and legal issues related to overloading.[75]

The National Overload Control Strategy of the South African Department of Transport, based on *industry self-regulation*, recognizes that the ability to monitor vehicle loads at origin and/or destination based on operator-supplied data is very attractive, strategic and feasible. The strategy was based on the example of Australia's National Heavy Vehicle Accreditation, whose aim was to increase the responsibility of the transport operator and/or consignor/consignee for loading vehicles correctly. In South Africa, the self-regulation initiative originated in the timber industry in 2002. However, to realize its full impact, it became important to obtain buy-in from other industries. The project in the timber industry therefore resulted in a national pilot project, initially funded by the Department of Trade and Industry and Forestry. Consignees/consignors are also actively involved in the project and are represented on the project steering committee together with representatives from the Department of Transport, the South African National Roads Agency and the Road Freight Association, including transport operators. Because the system is a self-regulation scheme and thereby non-mandatory (same as in Australia), incentives needed to be adopted to encourage operators to participate. One such incentive is the principle of "weigh-less", i.e. limiting the weighing of accredited operators' vehicles to spot checks, preferably when the weighbridge is not busy. These operators have already benefited from reduced delays at provincial weighbridges and roadside checks. The regulative authorities also benefit by being able to focus their law enforcement efforts on non-compliant operators. Since vehicle monitoring commenced in November 2002, the incidence of prosecutable vehicle overloading (greater than 5 percent) in the timber industry has declined by between 40 percent and 45 percent, and the average overload per vehicle has declined by 14 percent (Pinard, 2011).

Harmonization of axle weight limits and compliance is growing on the Northern Corridor in East Africa, mostly as a result of private sector pressure. As the private sector in the East African Community has developed, supply chain management has become increasingly important, especially with manufacturers and importers in the consumer retail sector who seek to ensure full stocks in their disbursed networks of stores. Likewise, as transport volumes grow, most leading trucking com-

[75] Pinard, M. I. (2011). *Emerging Good Practice in Overload Control in Eastern and Southern Africa: Selected Case Studies.* SSATP Discussion Paper No. 12. Africa Transport Policy Program. Washington, D.C.

panies have started to increasingly focus on fleet volume rather than truck volume, and therefore view the system of roadblocks and weighbridges as a constraint on the amount of cargo they could carry. Thus, over the past few years, private sector demand for more efficient transport on the corridor has intensified, and EAC leaders have taken significant steps to remove roadblocks and weighbridges and implement more efficient administrative procedures. These efforts have resulted in reduced transit time from Mombasa to Kampala (from 18 to 4 days); axle load limits have been standardized in the EAC; partial implementation of the Single Customs Territory is beginning to occur, and there is increasing power of trade associations to influence policy design and implementation.[76] This story has also a technological aspect; in the past, weighbridges were a choke point for everyone, and incentives for compliant loading were absent. With weigh-in-motion, compliant trucks are no longer stopped, and effectively move much faster than overloaded trucks. In practice, compliant trucks make many more annual round trips than overloaded trucks, and the financial incentives are aligned with compliance.

Comprehensive data and its strategic use can also help design and enforce axle-load standards. The example of the Northern Corridor Transport Observatory, in which a weekly dashboard of indicators is given high level of attention, shows that using data to draw the attention of high level decision makers is an effective means to gather political will for solving challenges faced by corridors. The program was also successful in attracting private sector participation in the adoption of the Axle Load Control Charter in Kenya (SSATP, 2015).

[76] Brenton, P. and B. Hoffman. (2016). *Political Economy of Regional Integration in Sub-Saharan Africa*. World Bank, Washington, D.C.

Lessons for a Successful Reform Implementation

There are no ready solutions applicable across all countries in a homogeneous way, as countries have unique histories, traditions, culture, socioeconomic structures and interests that impact the nature and viability of any reforms. In general, experience of countries outside the West & Central Africa region shows that quantitative restrictions in the trucking sector can generate corruption. In developing countries with significant risk of corruption, the legal framework must be simple and clear to remove the room for discretion (World Bank/IRU, 2016). Aside from the formal regulatory framework and institutions, informal practices can either support or obstruct formal institutions, and reforms are likely to stand more chance when conceived in ways where the formal rules of the game are reinforced – or not overly hindered – by informal institutions.

What institutional mechanisms are needed to implement reforms?

Institutional coordination and the presence of a strong champion for reforms within the government are both needed for ensuring reform success. In Ghana, the first country to implement the WAEMU axle load regulations, the Ministry of Roads and Highways chairs the country's Axle Load Steering Committee to plan, implement and monitor the reforms. At the start, implementation presented problems, such as an axle weight-related congestion crisis for Burkinabe truckers at the Port of Tema. A visit from the Burkinabe Minister of Transport to his Ghanaian counterpart in 2009 provided solutions—bringing in mobile weighbridges and establishing procedures for gradually introducing reform, an evolving combination of fines, compulsory unloading and temporarily increased weight limits. Importantly, the visit also resulted in the creation of a focal group by the Ghanaian Minister of Roads and Highways, reporting to the steering committee, to actively facilitate the smooth implementation of axle weight controls. The Ghanaian focal group has a troubleshooting and facilitation role, while the Axle Load Steering Committee fulfils the monitoring and reporting role. The focal group operates informally, meeting to solve problems as they arise. Its aim is to help two key agencies – the Ghana Highway Authority and the Ghana Ports and Harbours Authority – communicate with each other, with truckers and other involved organizations to solve problems arising on the transit corridor from Tema to the border

with Burkina Faso. The focal group comprises senior officers from both agencies, as well as from the National Security Council and the Burkinabe Shippers Council (West Africa Trade Hub, 2010).

In the East African Community, border waiting times have fallen substantially over the past few years, largely due to efforts towards the establishment of institutional arrangements for addressing the border crossing issues, in which country governments worked with the private sector while receiving assistance from development partners such as USAID, TradeMark East Africa (TMEA) and the World Bank.[77] Border crossing times have decreased the most at Malaba, by far the busiest border crossing in the region, between Kenya and Uganda. For many years, the border post had been in a sub-optimal equilibrium, whereby rising trade volumes led to a proliferation of agencies at the border performing a range of regulatory functions and receiving side-payments for quicker processing at the same time as the border crossing times became slower and slower. The rising trade volumes caused affected private sector firms to view the procedures at the border as an increasing burden. In 2009, relevant government agencies and trade associations, with the assistance of development partners, began to develop a platform for reducing this congestion. Importantly, development partners did not attempt to provide a solution to the problem, but assisted in coordinating the relevant entities to help them design their own solutions. Government and private sector representatives held joint meetings to explain the various problems at the border from their perspectives. This strategy ensured that ownership would come from the participants, and would allow them to address the issues they see as most relevant. A finding that emerged from the discussions was that, from the private sector perspective, the key issue was not the number of procedures or the various fees and facilitation payments, but the time to cross the border. Thus, they were amenable solutions that would permit faster crossing times. Strong private sector support for the program was critical as it was willing to place pressure on their governments to go along with the proposal and jointly develop a plan. The groups came to a voluntary agreement, rather than push for official recognition in order not to lose momentum. As a result of the changes introduced, crossing times at the border dropped from 24 hours in 2011 to less than 4 hours in 2012, and the corridor now

[77] Brenton, P. and H. Hoffman. (2016). *Political Economy of regional Integration in Sub-Saharan Africa*. World Bank Group, Washington, D.C.

saves over US$69 million per year.[78] Similarly, the removal of roadblocks and weighbridges along the major roads in Kenya, was mostly an outcome of the joint initiative of several private sector actors – a range of shippers and importers associations, the Shippers' Council of East Africa, the Kenya Private Sector Alliance, and the East Africa Business Council – engaged in a sustained lobbying effort to improve the performance of the transport sector (Brenton and Hoffman, 2016).

How should reform process be communicated to gain traction?

The main avenues for building traction for change are coalition-building, communication campaigns, and generally intensified work with stakeholders, especially those who can exercise demand for progressive change (Fritz et al., 2009). The hope is that these focal points of change, once identified, will begin to actively communicate the benefits of collective action with other stakeholders. In parallel to the launch of an active push for specific reforms by the champion(s) of change, it is necessary to continue accumulating evidence that will deepen the rationale for broadening the coalition for reform (Brenton and Hoffman, 2016). Recognizing the governance constraints and political incentives under which ruling elites operate will also help understand when reforms are undertaken to meaningfully achieve success, or when governments are merely "signaling" their adherence by mimicking best practices, but without truly owning the change process.[79]

Communicating the benefits to be gained from specific reforms is paramount to gaining support for their implementation. At present, there is a lack of enthusiasm towards the disjointed TRIE guarantee among the Senegalese and Malian transport operators, although all the tools allowing the approval are in place, due to a lack of knowledge regarding this mechanism and lack of awareness of its benefits. The National Accreditation Committees lack resources to cope with all that is expected of them in terms of awareness and information about their activities (GIZ, 2016b). All actors involved in the implementation of the TRIE must be driven by the same concern for improving the competitiveness of the corridor in relation to competing corridors, and to this end the major common interests of the two countries

[78] Fitzmaurice, M. and O. Hartmann. (2013). *Border Crossing Monitoring along the Northern Corridor*. SSATP Working Paper No. 96. Africa Transport Policy Program, Washington.

[79] Pritchett, L., M. Woolcock, and M. Andrews. (2012).*Looking Like a State: Techniques of Persistent Failure in State Capability for Implementation*, Journal of Development Studies, 49(1): 1-18.

must be highlighted. Successful reform will be a win-win outcome, and the approach needs to ensure that it is communicated at all stages of the process and involves professional associations, to ensure that the industry adheres to the future rules (World Bank/IRU, 2016). Specific targets and deadlines are best developed through stakeholder consensus with the champion of change taking the lead, as differences in perception are key influences on policy outcomes (Brenton and Hoffman, 2016).

A comprehensive mapping of actors that should be involved in or will be affected by a specific reform and their consultation are an essential first step. A 2015-2016 initiative conducted by GIZ implemented a survey of the main actors on the Senegalese side involved on the Dakar-Bamako corridor to identify existing committees and frameworks. In the second stage, the documents collected during the various committees were analyzed to retain a list of actors who should be involved when discussing the corridor issues (see GIZ, 2016c). This list of key stakeholders will be an important reference for the World Bank's engagement with Senegal and Mali on the identified reform priorities. Similarly, as part of the regional DPO in Burkina Faso and Côte d'Ivoire, the two Governments organized extensive consultations regarding the design and implementation of the proposed reforms. Both public and private stakeholders from both countries were consulted, including representative of the trucking industry and unions (World Bank, 2016b).

How losers from reforms be compensated?

Reforms should include mechanisms to mitigate the impact on informal sector truckers and others who are likely to lose, such as by compensating those bearing the greatest loss and providing job retraining (Nathan Associates, 2012). Usually new rules apply immediately to new entrants, but for existing operators particular attention has to be paid to defining transitional periods for full compliance. Too short a transition period will not allow the integration of the vast majority of existing companies, while a long transition period will lessen the benefits of the reform (World Bank/IRU, 2016). The Poverty and Social Impact Assessment for the regional DPO (World Bank, 2015a) suggested the following mitigation measures for negatively affected stakeholder groups.

- Measures to facilitate access to finance for fleet renewal for a wide range of truckers and companies

- Provision of "grandfather" clauses to permit a natural attrition of older truckers over time
- (Self) organization of small and artisanal operators into cooperatives to attain economies of scale, potentially enabling them to share costs and assets to attain a greater degree of professionalization, and
- Training to allow transition of some small/informal operators to other activities based on their existing skill levels or asset endowment—such as to passenger transport or trade in trucking-related merchandise business.

In Côte d'Ivoire, the Ministry of Transport has already launched initiatives to support the groups that will bear the biggest losses from the ongoing reforms, for instance, by training several hundred drivers and helping them form cooperatives. Envisaged vehicle scrappage schemes could provide start-up capital for these other activities and could also provide resources for older truckers exiting the industry. For operators able to comply with the new regulatory framework, accompanying measures would include support to acquiring new trucks, promotion of small operator groupings, and training and capacity building. The design of this program was informed by the experience of the World Bank in supporting the modernization of the transport sector and manage social consequences in similar contexts, such as the successful case of urban transport modernization in Senegal (World Bank, 2016b).

Relevance of specific World Bank instruments in future sector reform

The provision of adequate financial resources to participating countries, in addition to necessary technical assistance and capacity building efforts, are important for facilitating the necessary adjustment sought through reforms. Therefore, it is likely that a full range of financing instruments will be needed to ensure that reforms are not only designed well but have the necessary financial and technical means behind them to have a chance at success. Also according to the surveyed Bank staff, a DPO or a PforR (Program-for-Results[80]), possibly accompanied by some technical assistance or Investment Project Financing, would be the appropri-

[80] The Program-for-Results financing instrument was introduced in 2012. The tool complements the other two instruments, Development Policy Financing (DPF) and Investment Project Financing (IPF) used by the World Bank to help enhance its impact. www.worldbank.org/en/programs/program-for-results-financing

ate combination of tools for making progress on the needed reforms. In other words, incentives should be combined with hands-on support.

- Incentives to *pass* reforms (DPO, PforR or IPF): development of legal and regulatory frameworks for transport, rewarding virtuous practices and punishing violations, professionalization (transport contracts, formalization of roles to eliminate predatory intermediaries), and
- Technical assistance to successfully *implement* reforms (IDA or Trust Funds): transport and trade facilitation, training of operators, capacity building of public agencies.

Above all, there is a need for inclusive policy dialogue to build coalitions and consensus. If the bar of a given reform initiative is set too high, the risk of rejection and non-compliance by existing operators is high, too. Instead, if the bar is set too low, the reform program will not be credible and will fail to address the existing inefficiencies. A preferred solution would be a long-term commitment, possibly using the financing instrument PforR or some technical assistance, which would allow raising the bar gradually over time. The advantages of such an approach are that it would be less painful and would give time for the operators to adjust. The risk of opposition to reforms gradually implemented would likely be lower. Of course, a gradual approach would require maintaining the spirit of the reform for several years and assessing progress continuously to determine where the bar should be set.

Lessons learned from designing the first Regional DPO

Sound analytical inputs, flexibility, and buy-in from a wide range of stakeholders were possibly the most important aspects of the design of the regional DPO. Transport reforms in Burkina Faso and in Côte d'Ivoire were being planned at a time of some political uncertainty in both countries. Despite strong presidential support, there were doubts about commitment to reform at levels below the two Presidents. Questions were being raised in the media and elsewhere over the nature or quality of the measures that have been taken so far, hinting that there may be serious unresolved issues in terms of building effective public-private sector coalitions behind the reforms. A PSIA of the planned sectoral reforms in Côte d'Ivoire and Burkina Faso was implemented in 2014-2015, based on interviews with state and non-state actors involved in or affected by the two interrelated sets of reform measures: those related to making transit more effective along the Abidjan-Ouagadougou corridor, and those related to broader reforms of the freight

transport sector in both countries. The analysis suggested that, given the influence of externalities in the trade and transport sectors, numerous unforeseen opportunities and obstacles for reformers and their supporters would arise over the course of the reform and DPO period. In turn, this required that the regional DPO incorporate adaptability mechanisms and learning loops, facilitate problem-solving and coalition-building behind reform ownership, and that the policy dialogue process and reform agenda adapt to a perhaps frequently changing incentive environment.

Explicit recognition of the need to embrace gradualism and an iterative approach to learning in the reform process helped steer clear of overly technocratic and unrealistic scenarios. Without a doubt, there were strong incentives at work in maintaining the status quo, such as for truckers to continue violating axle load limits and for security forces to accept bribes. These incentives, in turn, meant that a more gradual approach to reform might be preferable. Such approach was expected to help build on what works while strengthening public sector capabilities for reform implementation and broadening private sector support over time.

The corridor-based approach had a particular appeal as it helped stakeholders identify, diagnose and discuss, as well as pool resources and partnerships behind the core components of a fairly narrowly defined corridor transit system. It facilitated inter-governmental policy dialogue and intra-departmental coordination, including budgetary planning. By framing reforms around a bilateral program, the aim was to help lock in key state actors (especially the ministries of finance, transport and internal affairs) in multi-faceted reform dynamics that require both domestic and bilateral cooperation. The design of the RTFCC series was informed by lessons learned from previous operations in the transport sector in West Africa. Transport and trade facilitation are multifaceted and politically complex issues that require addressing reforms in complementary areas and ensuring strong coordination at the national and regional level. The RTFCC considered this by (i) adopting a corridor approach and coordinating transport and Customs-related reforms, and by (ii) offering a framework for dialogue and coordination between public and private stakeholders within each of the two countries and between them. The structuring of the DPO recognized that adjustment is needed in the instances where different regulatory implementation strategies can be used to reach the reform objectives. For instance, there are several ways in which support to fleet renewal can be provided, depending on characteristics of the market. Other examples include sanction strategies related to axle load limit violations and professional capacity building strategies for transport operators (World Bank, 2016b).

The proposed reform areas and reform clusters had to simultaneously consider three implementation concerns: (i) an appropriate regulatory environment and greater enforcement, (ii) support for regulatory compliance, and (iii) measures to improve market efficiency. A strengthened regulatory environment and greater regulatory enforcement could only genuinely work if accompanied by support for regulatory compliance. Therefore, in parallel to the DPO, the World Bank prepared two technical assistance operations to support the implementation of the reforms adopted under the RTFCC series in each country. The combination of budget support together with technical assistance has proven to be effective in the region and elsewhere, when the implementation of the reforms requires behavioral change and improved technical capacity. To build consensus about the reforms, the government team in each country was strengthened by incorporating focal points and committees for transport and Customs. These focal points were responsible for ensuring appropriate monitoring of reform implementation in their respective sector, under the overall leadership of the ministry of finance. To further mitigate the risk of insufficient technical capacity within the two Governments, the project ensured that they could leverage ongoing technical assistance programs, similar to the technical assistance provided by the EU to the Ivorian Ministry of Transport and the assistance on Customs provided by AFRITAC West in both countries.

The need for long-term reform benefits to more than compensate for the shorter-term losses highlighted the importance of (i) accompanying support measures to enable actors to adapt to the new framework (e.g. facilitate the professionalization of informal truckers) and (ii) a solid communication strategy to ensure that the reform program is perceived as coherent and as benefitting the majority. Moreover, the overall risk that reforms will not be implemented was addressed by specific features of the DPO design, namely (a) the limitation of the first RTFCC phase to a two-year program, (b) the establishment of an effective joint mechanism for the two countries to monitor reforms, and (c) regular consultations with the authorities on all aspects of the operation (World Bank, 2016b).

Lessons learned from Investment Project Financing and Technical Assistance

Linking financial investment to reform outcomes may be an effective and necessary measure to ensure overall results. For example, in the case of the *West Africa Transport and Transit Facilitation Project*, approved in 2008 and covering Ghana, Burkina Faso, and Mali, the project design could have been improved even further by making the disbursement of World Bank funds conditional on the implementa-

tion and operationalization of the more painful reform components. While adequate policies in favor of regional integration as well as the related legislation and regulatory frameworks were well established under the WAEMU/ECOWAS, the lack of political commitment to drive the regional integration agenda hindered their operationalization (World Bank, 2015b).

To mitigate the risk of putting many truckers out of business, the *Togo Logistics Effectiveness Project* is also placing strong emphasis on capacity building and re-skilling for this group (World Bank, 2017b). The project will also fund a de-risking facility to help renew the country's truck fleet. Under the scheme, IDA financing will be used for a guarantee fund to share the risk with potential financiers and will fund the provision of additional capacity to the Ministry of Transport to enforce mandatory periodic mechanical inspections and scrappage of retired trucks. Throughout the project, key ministries, private sector associations and other key stakeholders will be provided with training and technical assistance to ensure that the necessary knowledge and technical expertise are transferred. The critical importance of capacity building and development of expertise of the beneficiaries was also one of the main lessons from the *SSATP TFF Corridor Focused Facilitation Program* (2015).

The Togo Logistics Project reflects the lesson learned from previous World Bank projects that it is preferable to keep its objectives and design simple while ensuring strong country ownership. The project objective and design were purposefully made simple considering the inherent complexity of trade facilitation operations and the large number of stakeholders involved. It chose the counterparts carefully to ensure strong ownership through consultation but also effective execution. The Ministry of Planning is in charge of coordinating among the implementing institutions, while oversight provided by the President's Office is intended to send a strong signal regarding the strategic importance of the project. This arrangement was also used for implementing the ALTTFP.[81] Finally, the Togo project also made the point to ensure broad-based support during project preparation, including through the implementation of a trucking survey about the challenges faced by Togolese truckers.

[81] Nevertheless, country ownership of individual reforms was not as strong as desired. For example, in the Benin component of the ALTTFP, the country commitment to the modernization of Customs was limited, partly due to the frequent rotation of staff in Customs management who thus could not own the project and engage in deeper reforms (World Bank, 2017d).

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