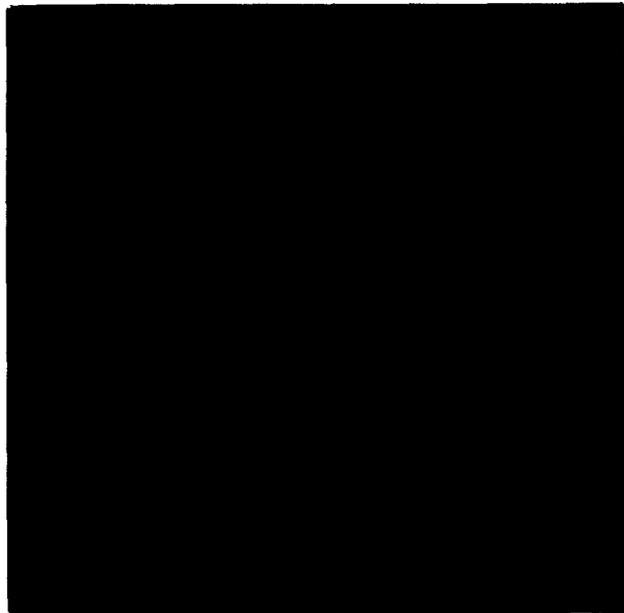


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**TRANSPORT IN WEST AFRICA
TRUCKING EFFICIENCY IN WEST
AFRICA'S CENTRAL CORRIDOR**

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Executive summary

West Africa's multiplicity of small economies is moving towards integration. Links between them depend on an efficient road-transport sector because lorries carry the majority of goods between these countries. Without fast, low-cost road-transport, the efforts invested in promoting harmonised trade policies will fail to reap their large potential benefits. This study considers trucking efficiency in and between four countries in West Africa's "central corridor" – Côte d'Ivoire and Ghana on the coast, and the landlocked countries of Burkina Faso and Mali.

In most measurable ways, West African trucking operates less efficiently than trucking in other parts of the world. Firstly, its raw materials – lorries, tyres, spare parts and fuel – all cost more than elsewhere. The absence of regional manufacture of these essential factors and the consequent need to import them contribute to their high cost, so too do high taxes imposed on imports. For these reasons, West African truckers almost always import used lorries. Secondly, law-enforcement agents demand bribes at control points. Disputing their demands leads to delays that can be even more costly to efficiency. Thirdly, the lorries cover short distances over the course of the year – less than half the distance covered in other parts of the developing world, on average. Moreover, for perhaps a quarter of this modest distance, they run empty. These two factors result in low revenue from which to cover fixed costs, and low profits. Fourthly, a vicious circle begins as truckers tend to overload their vehicles when they find freight in an attempt to raise the annual payload. This damages their vehicles, makes them more likely to break down en route, and causes accidents. Potentially dangerous overloaded lorries make truckers easier prey for predatory bribe-seeking law-enforcement agents. It also accelerates the degradation of the relatively few international tarred roads in the region. Fifthly, as profitability falls, few truckers leave the sector for other professions because of the prestige associated with truck ownership. Thus at least some truckers offer their services at rates that do not cover their amortisation costs – they operate at less than cost price. These truckers tend to keep going by drawing down their trucking capital and by obtaining a minimum of business through union-run order-of-arrival queuing systems. In this way, West African trucking can be both highly competitive (with many individually-owned lorries) and very expensive (because of a series of inefficiencies).

Two regional (ECOWAS) treaties govern road haulage between adjacent pairs of countries (TIE) and – for freight originating outside the region – through a third country (TRIE). TIE covers approved routes for international trucking, maximum axleweights and other technical characteristics, and standardised regional vehicle documentation (including insurance). TRIE deals with the allocation of freight between lorries registered in the (coastal) country being transitted and the (Sahelian) country of destination, common documentation for transit freight, the ability of the vehicle to be sealed to guarantee that the freight leaves the intermediate country (in which it is not taxed), and a single regional surety system to cover the risk that it might not. ECOWAS member states – including all four of the countries under study – have signed and ratified these treaties but most honour them largely in the breach. In practice, customs and other officials use some aspects of these treaties – such as requirements the lorries should be sealed – to extract bribes and delay traffic. They apply

parts of TIE constraints on approved routes to TRIE conditions. In other areas, they introduce requirements completely outside the treaties, e.g. the requirement for a *vignette touristique* for Sahelian-registered lorries in northern Côte d'Ivoire. Facilitative elements of the treaties – such as the insurance provisions – do not function regionally as the legislation required. Countries have put in place their own provisions. However, a recently-introduced single shipping document, the “Inter-states Way-bill”, using the same format for all central-corridor countries now carries all information needed by the CBC, the forwarding agent, the Customs Service and the transporters. Further measures of this sort must be put in place.

Burkina Faso, Côte d'Ivoire and Mali belong not only to ECOWAS but also to UEMOA, whose members share a common currency and are introducing a common external tariff. UEMOA is currently reviewing TIE and TRIE, in the hope of revising them to make help, rather than hinder, trade and allowing its members to capture more of the benefits from the common market toward which they are moving. To the extent that such a revision produces practical improvements and does not provide difficulties for trade with non-UEMOA members of ECOWAS, such as Ghana, this is to be strongly encouraged.

Governments, shippers' organisations and truckers' unions do not act to promote efficient trucking. Governments allow their uniformed forces to harass truckers and delay lorries en route. In Burkina Faso and Mali, they also play a large role in monopolistic parastatal companies that dominate the allocation of freight to the coast, arguably at rates that do not cover trucking costs. National organisations provide a range of services at ports for shippers from Burkina Faso, Côte d'Ivoire and Mali. Each has weaknesses: charging for services whether the shipper wants them or not (Burkina Faso), corrupt allocation of freight to lorries (Mali) and irrelevant activities in order to raise funds (Côte d'Ivoire). With the notable exception of Ghana, the funding of truckers' unions depends on a legal monopoly that allows the right to impose fees on all truckers (Burkina Faso) or access to a share of the revenue from government-approved fees. This leaves them too close to government to act truly independently in response to the wishes of their grass-roots constituency. Each of these structural problems requires institutional change.

For their part, the truckers in the three Francophone countries are typically small-scale informal businessmen who own a single truck, dabble in various other economic activities, keep no written accounts to enable them to separate the expenses and receipts attributable to trucking from those imputable to other activities, and are illiterate. They tend not to have common cause with other truckers with whom they compete. The independent mentality of the small-time trucker is often underlined. They deserve unions that respond to their needs and provide training for them to evolve towards the formal sector.

Government taxation on the road-haulage sector is, in general, high. Direct taxation on imported inputs accounts for the majority. It varies from 0 to 80 percent *ad valorem*, with a mean just under 50 percent. With one exception, all countries tax all inputs to trucking. Ghana has recently eliminated all import taxes on vehicles and, simultaneously, banned imports of vehicles over ten years-old. This policy will tend to lower the age and – one would hope – increase the quality and safety of the national fleet. Ghana retains taxes on

tyres, spare parts and fuel, which vary with the benefits of the use of the national road network, rather than vehicle ownership *per se*. Other central-corridor countries should follow this example which, of course, has implications for government receipts

However, as UEMOA members, the other three countries have committed themselves to introduce a common tariff with respect to goods imported from non-UEMOA countries. This tariff does not represent all import taxes (which include other elements) but, by 1st January 2000, will have dropped to no more than 20 percent *ad valorem*, significantly lower than rates in force in 1998. This will reduce the tax burden on trucking.

Some observers have suggested that, in order to counter high costs of imported inputs, truckers should pool their resources to make bulk buys of any or all of them. However, Ghanaian experience shows that this policy may lead to diseconomies of scale due to bank charges and storage costs. In general, the independent – if not suspicious – character of the independent trucker, who might most benefit from such a scheme, is such that he is unlikely to be enthusiastic about it without becoming more professional.

Most observers believe that the combination of delays and corruption associated with the region's ports, roadblocks and frontier posts is the greatest impediment to an efficient regional trucking system. The delays contribute to reduced annual mileages, the corruption directly increases costs. Each trucker finds his own equilibrium between the frying pan and the fire, according to the rate at which he values how his lorry's time is spent. Those with more productive rigs and those who own their own lorries are more likely to pay higher bribes in order to benefit from higher mileages.

Bribery by uniformed officers goes right to the top. In Burkina Faso and Côte d'Ivoire, private companies offer an accelerated clearance service that speeds southbound lorries carrying perishable commodities through a set of roadblocks at a cost less than the sum of the bribes that the individual trucker would normally pay. The companies can only offer this service because they contract with high-ranking officers in the police, *douane* and/or gendarmerie (the so-called "PDG") to allow this to happen. The high-ranking officers thus receive a larger share of the spoils of corruption. Any anti-corruption measures must therefore also go right to the top.

On northbound trips, Ivoirien customs officials require a "customs escort" for goods bound for a destination in a Sahelian country. A customs officer physically accompanies the lorry from the port to the border post at which it leaves the country. This non-TRIE requirement introduces extra bureaucracy, delays and payments to the Customs Service. The service also requires non-TRIE documentation and surety. The customs escort particularly applies to cargoes of Ivoirien agricultural and horticultural produce that require aeration to prevent spoilage and which therefore cannot be sealed within closed lorries. Ivoirien traders have proposed an alternative solution – the *grille plombe* – consisting of an open metal grill on top of an open lorry and through loops in which a cable can be passed and then sealed by customs officers. There probably exist enough open-topped lorries that could be converted to accept such a system to make it practicable.

Agents of the Burkinabe Customs service will soon be able to enter details of cargoes arriving at each border crossing into a computerised information system, allowing the service to track them to their destinations. This would allow a transit shipment to be followed on its path across the country and the likelihood of illicit unloading of cargo to be estimated as a function of unusual delays, reducing or eliminating the need for customs escorts for northbound freight and for *societes de convoyage*, a similar distortion for perishable commodities – including livestock – in the southbound direction. Instead of customs escorts, a limited number of mobile squads of PDG agents – perhaps three of each – could perform spot checks anywhere in the country. Such systems should be embraced by – and linked together between – all four countries.

To the limited extent that PDG control posts along major roads can be justified they should be consolidated to allow swift verification of compliance for all three services at one point and then free passage over long distances. However, they should be limited to fewer locations than at present. At borders, posts should be consolidated not only over PDG services but also between countries, so that a single checkpoint allows two consecutive checks by joint teams of customs officers and by joint teams of both police and (where applicable) gendarmes. UEMOA countries claim to be working towards twinned border checks but the details of how they would work have not been finalised.

At the same time as PDG services ease off on controls on road haulage they should clamp down on highway robbery which, particularly in Côte d'Ivoire, limits travel at night in certain parts of the country.

At the ports of Vridi (Abidjan) and Tema (Accra) hundreds of lorries wait for freight. The number of lorries standing idle represents an overcapacity that delays at the port cannot explain. Ultimately there are more trucks than cargo. Individual trucker's strategies for minimising their waits are part of a larger zero-sum game. Bribes paid to shippers' organisations or truckers' unions merely increase the cost of trucking and redistribute the delay between lorries. To the extent that these organisations allocate freight to lorries without considerations of bribes but in strict order of arrival at the port, they treat reliable, well-maintained lorries on the same footing as unreliable lorries prone to breakdowns and thus help keep on the road lorries that should be consigned to the scrap heap. Once allocated freight, lorries may suffer delays before leaving the port that are comparable to delays en route. Customs officers and/or port security officers may decide to re-inspect the cargo before releasing it unless a bribe is paid. Bribes paid and delays endured at Vridi exceed those at Tema. These should be eliminated. Aware of the sloth inherent in current functioning of the Vridi docks, the Ivoirien Directeur des Transports Terrestres suggests the use of available laser technology to scan loads quickly for hidden contraband. A judicious sampling of the most likely sources of contraband and the use of such technology promises to greatly speed up the current lugubrious process.

Separate from the costs paid and delays experienced at Vridi, it is a threatening environment for non-Ivoirien truckers who wait there in fear of extortion and theft. In order to protect their lorries they do not leave the lorry park. This climate of fear has no direct impact on

trucking efficiency but provides a justification for PDG officers outside Côte d'Ivoire to treat Ivoirien truckers badly

Thus Vridi is a more difficult and a more expensive port, with longer delays than Tema. The Ghanaian government has begun to market Tema as an alternative to Vridi. In 1998 a Burkinabe-Ghanaian head-of-state summit allocated port space there for Burkinabe use and CBC should have opened an office there by the end of 1998. At the same time, the Malian government has begun to implement its policy of diversification of links to ports. It has obtained financing to complete tarred-road links from Sikasso to the Burkinabe border (thus speeding up the link to Tema), as well as to Dakar and to Kankan (and thus to Conakry). Therefore despite its regional pre-eminence, Vridi may be on the verge of experiencing a serious element of competition.

The West African Enterprise Network is starting an *observatoire* that will follow trucking delays and costs (including bribes paid) along major central-corridor roads. It will submit quarterly reports to the heads of the PDG services and transport directors in each country, and also to donors. The system promises to provide PDG heads with detailed information on their agents' roadside activities. The *observatoire* reports should put pressure on them to do clean up areas of abuse and, equally, to reward agents who are clearly doing their jobs well. At the same time as these reports begin to circulate, the heads should begin to require their agents to make public on a quarterly basis the statistics on the lorries they have stopped for more than an hour, the reasons why and the steps taken. In addition, truckers unions and the Chambers of Agriculture and Commerce should receive copies of the *observatoires* reports. Conspicuous praise, promotion and financial rewards for honest work and efforts to stamp out corruption (as reflected in *observatoire* data perceived as unbiased) would change the incentive structure that currently encourages personal gain through graft, as would explicit public condemnation, demotion and even fines or imprisonment of those revealed as prime offenders.

Within the central corridor, the journey from the coast to the Sahel justifies trucking on the north-south axis. Fewer than half lorries carry freight on the less remunerative southbound leg. However, the distribution varies considerably within the corridor. About 30 percent of journeys made by a group of Burkinabe truckers included backhaul cargo. In contrast, about 80 percent of southbound trucks in northern Ghana find such cargo (although none of the southbound Ghanaian lorries seen in Burkina Faso carried any).

Many observers believe that there exists scope for significantly increasing the rate of backhaul freight by providing better information to truckers about the location of available freight and/or to shippers about the availability of empty southbound lorries. However, there are various reasons why this scope may be more limited than imagined. Firstly, some truckers – principally the more formal-sector ones with agents in Abidjan who can quickly find them northbound freight – find that the economics of backhaul freight do not stack up, they prefer to head south as soon as they have unloaded in the Sahel in order to load another northbound load. However, those without such contacts in coastal ports may well find it advantageous to avoid travelling south empty. Secondly, some owners employ their drivers on the basis that the driver can keep whatever profit he makes on backhaul freight, which

increases the driver's to find it. However, not all owner-driver contracts are structured in this way. Thirdly, many lorries in Burkina Faso and Mali are already tied into contracts to haul cotton. At least in the short run, owners of these lorries are unlikely to react strongly to information about the fleeting availability of other freight. Fourthly, some freight – such as that in areas cut off during the rainy season – may be inaccessible even though information about it is available and reliable. However, better information would doubtless improve backhaul rates. CILSS is starting a pilot backhaul-freight information system in Burkina Faso, working through OTRAF. It is clear neither how much a purely national system can rehearse for some of the inherently regional problems that a full-blown system would meet nor whether working with OTRAF will allow the system to meet the most dynamic exponents of vehicle allocation.

Ghana is setting up an autonomous road fund that will raise funds directly without passing through the Treasury and that will spend them on an agenda determined jointly by the public sector and representatives of private-sector road users. It will raise some funds from road tolls, including stiff penalties for overloaded lorries which, for the first time, it will be able to weight, using weighbridges currently under test. Mali should follow suit within a year. Burkina Faso and Côte d'Ivoire are not setting up such funds but should consider doing so in order both to bring private-sector road-users into the decision-making process and to provide direct disincentives to overloading of lorries.

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Acronyms and abbreviations

CBC	Conseil Burkinabe de Chargeurs
CEAO	Communaute Economique de l'Afrique de l'Ouest
CEDEAO	Communaute Economique des Etats de l'Afrique de l'Ouest (ECOWAS)
CGP	Caisse Generale de Perequation (Burkina Faso)
CIF	cost, insurance and freight
CILSS	Comite Permanent Inter-Etats de Lutte contre la Secheresse dans le Sahel
CMEAOC/TM	Conference Ministerielle des Etats de l'Afrique de l'Ouest et du Centre sur les Transports Maritimes
CNC	Commission National de Concertation (Côte d'Ivoire)
COFAMA	Compagnie Maritime du Faso
CSM	Coordination des Syndicats du Mali
DATCITT	Departement de l'Amenagement du Territoire Communautaire, des Infrastructures, des Transports et des Telecommunications (UEMOA)
DCGTx	Direction Centrale des Grands Travaux (Côte d'Ivoire)
ECOWAS	Economic Community of West African States (CEDEAO)
EMACI	Entrepôts Maliens en Côte d'Ivoire
FERAP	Projet Regional de Fluidification des Echanges et de Rapprochement des Politiques Agro-alimentaires (CILSS project)
FODEL	Fonds de Developpement de l'Elevage (Burkinabe livestock export tax)
GPRTU	Ghana Private Road Transport Union
IER	Initiatif d'Entretien Routier (RMI, Banque Mondiale)
INRETS	Institut National de Recherche sur les Transports et leur Securite (France)
km	kilometre (0.62 mile)
LET	Laboratoire d'Economie des Transports (France)
MRT	Ministry of Roads and Transport (Ghana)
OCBM	Organisation Commune Benin-Niger (Cotonou-Parakou railway company, jointly owned by the governments of Benin and Niger)
OTRAF	Organisation des Transporteurs Routiers du Faso
PASEC-T	Programme d'Ajustement Sectoriel – Transport
PDG	<i>police, douane et gendarmes</i> (i.e. the uniformed forces monitoring road transport)
REAO	Reseau de l'Entreprise en Afrique de l'Ouest (West African Enterprise Network)
RMI	Road Maintenance Initiative (SSATP, World Bank)
SIDAM	Societe Ivoirien d'Activites Maritime (??)
SITRASS	Solidarite Internationale sur les Transports et la Recherche en Afrique Sub-Saharienne (part of LET)
SSATP	Sub-Saharan African Transport Program (World Bank)
T	tonne (metric ton = 2,205 lb)
T-km	tonne-kilometre
TEC	Tariff Exterieur Commun (proposed UEMOA common import tariff)
TIE	Transports Routiers Inter-Etats (ECOWAS treaty covering road transport between two adjacent countries)

TRIE	Transit Routier Inter-Etats (ECOWAS treaty covering road transport between two non-adjacent countries through a third country)
UTRAO	Union de Transit de l'Afrique de l'Ouest (??) (WATOU)
VELD	Vehicle Examination and Licencing Department (Ghana)
WAEN	The West African Enterprise Network (Reseau de l'Entreprise en Afrique de l'Ouest)
WALTPS	West Africa Long-term Perspective Study (OECD/Club du Sahel)
WARTU	The West African Road Transporters' Union (Union des Transports Routiers en Afrique de l'Ouest)
WATOU	West African Transit Operators' Union

1 Introduction

1.1 **Efficient road transport as a prerequisite for regional economic integration**

With the exception of Nigeria, individual West African countries have relatively small populations, averaging fewer than 10 million inhabitants. Small populations, combined with low average incomes, mean that their individual economies cannot easily support large-scale industrialisation. Regional economic integration would allow each country to benefit from larger markets for its products. Fair and open competition between producers in the different countries would ensure efficient production and lower prices for consumers throughout the region. However, integrating economies is not a simple matter. Reaping benefits from economies of scale requires that a host of institutional, legal and fiscal systems be dovetailed. There are also practical problems to be solved, not the least of which is ensuring that the regional transport system can mesh the individual economies together, allowing the free movement of goods and people that is essential to commercial unity. The majority of trade between West African states takes place by road, and the efficiency of this mode of transport is therefore of great importance.¹

1.2 **The inefficiency of West African road haulage**

However, West Africa's road-transport system is among the costliest and least efficient in the world. Rizet and Hine (1993) compare the different costs that together determine the cost per tonne-kilometre of long-distance road haulage in (a) Francophone West and Central Africa² and (b) Pakistan, using data from around 1990. Figure 1 breaks down the costs of trucking in these two regions into their component parts. It shows that not only did total cost of operating an articulated lorry³ in Africa exceed that of doing so in Pakistan by a factor of 4.8, but also that each individual element of expenditure cost more in Africa, i.e. the cost ratio for each contributing element exceeded unity. (Multiplying up the contributing ratios at each level produces the ratio at the next higher level.)⁴

¹ Road transport is particularly important for landlocked countries. For example, despite a rail link to Dakar, 82 percent of Mali's international freight travels by road (République du Mali, Ministère des Travaux Publics et des Transports, Direction Nationale des Transports 1998b: 3), the vast majority along the corridor leading to or from Abidjan.

² Data for Cameroon, Côte d'Ivoire and Mali from LET & INRETS (1989) collected in 1988. The Pakistani data date from 1986.

³ The types of articulated vehicle commonly used in Africa differ from those commonly used in Pakistan.

⁴ The *factor price effect* concerns the cost of inputs to trucking. Vehicles and tyres were over thrice as expensive in Africa as in Pakistan, fuel was more than twice as expensive. Taxes were only slightly higher in Pakistan. In calculating the *productivity effect*, Rizet and Hine recalculate African efficiencies using Pakistani prices. They attribute the remaining discrepancies to differences in the efficiency with which factors are used in the two cases. Two factors explain these: the productivity per kilometre (due to the proportion of empty trips) and annual distances travelled (the "factor-consumption effect"). In turn, the factor-consumption effect comprises a part due to the consumption of fixed components per

Figure 1
The relative costs per tonne-kilometre of running an articulated lorry
in Africa and Pakistan

Production cost ratio per T-km Africa/Pakistan 4.8	Factor-price effect 2.86	Tax-rate effect 1.12	
		Effect of prices exclusive of tax 2.55	
	Productivity effect 1.68	Factor consum- ption effect 1.58	Fixed factors 1.31
			Variable factors 1.21
		Productivity effect per km 1.06	

Source: Rizet and Hine (1993: 159-161)

Rizet and Hine note that the results summarised in figure 1 compare different types of articulated lorry because truckers typically use quite different rigs in these different parts of the world. To eliminate this factor they repeat their analysis for a type of vehicle available in both Africa and Pakistan: a Japanese-manufactured, three-axle rigid lorry. Figure 2 displays the results they derive for this comparison in which the relative efficiency of African trucking appears even less favourable: 6.4 times more costly than in Pakistan.

Figure 2
The relative costs per T-km of running a three-axle rigid lorry in Africa and Pakistan

Production cost ratio per T-km Africa/Pakistan 6.4	Factor-price effect 2.22	Tax-rate effect 1.09	
		Effect of prices exclusive of tax 2.04	
	Productivity effect 2.88	Factor consumption effect 1.57	Fixed factors 1.37
			Variable factors 1.15
		Productivity effect per km 1.83	

Source: Rizet and Hine (1993: 161-162)

kilometre travelled (causing a productivity difference due only to annual distances travelled) and another part due to the consumption of variable components, such as fuel and tyres, with distance.

It is difficult to state that one of these comparisons is more valid than the other. The first case compares typical trucking scenarios in Africa and Pakistan, but these differ in the type and capacity of the lorries used. The second case standardises the lorry considered but no longer represents typical long-distance transport in the African case.⁵ Nonetheless, the evidence presented suggests that, around 1990, West African trucking cost no less than four times as much as that in Pakistan. In a more recent survey, Bouf and Rizet (1997: 309) make a similar comparison. Their analysis suggests that West Africa has become relatively less uncompetitive since 1988. They estimate that in 1996 trucking in this region cost only about 2.5 times more in West Africa than in Southeast Asia. However, the two studies make comparisons between different sets of countries, throwing some doubt on the validity of this comparison.⁶

Despite the uncertainties involved in these two studies and the formal difficulties in comparing their results, they paint a consistent picture. Even taking the most optimistic findings, West African road haulage is significantly less efficient than in other parts of the world. This represents a real and important hurdle to economic integration within West Africa.

The two studies discussed above point to the following causes of inefficiency:

- higher costs of inputs to road haulage (vehicles, fuel, spare parts and tyres)
- higher taxation on these inputs
- lower productivity due to fixed capital costs covered on low annual mileages (35,000 km vs 125,000 km in France or over 150,000 km in USA)
- lower productivity due to a higher proportion of empty backhaul trips
- lower productivity due to a higher rate of variable factors per kilometre travelled (generally due to wear and tear from overloading and bad roads)

The remainder of this chapter explains the causes and effects, as well as their interactions.

1.3 A model of road-transport costs

Figure 3 illustrates the causal linkages affecting road-haulage costs in West Africa. Four exogenous influences – shown at the top of figure 3 – raise these costs, relative to elsewhere: delays and bribery, the shortage of backhaul freight, high CIF prices and high taxation. To partially compensate for these high costs, truckers overload their trucks when they obtain cargo. This applies particularly to informal-sector truckers because they tend to view their trucks as status symbols and therefore want to stay in trucking even if it becomes uneconomic.⁷ These same truckers are generally illiterate and do not keep accounts (and

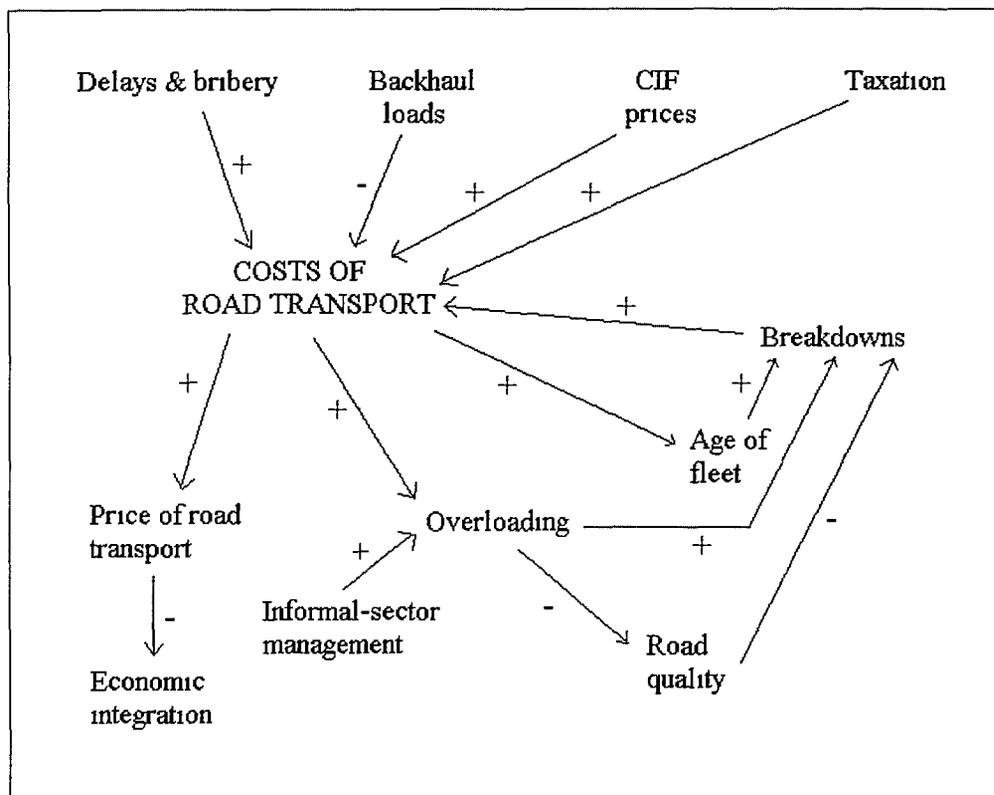
⁵ Truckers tend to use the smaller vehicle considered for the purposes of standardisation for medium, rather than long, distance road haulage.

⁶ Bouf and Rizet make comparisons between Burkina Faso, Cameroon, Côte d'Ivoire, Ghana and the Central African Republic, on the one hand, Vietnam and the Indonesian island of Sulawesi, on the other.

⁷ *In the African context, road transport provides first and foremost a social status. To have a lorry parked in front of the house shows that one has succeeded despite any other problems that one might have. The world of lorry drivers is characterised by a traditional ambition to set up on one's own one day, once they attain that goal, they will do anything to remain owner-drivers, whatever economic reality might suggest. Social*

therefore cannot separate the accounts for their trucking from those from any other economic activities) This means that, even if they might want to find out if their trucking covers its costs, including amortisation, they generally cannot do so Therefore they often do not drop out of trucking to reinvest in some other sector when an "economic actor" would Instead, they continue to compete for cargo, often at a loss⁸ Thus the feedback mechanism that in most markets would link the supply of trucks to the supply of freight, and the is missing The informal sector dominates West African trucking which, in consequence, suffers from a glut of old, poorly-maintained lorries⁹ And, in spite of providing poor service, they offer among the most costly road freight in the world

Figure 3
Model of road transport costs



solidarity will always allow an owner to obtain a loan to repair a broken-down lorry even if it isn't worth repairing (Adoléhoumé 1992: 180-181)

⁸ Adolehoume (1992: 166) estimates that in Togo in the late 1980s heavy-goods lorries did not cover their net costs in 76 percent of trips. The cause was surplus capacity in a competitive market.

⁹ Or, from a slightly different perspective:

The excess supply of trucks is principally linked to the ease of access to the trucking profession and the ease with which truckers can buy used vehicles at low prices (at 15 – 20 percent of the price of a new vehicle). This results in an underuse of the fleet, with long turnaround times and a tendency to overload lorries to make up for empty backhauls (UEMOA, La Commission, DATCITT 1997: 27)

Note the age of the fleet is not affected by the costs of transport *per se* but rather by the relative ease of covering amortisation costs of older vehicles in an environment where delays are relatively acceptable

Three other phenomena also contributed to the current oversupply. Firstly, during past economic booms, particularly during the 1970s and early 1980s, economic operators imported new trucks, which are still on the road. Similarly, food-aid operations to alleviate the effects of Sahelian drought in the 1970s and 1980s meant imports of new vehicles that subsequently found their ways into the ordinary trucking sector¹⁰. And, as part of structural adjustment programmes in all these countries, dissolved parastatals sold off their vehicles to the private sector, particularly over the course of the 1980s.

Secondly, according to Ghanaian informants, most of the imported second-hand lorries arriving in the port of Tema are shipped from Europe by expatriate Ghanaians. They constitute concrete remittances of capital accrued in Europe and North America, rather than an informed understanding of the profitability of West African trucking. These lorries arrive at a port already lined with hundreds of empty trucks waiting for loads. Thus it seems that not only is the prestige phenomenon keeping geriatric trucks on the road but also that it contributes to a continuing inflow of middle-aged ones.

Thirdly, for truckers in Burkina Faso, Côte d'Ivoire and Mali, the effect of the CFA devaluation in January 1994 was to reduce the relative cost of labour and increase the relative cost of the importable component of road transport. Looking at the four economies concerned in 1993, Metzler and Cook (1994: vol 3, 259) estimated the embedded economic components of trucking costs. They found that the composition differed little between countries, as table 1 shows. Labour represented about five percent of the cost of trucking, whereas tradeables accounted for 50 – 60 percent. In addition, the tax on tradeables accounted for another 30 – 40 percent so that, overall, the devaluation increased the CFA franc cost of 90 percent of the value of trucks. This made the goal of importing a new lorry an even more distant dream for most truckers. However, it did not blunt their goal of owning, or retaining, a lorry: they used their reduced purchasing power on the world market to buy a higher share of even older trucks¹¹.

¹⁰ It is no co-incidence that, in 1997, UEMOA, La Commission, DATCITT (1997: 26) gave the average age for goods lorries in the region as 18 years-old. A random sample of 43 Ghanaian lorries had an average age of 17 years-old.

¹¹ In early 1998, long-distance livestock traders in Burkina Faso and Mali spent a lower proportion of their trading budgets on road transport than they did in 1990. Despite the intervening devaluation which made importable goods more expensive, it seems that the supply of lorries had grown. Economic growth in the central corridor during the 1990s may have provided the means to truckers to purchase more trucks. Or the availability of relatively cheap north-south trucking services may be partly due to structural changes limiting the availability of alternative backhaul freight. However, it seems that recourse by truckers to purchases of older lorries also contributed to a larger fleet competing for insufficient cargo.

The informal-sector operators, depreciating their capital as they run at a loss, operate on an "if it ain't broke, don't fix it" basis, tending to repair when necessary, rather than perform preventative maintenance¹² This leads to frequent breakdowns that immobilise lorries, again adding to costs (because, despite a vibrant market in used spare-parts, they

Table 1
Decomposition of the cost of road transport in central-corridor countries, 1993

	Tax on		Tradeables	Labour	Capital
	tradeables	non-tradeables			
Burkina Faso	0 40	0 02	0 52	0 05	0 02
Côte d'Ivoire	0 35	0 02	0 56	0 05	0 02
Ghana	0 32	0 02	0 60	0 04	0 03
Mali	0 35	0 02	0 56	0 05	0 02

Source Metzger and Cook (1994 vol 3, 259, table G 1 1)

can be difficult to find) Moreover, the overloaded trucks are often unsafe, causing many accidents¹³ and attracting the attention of bribe-seeking police This adds to delays and bribes, raising costs

Overladen lorries accelerate the degradation of the highway, leading to longer delivery times and, inevitably, over time, to reciprocal damage inflicted on the vehicles by the dilapidated road The cost of upkeep of, and repairs to, lorries increases with the extra wear and tear meted out by potholes and stretches where traffic abandons the road entirely and runs alongside

The damage done to roads increases exponentially with the axle weight, so the most overladen lorries account for almost all the wear and tear (outside the gradual deterioration with age due to the elements) Once roads become potholed and degraded beyond a certain point they have to be rebuilt, a process that costs far more than simple maintenance However, governments' road-repair budgets have not, in the past, stretched to meet all rebuilding required, with the result of increasing stretches of road becoming practically unusable

With incentives to overload, the truckers destroy not only the roads on which they run but also their own vehicles¹⁴ The taxation of vehicle use has not historically provided

¹² Lorries do benefit from a six-monthly technical check-up in most countries (UEMOA, La Commission, DATCITT 1997 28)

¹³ In 1995, poor road safety contributed to about 3,000 road accidents annually in Burkina Faso and to over 4,000 in Côte d'Ivoire (UEMOA, La Commission, DATCITT 1997 32) Road safety regulations differ from one country to another, leaving drivers open to the possibility of committing offences in one country that would not break the law in others

¹⁴ As a result of the poor roads and overloading, tyres typically account for 18% of total costs

incentives to eliminate overloading or to pay the real maintain cost of maintaining roads. The result is an inefficient, aging, undermaintained fleet delivering slow, unreliable and expensive service on a steadily deteriorating road network. Moreover, without incentives to leave the sector, informal-sector truckers oversupply the market with these old, overladen, unreliable vehicles. Haulage capacity is distributed over too many vehicles and exceeds the volume of freight available at market prices, leaving lorries waiting for weeks at ports for freight.

In this context, the formal sector has a hard time. A trucking company might normally consider investing in new lorries to provide fast, reliable service to other formal-sector businesses. However, with the high cost of importing new vehicles, long and unpredictable delays along the route, and heavy depreciation due the damage running on roads in bad condition, there is relatively little incentive to invest in new vehicles.

This, then, is the basic problem. The next section outlines the physical context and institutional background to central-corridor trucking, including details of regional organisations and the roles of government, shippers and truckers. Section three considers the high cost of inputs to trucking, section four looks at delays and bribery, section five assesses the level of backhaul freight, section six documents analyses the state of the roads. Sections seven and eight provide conclusions and recommendations, respectively.

2 The physical and institutional background

2.1 **The geography**

West Africa's "central corridor" includes the landlocked Sahelian states of Burkina Faso and Mali and the coastal states of Côte d'Ivoire, Ghana and Togo (although this study does not examine Togo). (See map 1.)

A network of tarred roads connects these countries' capital cities: Abidjan (Côte d'Ivoire) with its port of Vridi, Accra (Ghana) with its port of Tema, Bamako (Mali), and Ouagadougou (Burkina Faso). Despite the trend towards degradation mentioned in chapter 1, most of the network is in fairly good repair. These roads provide the technical capacity for travel by lorry between all pairs of these capitals (except Accra and Bamako) in just over a day. However, for various reasons discussed in this report, this happens rather rarely on some of these links.

A railway links Abidjan to Ouagadougou, another links Bamako to Dakar (Senegal). Both carry freight, and compete to some extent with long-distance lorries carrying freight between the ports and the landlocked states, particularly for commodities and goods for which delivery times are not of the essence.

The volume of imports to the central corridor from the outside world exceeds the volume of its exports, providing a structural deficit in available southbound long-distance freight. At least 90 percent of imports arrive, and exports leave, by sea, and pass through the

ports mentioned above and also through Lome (Togo) and Cotonou (Benin) Abidjan accounts for most of the central corridor's maritime trade

Figure 1
West Africa's central corridor



2.2 The regional institutional setting¹⁵

2.2.1 Regional organisations

The Economic Organisation of West African States, ECOWAS, includes all West African states as members. The diversity of its membership makes it difficult for this organisation to move quickly towards its goal of regional economic integration. However, some of the fundamental regional legislation on international trucking in West Africa takes the form of two 1982 ECOWAS treaties: the TIE (Transports Routiers Inter-Etats) and the TRIE (Transit Routier Inter-Etats). The essential details of these two treaties are

- 1 TIE covers road transport between two adjacent ECOWAS countries and defines
 - major roads that lorries can follow
 - maximum axle-weights and dimensions of lorries
 - technical characteristics of vehicles performing this service
 - transport documentation: *carte grise*, *carte des transport inter-Etats*, vehicle insurance (*carte brune*), *lettre de voiture*
 - transport conditions
- 2 TRIE governs the customs rules under which the transport of goods through a member state between a non-member state and another member state may take place without paying duty or excise and without unloading. It defines
 - the division between the destination country (two-thirds) and the transitted country (one-third) of the haulage of the freight
 - the technical characteristics of the vehicles (which must be able to be sealed)
 - the payment of a guarantee of 0.5 percent of the CIF value of the shipment to cover possible customs fraud while in transit
 - transport documentation (TRIE card)

ECOWAS member states have signed and ratified these treaties but most observe them at best only partially.

A group of Francophone and Lusophone ECOWAS members also belong to the Union Monétaire Ouest-Africaine (UEMOA) that has the goal of creating a common market within ECOWAS in a relatively short period of time. The treaty signed by UEMOA's members¹⁶ in January 1994 commits them to greater economic integration. In this context, "Additional protocol n° II" sets out the following objectives in the transport sector:

- moving towards gradual liberalisation of road-transport services, with a particular emphasis on facilitating the transport of goods in transit

¹⁵ This section draws on annexe 2 by Kone Amadou

¹⁶ Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger, Togo, Senegal. Guinea-Bissau joined in 1997.

- harmonisation of national planning for road-transport infrastructure
- the opening up of landlocked countries
- improvement of transport infrastructure and transport systems linking member states (UEMOA, La Commission, DATCITT 1997 8)

In practice

- agents of the PDG services apply the rules of one treaty to conditions of the other, perhaps through ignorance, perhaps through convenience, perhaps deliberately to extort extra bribes ¹⁷
- multiple road blocks bring about delays and provide pretexts for bribes
- most lorries do not meet the technical criteria of the TRIE treaty, and banks do not lend money to those without substantial guarantees or fixed revenues so most truckers cannot refurbish their lorries to remedy this problem
- customs officers require multiple guarantees instead of the single TRIE guarantee that should suffice from start to finish For instance, goods transiting Côte d'Ivoire from the port to Mali use a "D25" form to meet Ivoirien customs requirements, which is replaced once having arrived in Mali by a TRIE card ¹⁸ Ghana operates a separate system
- TIE requires a maximum axle-weight of 11.5 tonnes while some UEMOA states have independently adopted a maximum of 13 tonnes (UEMOA, La Commission, DATCITT 1997 30-32) The difference between these two weights in terms of their destructive force on road surfaces is great
- no regional organisation exists to ensure a fair division between countries of the resources generated by the guarantee payments This results in multiple guarantees payable to individual states for goods in transit As a percentage of the CIF value of the shipment, Togo charges 0.25 percent, Burkina Faso 0.25 percent and Mali 0.5 percent
- most countries require customs escorts for most cargoes, despite the payment of guarantees that should compensate the Customs Service for any fraud The requirement for escort causes delays because they do not leave every day The value of the total loss in 1989 was estimated at more than 15,000 million CFA francs ¹⁹

¹⁷ The TRIE 1/3 2/3 rule should not apply to fertiliser manufactured in Abidjan, even if it contains imported constituents, but it does (Meeting with COFAMA executives, October 1998)

¹⁸ Côte d'Ivoire uses a "D6" document in conjunction with a guarantee underwritten for the banks by the freight forwarders All other states require a guarantee fund, fed by levies proportion to the CIF value of the goods transported The guarantee fund guarantees the payment of customs duty in the case that the transit goods are not actually exported from the intermediate country In all countries, the Chamber of Commerce manages this fund, each in its own way In Benin much of it was lost in bank failures In Burkina Faso, the funds served to re-equip railway stations (Banque Mondiale 1990)

¹⁹ République du Mali, Ministère des Travaux Publics et des Transports, Direction Nationale des Transports (1998b 25), citing *Etude approfondie des entraves de procédure aux échanges intracommunautaires dans les Etats membres de la CEAO* Aguichard, avril 1993 The importer pays the cost of the customs escort, which is done despite the existence of the guarantee fund The guarantee fund is designed to protect the customs against losses The convention creating the guarantee fund states that the Chambers of Commerce that manage

- different schemes of insurance for the trucks, rather than the merchandise, operate in Anglophone and Francophone countries, with the result that an accident in another country can result in delays of several months as insurance companies in different countries agree on a settlement and effect the transfer of compensation (See annexe 5 for a discussion of insurance in central-corridor trucking)
- no regional organisation exists to define the mechanisms allowing national organisations to transparently carry out this task (Republique du Mali, Ministère des Travaux Publics et des Transports, Direction Nationale des Transports 1998b 25)

ECOWAS and UEMOA appear to work together with a common resolve to deal with these issues. However, UEMOA is moving forward more quickly because of the common language, currency and administrative structure that most of its members share. By 2000, it intends to have in place a common external tariff (TEC, *Tarif Extérieur Commun*) with respect to non-members, such as Ghana. However, this tariff should be lower than the individual member states' current rates and should not put non-UEMOA ECOWAS members at a disadvantage. Both organisations state that they intend to avoid conflicts deriving from inconsistent tariff policies.

Those responsible for trucking in the ECOWAS member states meet annually as the Higher Committee for Land Transport. The tenth meeting took place in Cotonou in October 1998. Table 2 summarises the status of the four central-corridor states of interest to this report in various dimensions.

Both ECOWAS and UEMOA are currently awaiting the results of what should be a fundamental re-appraisal of the the dysfunctional TIE, TRIE and other regulatory elements governing West African trucking that has recently been carried out.

2.2.2 Structural adjustment in the transport sector

All four countries under study are either fundamentally reviewing their road-transport sector or have gone beyond that stage and are actively reforming it.

Ghana leads the van. It has reduced the number of its road checkpoints and a new Inspector of Police has clamped down hard on extortion. Ghana is about to charge lorries tolls on major roads according to their weight and degree of overloading. It has set up a Road Fund, legally autonomous of the Treasury, into which payments from fuel levies and tolls go directly. The Road Fund board allocates funds to the maintenance of the country's roads, and is run by a board in which six of thirteen members come from the private sector. The private sector carries out 90 percent of the roadworks they approve. Mali is moving in the same direction but lags perhaps a year behind Ghana. Reports providing details of how Mali's Road Fund would work are now emerging.

the guarantee funds will pay for the customs escort, but this has never happened in any of the countries involved. In practice, customs escorts do not mean avoiding checks at customs checkpoints, as well as at those for the police and gendarmes.

Burkina Faso has instigated tolls on stretches of road. Like Ghana, over the course of the 1990s, it has handed over the maintenance of its roads to the private sector. However, rather than create an autonomous road fund, Burkina Faso has decided to continue its practice of accepting an annual budget accorded by the Treasury. Côte d'Ivoire has perhaps done least to change the structure of its road-transport sector.

Table 2
The extent of implementation of ECOWAS decisions in the area of road transport

	Signature of the guarantee treaty (TRIE)	Control posts	National committee	Units responsible for road safety	Limitation of axle-weights to 11.5 tonnes
Burkina Faso	Yes	Reduction of number of posts Abolition of the rule about the first-aid box for goods lorries	Inter-ministerial committee	Creation of CONASER	Application since 1973
Côte d'Ivoire	No insists on vehicle specifications	Government decision Mixed controls at border posts	Committee created in 1996	Creation of a national committee and OSER	In the course of being applied
Ghana	No	Significant reduction in the number of posts by the government	Committee created Does not accept national identity cards	Creation of a national unit	
Mali	Yes	Reduction from 93 to 16	Created in 1997	Creation of a transport observatory	In the course of being applied

Source ECOWAS (1998 annexe 1)

2.3 Shippers' organisations

Shippers' organisations exist to manage and accelerate the flow of imports and exports for the shippers from a given country. Burkina Faso has the *Conseil Burkinabe des Chargeurs* (CBC), Côte d'Ivoire has the *Office Ivoirienne des Chargeurs* (OIC), and Mali has the *Entrepôts Maliens* (EMA). CBC and EMA have agencies in several ports.

CBC informs importers that their goods have arrived and helps them with the port paperwork, but it does not offer any warehousing facilities. A levy of 10 000 CFA francs per load on the documentation of shipments carried to Burkina Faso by lorry finances it. Burkinabe shippers must pay the levy whether or not they need the services that CBC provides.

EMACI (the *Entrepôts Maliens en Côte d'Ivoire*) provides Malien shippers with low-cost warehousing and forms a base for Malian customs, unions and Ministry of Transport agents. However, drivers note that it is corrupt in its allocation of freight to Malian lorries.

Liberalisation of shipping operations has removed OIC's previous role of allocating cargoes to shipping lines. The shipping companies now manage their own freight. So OIC has transformed itself into a manager of lorry documentation and of parking of vehicles carrying bonded goods at the port of Abidjan. OIC earns 10,000 CFA francs for providing the lorry documentation for each Ivoirien-bound load. This levy was seen as too high and was reduced to 2,500 CFA francs at one point, but may since have risen to its former value. OIC also earns 1,500 CFA francs (empty) or 2,500 CFA francs (laden) for each day a lorry spends in the bonded lorry park, as well as 2,500 CFA francs on each laden lorry leaving Côte d'Ivoire. The organisation should gather statistics but does not apparently do so.

2.4 Truckers and their unions

Small truckers dominate the sector, with only a few larger, modern-sector companies. For example, Lia (1997: 241) estimates at 91 percent the proportion of Ivoirian lorry-owners with 1 – 5 vehicles, whereas the larger, more formally-run companies with at least 20 lorries constitute only 26 percent of the national fleet (UEMOA, La Commission, DATCITT 1997: 28). Most truckers are members of unions which, though well-organised in some cases, do not always serve their members well.

In the informal sector, less than half the lorries are driven by their owners. Indeed, only 5 percent of Malian drivers interviewed while waiting for freight at Abidjan owned their vehicles. However, an estimated 30 – 40 percent of drivers waiting for freight at Tema own their vehicles. This may reflect either a higher proportion of vehicles owned by each informal-sector owner in Mali than in Accra or a greater alacrity for Ghanaian owners to drive a lorry once they have bought it. As might be expected, owner-drivers have more initiative to take entrepreneurial directions.

Some informants suggested that the large number of informal-sector truckers have a lot of power because of their unions but, as will be seen below, their unions seem most interested

in their political role with respect to the government which, at least in Burkina Faso, keeps trucking rates low. The unions provide information about forthcoming availability of freight and help when they get into difficulty on the road. When roadside extortion reaches unacceptable extremes, they call strikes, either on their own or in collaboration with unions in other countries. In this sense they may appear to have a lot of power.

However, they do not appear to provide training in accounting or business management, or even adult literacy that, together, would help informal-sector truckers know whether they were operating at a loss. Nor do they offer training for mechanics in vehicle maintenance that would keep the old fleet in a better, safer state of repair. Instead, unions seem more interested in claiming a large fee for each truck loaded in its jurisdiction. The average member seems to get little for what he contributes.

In Burkina Faso, government works hand-in-glove with the truckers' union, Organisation du Transport du Faso (OTRAF) that lacks mechanisms to derive a mandate from its members (and thus credibility) and charges for the services it may not even provide. When at the port of Lome or Abidjan, Burkinabe truckers have to pay a government-approved 10,000 CFA francs to both OTRAF and CBC, whether or not they use their services in finding freight to haul to Burkina Faso.²⁰ At the Burkinabe border they will have to provide customs officials with receipts showing that such payments have been made. In addition, Burkinabe drivers have to pay 1,000 CFA francs for the right to use the bonded parking.²¹ At the moment, all Burkinabe truckers with a *Carte grise* are automatically members of OTRAF and should pay an annual fee of 5,000 CFA francs. As a result of this cosy monopolistic arrangement, OTRAF does little to organise and channel the energy of the trucking sector into effecting liberalising changes that would benefit it.

In Mali and Côte d'Ivoire, in contrast, a multiplicity of unions with shallow memberships has sprung up to reflect the interests of political parties.²² In each country, only two unions – SNTMV-CI, SYNTT-CI in Côte d'Ivoire and UNCTRM and SYNTRUI in Mali – have significant depth. Nonetheless, officially recognised Malian unions work under the umbrella organisation of the Coordination des Syndicats du Mali (CSM) which receives 15,000 – 25,000 CFA francs per lorry leaving the port for Mali, no matter how the trucker found his freight. Few consider that the services provided by CSM merit the fee paid. The *raison d'être* for some of the unions appears to be to claim for their office bearers their share of the revenue derived from these fees. They do not seem capable of cooperation to advance their members' needs.²³ Similarly, the Office Ivoirien des Chargeurs oversees the sales of 5,000

²⁰ In the ports, OTRAF claims to replace the brokers who formerly dominated the allocation of freight to Burkinabe lorries.

²¹ In Burkina Faso, the driver of a non-Burkinabe lorry can request freight, if no Burkinabe lorry is available and, if he pays 10,000 CFA francs to OTRAF, he can take it. In Mali, drivers of non-Malian lorries use brokers or one of several unions to find freight.

²² Côte d'Ivoire's Directeur des Transports Terrestres notes that the country has 15 truckers' unions.

²³ In Mali in 1982, a fund was created to provide a rotating fund for the acquisition of vehicles. 25 percent of the receipts from the *droit de traversee routiere* charged on vehicles

CFA-franc tickets for the right to load lorries at the Port of Abidjan by each of seven unions in turn. Neither the lorries' owners or drivers receive any benefits for this payment, which the unions retain.

Not infrequently, the unions in the Francophone countries strike to heighten awareness of the extortion and delays brought about by PDG services. Generally they do so on a national basis, in 1997 they organised a regional strike. However, they achieve little. Partly co-opted by the government in each case, they obtain concessions in the form of meetings with ministers who react slowly to defuse their discontent and who, at best, ensure reductions of the number of checkpoints which, within months, have been undone. Until the unions become truly independent organisations and until truckers have the right to choose to join them, their bark will be worse than their bite and they will not play the major role that they should in opposing corruption and lobbying for their own interests in road-development policy.

In Ghana, the unions seem to have more autonomy from government and truckers have the freedom to join them if they wish. The Ghana Private Road Transporters' has the largest membership, but more among owners of buses and light trucks. The Hauliers' Association is more influential among the owners of heavy goods vehicles. Both lobby government in their members' interests and have representation on Ghana's Road Fund Board that decides road maintenance policy.

2.5 The road-haulage market

2.5.1 International trucking in the central corridor

Lorries registered in all central-corridor countries carry freight to all others, but to varying degrees. Lorries from all countries descend on the Vridi docks in Abidjan, mostly to haul freight to their countries of registration. Some Ivoirien trucks take goods to Mali but, at present, they do not find it profitable to haul loads from Abidjan to Burkina Faso for the large volume of imports for which the parastatal, CGP, sets the rates. Additionally, the rates for southbound shipments of cotton²⁴ are not attractive. The resulting low number of Ivoirien lorries operating on Burkinabe highways therefore limits the international mix of haulage opportunities, increases the power of OTRAF and removes some diversity of competition from the Burkinabe road-haulage market. Ghanaian truckers have historically undercut their Francophone African counterparts, with the results that Ghanaian lorries may be found as far away as Guinea and that relatively few lorries registered elsewhere haul freight to Ghana.

2.5.2 Government influence in rate setting

using Malian roads for international transport were to be used for bank guarantees for purchases of vehicles. This fund continues to accrue funds and has never been used, because the different unions could not agree on how to use them. Meanwhile the unions tax 1-2 percent of transport cost, but contribute nothing to the fund for bank guarantees.

²⁴ 27 tonnes of cotton for 800,000 CFA francs

The governments of Burkina Faso and Mali not only build and maintain roads and regulate lorry transport – as the governments of Côte d'Ivoire and Ghana also do – but also influence the road transport sector by providing through their parastatals 85 – 90 percent of backhaul freight for three-quarters of the year. Cotton exports from Mali's *Compagnie Malienne pour le Développement du Textile* and Burkina Faso's *Société de la Filature et de Textile* account for this percentage from October to May. Each gives this haulage preferentially to domestically-registered lorries and, because of its weight in the market for backhaul freight, dictates tariffs to truckers. In addition, the *Caisse Générale de Péréquation* (CGP), the major Burkinabe importer of staples, plays an important role in the market for northbound freight, which it preferentially allocates to Burkinabe-registered vehicles. Although its influence may be indirect, in each case the public sector has too much influence in the setting of trucking rates, which become a political issue, rather than a technocratic decision or a free-market phenomenon. CGP currently imposes lower rates than Côte d'Ivoire, Mali or Niger encouraging overloading by the Burkinabe lorries taking the freight and dissuading lorries from other countries to compete for it²⁵. For this reason, the Ivoirien Directeur des Transports Terrestres dismisses the possibility of benefits to Côte d'Ivoire from participating in a regional backhaul-freight information system that would provide details of the availability of freight that truckers could use to increase the capacity usage of their trucks. How could such a system help Ivoirien truckers, he asked, if Burkinabe trucking rates remained so low that they scarcely ventured into Burkina Faso?

3 Cost of inputs, markets and taxation

3.1 **The high cost of inputs to road haulage**

Truckers import all lorries because no company manufactures them in West Africa. New lorries have arrived there only rarely. During economic booms some truckers, mostly in the formal sector, have bought them. In addition, when aid agencies have needed to convey large quantities of food-aid to the Sahel from the coast, they have bought new lorries to do so. After the acute need for food-aid has passed these find their way into the local economy.

However, even during economic booms, most truckers buy second-hand lorries from Europe. Similarly, dealers in second-hand spare parts for them also buy them from Europe, especially from the Netherlands and Germany. West African dealers import some. Some observers suggest that they take a large margin that results in high prices for West African truckers.

²⁵ Thus, despite deregulation in the sense that governments no longer mandate fixed road-haulage rates, governments still play a large *de facto* part in setting rates through their influence on these major shippers. In this way, “free-market rates” mentioned, for instance, by UEMOA, La Commission, DATCITT (1997: 28) are something of a fiction.

European-based expatriates ship others out to West African ports, often as a concrete remittance of savings made there

Importers of second-hand parts feed active markets, though shortages still exist and truckers complain of high prices. Insufficient information circulates about too many types of spare parts for a diversity of makes and models of lorry. And, at least in Burkina Faso, some middlemen apparently take large margins when they import vehicles for clients

3.2 Bulk purchases

Some observers have proposed that lorry owners should club together to make bulk buys of vehicles, spare parts, tyres and fuel (Adolehoume 1992: 181, République du Mali, Ministère des Travaux Publics et des Transports, Direction Nationale des Transports 1998a: 9,12). In theory, this proposal looks attractive. In practice, it sometimes works: there are co-operatives in Côte d'Ivoire offering lease-sale options for lorries. However, the General Secretary of Ghana's GPRTU notes that when his union tried bulk purchases of spare parts they cost more because of the extra costs of the bank loan and warehousing necessary. The union found diseconomies of scale. The Co-ordinator of Burkina Faso's Programme d'Ajustement Sectoriel – Transport reminds us that most vehicles are owned by truckers who are individualists, mistrust others with their money and do not keep books. Under these circumstances, collective purchases would be difficult to organise.

For the same reasons, obtaining bank finance, the absence of which provides constraints for truckers, would become easier if they were organised in co-operatives. In addition, group insurance premia would be cheaper. Many Malian truckers insure their lorries but not their loads. Without insurance of merchandise, an accident with losses could ruin the trucker. If truckers are already organised, these advantages might be easily won, but if truckers are mistrustfully individualistic, the cost of winning their trust and organising them would probably not be worth the effort (Adolehoume 1992: 181, République du Mali, Ministère des Travaux Publics et des Transports, Direction Nationale des Transports 1998a: 8).

In these cases, bulk buying holds the promise of bringing lowered costs to truckers but the prerequisite is an institutional coherence and stability without which such a venture may, in fact, lead to higher costs.

3.3 High taxation

With one important exception, governments tax all inputs to trucking as they enter the country, as table 3 shows. In accord with international treaties, road-transport items destined for landlocked Sahelian countries travel through coastal countries without taxation at that stage. Although the extra journey incurs extra transport and handling costs, taxation only occurs in the country in which final consumers buy them.

Table 3
Percentage import duty on inputs to trucking

	Burkina Faso	Côte d'Ivoire	Ghana	Mali
Lorries	36	48	0	28
Fuel	70	70	41	62
Spare parts	53	65	27	40
tyres	53	80	27	42

Note that

- 1 some items (e.g. spare parts in Côte d'Ivoire) have significant variation within the category and the figures given therefore represent an estimated average
- 2 in some cases (e.g. fuel in Côte d'Ivoire) the "duty" comprises a multiplicity of elements a minority of which may, in fact, be handling charges rather than taxes
- 3 "Fuel" is diesel
- 4 including the Road Fund component of the Ghanaian fuel duty increases it to 88 percent (though it should be noted that the Road Fund itself emphasises that this is a levy not a tax)

Table 3 shows that Ghana has eliminated import taxes on vehicles²⁶ and has the lowest taxation on the other inputs²⁷. In contrast, Côte d'Ivoire has the highest tax rates on all inputs. Between these two extremes lie the two Sahelian countries, with Mali levying slightly lower rates than Burkina Faso. Ivoirian authorities explain their relatively high taxation of tyres as a means of making road users pay for this privilege as a function of the distance they cover. However, it takes into account neither distances that Ivoirian lorries might cover in other countries, nor the possibility that when they venture outside Côte d'Ivoire they may take the opportunity to buy new tyres. In these respects, this policy is blunt and inferior to tolls on stretches of road discussed below. However, it is cheap to administer.

Considering the proportion of the inputs listed in table 3 in a typical West African trucking budget, table 4 calculates how much higher costs non-Ghanaian truckers pay, input by input²⁸. Consistent with table 3, table 4 shows that Ivoirien truckers suffer from the highest cost disadvantage: import taxes mean that their costs exceed those in Ghana by 27 percent,

²⁶ Ghana has eliminated import duties on vehicles at the same time as banning imports of all vehicles over ten years old. Taxation on vehicles imported into Burkina Faso has twice been reduced in recent years. A reduction in 1988 in order to encourage the purchase of new vehicles didn't have many takers. A similar incentive in 1995 met with similar limited success. Other countries seem to have maintained constant high import taxes on lorries.

²⁷ A major Ghanaian truckers' union, GPRTU accepts that the tariffs on inputs to trucking are "relatively low" but point out that the constraint to importing for most Ghanaian truckers is the high capital cost of the trucks. With bank interest rates at 36 percent p.a. a typical five-year loan to pay for a 9.5 year-old, 60 million cedi truck, the total cost is approximately 280 million cedis. In addition, the bank requires comprehensive insurance to the tune of 150,000 cedis annually for a loan of this size. A five year-old truck would cost about 115 million cedis.

²⁸ The mean proportion of trucking costs for Mali, Côte d'Ivoire and Cameroon from LET and INRETS (1989) is amortisation 14 percent, fuel 24 percent, maintenance 19 percent and tyres 12 percent. Table 3 slightly overstates the Ghanaian advantage by assuming that spare-part costs account for all maintenance costs.

independent of any other effect. Each of the four inputs has a roughly similar order of magnitude. Burkinabe truckers' costs are 20 percent higher while Malians pay only 13 percent over the Ghanaian cost. However, note that, by their nature, lorries are mobile and that those carrying international freight will tend to purchase inputs in countries where they cost less, thus reducing these differences to some extent.

Table 4
Percentage cost disadvantage of trucking in central-corridor countries
with respect to Ghana due to its lower import taxation

	Burkina Faso	Côte d'Ivoire	Mali
Lorries	5	7	4
Fuel	7	7	5
Spare parts	5	7	3
tyres	3	6	2
TOTAL	20	27	13

As UEMOA members Burkina Faso²⁹, Côte d'Ivoire and Mali have all committed themselves to reducing their customs duties to a low common rate with respect to non-UEMOA countries, e.g. Ghana. According to this *Tarif Extérieur Commun* (TEC), member states must reduce these duties to no more than 25 percent for 1999, and to no more than 20 percent from 1st January 2000³⁰. However, taxes other than customs duty on imported goods may also be levied (UEMOA 1997c: 2-3).

Thus it seems that downward forces will come to bear on import duties in these three countries. However, UEMOA's TEC regulation specifies that, during the second half of 1998, customs duty should not exceed 30 percent in member states. This appears not to have been met in at least some cases. However, as some data gathered did not distinguish clearly between "customs" and other import duties, it is difficult to conclude this unambiguously. In addition, the UEMOA regulation indicates import duties other than the customs duty: the *Prelevement Communautaire de Solidarité* (TCS), the *Redevance Statistique*, and the *Taxe Conjoncturelle à l'Importation*. The TCS cannot exceed 10%, but in the other cases UEMOA's commission will set rates at levels as yet unknown.

In 1996 expenditure on the current and periodic maintenance and the rehabilitation of Mali's trunk road network equalled 14,824 million CFA francs. The net tax revenue from the road-transport sector equalled 32,854 million CFA francs. The sector thus contributed more than

²⁹ Burkina Faso has already dropped its import tax on lorries from 67.68 percent in 1995 to 35.52 percent in July 1998.

³⁰ The regulation fixes four rates of customs duty from 1st January 2000 onwards: exemption, 5 percent, 10 percent and 20 percent. The last of these is set at 25 percent for 1999. UEMOA's Council of Ministers will allocate goods and commodities to these customs categories.

twice as much as it received in terms of infrastructural development. And it contributed 29 percent more in 1996 than in 1995. Similarly, a 1992 study by Côte d'Ivoire's DCGTx estimated that from 1985-92 receipts from taxation on the road-transport sector exceeded the budget allocated to roadworks by 14 – 26 percent, depending on the year (UEMOA, La Commission, DATCITT 1997: 20).

Table 4 shows the breakdown of receipts from taxation in Mali in 1995. Truckers paid 22 percent in the form of tax on diesel fuel, a cost that varies with distance. They also paid part of the 16 percent raised by taxing vehicles and part of the 10 percent from taxation of spare parts and tyres, as well as most of the taxes on road transport and DNT taxes. Note the high proportion of the revenue, 89 percent, raised through import taxes and the low proportion, 2 percent, raised through income tax.

Table 4
Malian annual tax receipts from the road-transport sector, 1995

Import taxes, of which	millions of CFA francs	percent
vehicles	4,011	16
spare parts	1,359	5
tyres	1,257	5
"super" petrol	546	2
"ordinary" petrol	9,826	39
diesel	5,545	22
Tax on cars	497	2
Tax on road transport	1,045	4
DNT taxes	414	2
<i>Droit de traversee routiere</i> ¹	273	1
income tax on transporters	633	2
TOTAL 1995	25,406	100
TOTAL 1996	32,854	Increase of 29%

Source: report to be published in early 1999 on taxation in the Malian road-transport sector.

Note 1: For details of the *droit de traversee*, see annexe 6.

3.4 Ghanaian income tax

As part of their income-tax payment, truckers in Ghana pay 5 percent of the cost of transport of most individual cargoes³¹ to the Haulage Association, which remits the revenue to the Internal Revenue Service (IRS). They make these payments before starting their journeys and, at various points on major roads, GPRTU "union police" verify receipts for tax paid.

³¹ Until 1997, they paid these income-tax contributions at a rate of 10 percent of the cost of transport.

From the IRS's perspective, this tax system has two advantages. Firstly, the pay-as-you-earn element limits tax evasion by collecting tax as the trucker receives remunerative work³². Secondly, it provides incentives to small firms to join the formal sector in the following way. The IRS calculates that the per-trip payments approximate the top rate of business income tax of 35 percent (See table 5). Only by keeping accounts – including the receipts for per-trip contributions made – and submitting income-tax returns can a trucking concern hope to obtain refunds for excessive income tax collected over the course of the year. In addition, only those submitting returns can claim capital allowances of 20 percent of the purchase value of the firm's lorries against tax. Thus hauliers who insist on operating informally cannot hope to minimise their tax bills. Large formal-sector haulage companies – organised as limited companies, partnerships, or self-employed enterprises – will probably have incomes high enough to require payment at the 35 percent rate but will also benefit from capital allowances. Smaller formal-sector operators may only benefit from both capital allowances and lower rates of tax if they keep accounts and submit an income-tax return. In addition, they may then carry forward any business losses to the next tax year.

Table 5
Ghanaian business income tax bands

Income (million cedis)	Tax rate (percent)
First 0.9	0
Next 0.9	5
Next 1.2	10
Next 7.2	15
Next 7.2	25
Above 17.4	35

3.5 Reducing the aging of national fleets

In 1983-84, Mali adopted a policy of renewing the national fleet of lorries by requiring that imports of vehicles over 7 years old required an authorisation from the DNT. Then the policy was dropped. It was readopted in the framework *Projet Sectoriel Transport, 1994-98* (which, in fact, runs for 1995 – 2000 and therefore continues today). During this period, imports of vehicles over three years-old are banned. In the near future, DNT intends to limit the age of imported vehicles to five years-old (because this will reduce running costs). Ghana has banned imports of all vehicles over ten years old, while eliminating import duties on those allowed into the country. It seems that Burkina Faso and Côte d'Ivoire have no schemes to limit the aging of their national fleets.

³² An internal IRS document discusses tax evasion "on a massive scale" to be countered by the system of checks by GPRTU agents at road barriers.

4 Delays and bribery

Hindrances to the movement of goods along trade axes include

- long waits at ports
- superposition of national customs regulations, generating delays at ports and borders
- customs escorts (customs agents accompanying lorries to ensure that the bonded load, or part of it, does not escape within a country through which it passes)
- excessive verifications at checkpoints
- extortion along the trade routes

(Republique du Mali, Ministère des Travaux Publics et des Transports, Direction Nationale des Transports 1998b 4)

Most observers believe that the combination of delays and corruption associated with the region's ports, roadblocks and frontier posts is the greatest impediment to an efficient regional trucking system. This problem reaches its zenith for northbound flows of imported goods transiting Côte d'Ivoire. However, many of the noxious elements can be found to various degrees in other countries, in bilateral trade and in southbound shipments.

There exists no doubt that without the delays caused by heavy regulation and corrupt PDG agents, as well as banditry limiting travel to daylight hours and poorly-maintained lorries, journey times would drop significantly. Some cargoes already avoid significant delays in their journeys from coastal ports to Sahelian destinations. Burkina Faso, Côte d'Ivoire and Mali have agreed that the transport of liquid hydrocarbon fuels is a priority. These fuels, suffer from far fewer of the problems discussed later in this section. They travel from Abidjan to Burkina Faso and Mali travel without a customs escort, the driver pays perhaps only 200 – rather than 1,000 – CFA francs per checkpoint, these shipments have no problems with banditry and so travel within Côte d'Ivoire at night. Lorries carrying them enjoy a fast turnaround because (a) they can load and unload quickly, (b) *pro formas* from multinational oil companies eliminate problems in financing the shipment, (c) they are highly flammable and become more so if they heat up during long waits – no one wants an explosion at his checkpoint. Though clearly these cargoes constitute a special case, they show that, if the conditions are right, road haulage can take place much more rapidly than at present.

4.1 **The roadblocks**

Agents of several arms of government abuse their positions in demanding bribes from drivers and/or traders who own the cargo in return for permission to travel. The relative importance of these agents in slowing down regional trade and making it more expensive varies by country. However, truckers and shippers cite agents of the Customs Service (who control matters relating to the international flows of goods) and the police (who control the technical state of lorries and the documentation of the lorry and its crew) as foremost in this extortion. In the Francophone countries, the gendarmes play much the same role as the police. Agents of these three uniformed services – known informally as PDG (*police, douane, gendarmes*) in some circles – have police powers to detain and delay vehicles at their discretion. The regulatory framework is unsuited to encouraging regional trade and

provides ample opportunities for PDG agents to find faults in compliance on the basis of which they can leverage bribes from truckers and shippers. Other officials, such as those who verify the health certificates of imported animals, phytosanitary control, or have responsibility for port security, may also seek to use their position to obtain bribes.

PDG agents operate in this way all along the itinerary. The importer of a shipment arriving at a port may expect expensive delays before customs agents authorise the release of his bonded goods³³. After loading the goods onto a lorry at port, a final inspection by port officials may repeat the detailed inspection that customs agents have just done. Once on the road, successive checkpoints set up by individual PDG services provide ample opportunity for agents to slow down traffic and refresh their exchequer. At border checkpoints, paperwork for the cargo has to be redone, providing fresh opportunities for delay that agents may easily provide scope for extortion.

4.1.1 Road delays and bribery

In general, the customs agents collect bribes from the trader who owns the goods. They occupy a particularly strong position in the case of perishable goods. Customs agents have the power to require a driver to unload his entire shipment if not satisfied with bribe levels offered. The police and gendarmes generally collect them from the lorry driver (to whom the lorry's owner provides a fund for this purpose). However, drivers state that sometimes PDG agents take a bribe-provoking response on issues outside their purview that should formally be handled by another service³⁴.

Although no doubt exists that PDG agents actively search to enrich themselves through extortion, lorry drivers often abet them. For reasons discussed below, the regional lorry fleet is old and, more importantly, in a poor state of repair. Informal-sector lorries often travel in an unsafe condition. In addition, an excessive number of crew members (particularly for southbound shipments of small ruminants) or irregularities in their documentation (particularly in Côte d'Ivoire) may breach national regulations. Under such conditions, knowing the rules, the driver may be as keen to suborn the policeman or gendarme as the agent is to demand a bribe from the driver. However, even when a lorry is in good technical condition and the crew meets all legal norms, the policeman or gendarme will expect a standard minimum bribe to allow the lorry to continue without delay. In addition, he may "find" a fault that allows him to delay the vehicle. Drivers' folklore is replete with tales of contorted logic to justify delays, and thus larger bribes.

In order to minimise the attention of the Customs Service, the shipper generally takes the trouble to employ a transit agent to ensure that both the load and its documentation conform to the rules before departure. In such cases, the customs agent at each customs checkpoint

³³ Note that this important and expensive delay to international trade does not constitute a road-transport delay because it occurs before loading the shipment onto a lorry.

³⁴ For instance police have escorted northbound freight and customs agents sometimes inspect vehicles. This raises questions about the need for all these services to control trade and transport.

merely expects an outright bribe at a standard rate. As a matter of course, any irregularities detected will lead to demands for higher bribes.

At most checkpoints, the driver need do no more than get out of his truck, go over to the agent by the roadside, present the documentation for the vehicle and cargo (with a standard bribe for that checkpoint enclosed) and wait for the agent to return the documentation, before leaving. However, in addition to the irregularities noted above that may provoke the agent to demand a higher bribe, certain other factors enter into play. In Côte d'Ivoire these include the country where the vehicle has been registered, the citizenship of the driver, and the driver's status (as measured in terms of his stature, dress and his facility with the French language). Interviews suggest that a serious Ivoirien driver of an Ivorien-registered lorry who projects confidence and displays a certain mastery of French suffers significantly less at the hands of PDG agents.

Extortion only exists at the operational level because it is tolerated, if not encouraged, at high levels within the PDG organisations. This is evident because, in Burkina Faso and Côte d'Ivoire³⁵, livestock traders can hire the services of companies – *societes de convoyage* – that offer to pay the PDG officials along the route in such a way as to lower the total paid by the traders and also limit to a bare minimum the delays at each control post³⁶. Livestock traders particularly value limiting the delays because their cargo is perishable. In general, these companies deliver what they offer and most livestock traders use them. The companies can only offer this service because they have made agreements with high-ranking PDG officials who, in return for a consideration³⁷, ensure that their agents accept the lower payments proffered by these companies' agents and that they do not delay the shipments of livestock³⁸. Secondly, in some countries a market exists in PDG organisations for transfer to certain posts known for the larger bribes extractable there³⁹. It seems unlikely that such a market could flourish without the knowledge – if not the collusion or manipulation – of higher-ranking officials. Finally, high-level involvement would at least partially explain why extortion persists and why attempts from outside the service to limit the numbers of road checkpoints generally last for only a month or two before their resurgence, the creation

³⁵ Mali has had *societes de convoyage* in the past but not for several years. Ghana seems never to have had them.

³⁶ This service may cover only some of the all PDG services, because of the complexity of arranging agreements with all three at once.

³⁷ By using an outside company for this sole purpose at arms length, the high-ranking officials may feel they can ensure their own part of the proceeds from bribery whereas this may be difficult to control from within the organisation because of a variety of conflicting loyalties at lower levels.

³⁸ In practice the *societes de convoyage* do not always deliver exactly what they offer. Sometimes their agents cannot persuade individual customs agents to accept the agreed sum. This is an outward manifestation of a battle within the customs service over the division of the extortion spoils.

³⁹ One Ivoirien customs agent reportedly paid two million CFA francs for his transfer to the post at the Burkina border and, in an argument with a trader, made it clear that he had to take bribes at some minimum level in order to make his investment pay.

of new ones, the appearance of compensatory checks by mobile squads, or the raising of bribes in the remaining checkpoints to cover the lost revenue from those closed down

Societes de convoyage represent the institutionalisation of roadside corruption but they are not its cause. Their flourishing underlines the strength and impunity of state institutions with respect to the private sector and the weakness of civil society. In themselves, they are a logical response to an inefficient market for corruption. The corruption is the deeper malaise of which the *societes de convoyage* are a symptom. If corruption were to disappear, so too would the *societes de convoyage*.

There exists no doubt that some control by police and gendarmes of international freight and vehicle roadworthiness (and possibly lorry crews) can be justified on grounds of national security and road safety. However, current control levels are unjustifiable on these grounds. In Côte d'Ivoire, these services indulge in venal procrastination at the same time as they fail to stop highway robbery on shipments by road. Threats of insecurity mean that most trucks do not travel at night along large stretches of the main roads for fear of highwaymen, even in convoys. This leads to further delays to road transport.^{40 41} Similarly, customs officers should protect a country from contraband. However, in most central-corridor countries, they stand accused of exploiting their positions of power by threatening to carry out their work with painstaking punctiliousness in order to extract bribes in exchange for using less diligence.

When governments try to reduce the number or intensity of checkpoints, critics charge that agents employ two counter-strategies. Firstly, they use their professional discretion to allow more criminal activity than they normally would. Customs agents may permit merchandise to flow through the system without paying duty and appear on national markets, to the consternation of honest national traders who have paid duty on competing products. Police may react less severely to accounts of highway robbery, provoking truckers to take the trouble of travelling in convoys. (One informant suggested they might even arm bandits to provoke cries for better security.) They thus provoke backlashes that provide an argument for their prior policy of "strict enforcement".

Secondly, they wait for a month or two and begin to set up their checkpoints again, possibly in different locations, possibly mobile instead of fixed, possibly justified by reasons that make a new security or safety case for reinstated controls.⁴² Without firm leadership from

⁴⁰ Banditry between border posts was a problem at the Côte d'Ivoire-Burkina Faso border. Police from neither country patrolled this no-man's-land in which brigandry flourished. Now, however, police from both countries have – and use – the power to guard these marches.

⁴¹ In the other central-corridor countries (except Togo), security is much less of a problem and lorries do travel at night.

⁴² Malian drivers complained that they had participated in one regional strike (8th – 11th September 1997) and one Malian strike (20th October 1997) against the frustratingly unrelenting and impoverishing graft at PDG checkpoints, but that they won nothing. Indeed, since then the situation had become worse, with higher levels of extortion than before the

the highest levels of the ministries overseeing these forces, this is a show that is set to run and run⁴³

4.1.2 Delays and extortion on routes between the Sahel and Abidjan

Consider first southbound journeys. The empty southbound trip serves as a reference point when measuring the level of bribes and delays encountered on laden journeys. Malian drivers interviewed at the Abidjan port stated that the journey to Abidjan from most Malian provenances takes just over 24 hours. However, with cargo, the time taken rises to between two and four days, in most cases, with the extra number depending on the level of bribes paid⁴⁴.

On entering Côte d'Ivoire, for the last three years Ivoirien customs agents have required non-Ivoirien-registered vehicles to pay for a *vignette touristique*. This is a payment officially reserved for automobiles but which they have applied also to trucks in transit. It costs 7,500 CFA francs at night or at the weekend and 5,000 CFA francs at other times. When drivers reach southern Côte d'Ivoire, customs agents there tell drivers that this permit is, in fact, not valid in the south of the country. In the north, customs agents issue the *vignette* for 30 days and check returning trucks to ensure that they still have valid *vignettes*.

Non-Ivoirien crew members for each lorry required a *carte de séjour* – a sort of visa or laissez-passer – from the time at which Côte d'Ivoire began to track the presence of non-nationals more closely. In practice, this meant each crew member buying such a card or the driver risking demands for significant bribes from policemen and gendarmes. The unpredictability of lorries' departure times, the limited number of locations where crew members might buy these cards, the delays associated with buying them, and the possibility of negotiating low bribes for not holding current cards together mean that crew members rarely obtain them and thus leave themselves open to hassles along the route south. To resolve this issue, Côte d'Ivoire agreed with the Sahelian states to institute a *carte professionnelle*, apparently also referred to as a *carte orange*, with effect from May 1998. To obtain them, Sahelian truckers have to contact the Ivoirien Directeur des Transports Terrestres with a list of their crew members' names. After approving them, the director forwards the list to his Sahelian counterpart who then has the right to issue the cards. In

strikes. In particular, the number of mobile checks had increased to substitute for fixed posts that had been "removed".

⁴³ Thanks to pressure from the World Bank-funded Structural Adjustment Programme, Côte d'Ivoire has imposed limits to road checkpoints. Officially at least, only 23 fixed control-points now operate in the whole country, including border posts. This is far fewer than at the start of the 1990s.

⁴⁴ Drivers note that if they paid, say, 2,500 CFA francs at each of the roughly 30 police and gendarme checkpoints, and if the trader paid 10,000 CFA francs at each of the 12 customs checkpoints, (i.e. with total payments of about 200,000 CFA francs), the length of the trip could be reduced to about 24 hours. Avoiding the death of just one head of cattle worth 150,000 CFA francs each could justify the extra payments of no more than 50,000 CFA francs.

principle, this card substitutes for the *carte de sejour*. However, in practice the bureaucratic system has not worked, and Sahelian lorry crews with *cartes professionnelles* have not found themselves immune from harassment from Ivoirien PDG agents. In the meantime, the price of a *carte de sejour* rose from 5,000 to 15,000 CFA francs in August 1998.

Over the course of a typical trip from Burkina Faso to Abidjan, a lorry might meet 40 checkpoints, each of which might take a mean of half-an-hour to negotiate, leading to 20 hours of delay in each direction. On the Ouagadougou-Abidjan route, bribes cost about 150,000 CFA francs. This is in addition to the qualitative aspects of fatigue and annoyance caused by delays and supercilious treatment at the hands of the PDG agents.

Livestock shipments have to arrive quickly at Port Bouet market in Abidjan to avoid excessive mortality. For this reason, livestock traders pay higher bribes in order to accelerate the passage of their trucks. The total typically reaches 75,000 CFA francs in order to reach Port Bouet in 48 hours.⁴⁵ In addition, the livestock trader must pay between 75,000 and 100,000 CFA francs to one of four *societes de convoyage* at the Malian-Ivoirien border at Pogo (or at Ouangolodougou for livestock shipments arriving from Burkina Faso).⁴⁶ These companies prepare the necessary papers for the cargo and then take responsibility for bribes paid to customs agents in Côte d'Ivoire, while the driver takes care of the police and gendarmes. *Societes de convoyage* are only used for perishable commodities from the Sahel. There exists real competition between the *societes de convoyage*.⁴⁷

⁴⁵ If not laden, drivers in Mali pay 500 CFA francs at most checkpoints, and 500 – 1000 CFA francs in Côte d'Ivoire, but at three Malian (Senou, Boubouni and Sikasso) and four Ivoirien (Pogo, Ferke, Bouake and Yamoussoukro) posts they have to pay 1,000 CFA francs. These posts charge 2,000 CFA if the lorry is loaded. At each post there are three services: PDG. Between Zegoua (Mali) and Pogo (Côte d'Ivoire), there are three border control posts: a Malian gendarme post at Zegoua, an Ivoirien police and gendarme posts at Pogo, at each of which the trucker pays 5,000 CFA francs. Then they choose one of the *societes de convoyage* at Pogo to which they pay 75,000 – 100,000 CFA francs in exchange for which the *societe de convoyage* deals with livestock paperwork and bribes for agents of the Livestock Service and, more importantly, the customs agents. Sometimes Ivoirien customs agents push the *societe de convoyage* agents aside and demand bribes directly from the Malian traders. In addition, the driver has to pay 2,000 CFA francs per police or gendarme post within Côte d'Ivoire.

⁴⁶ Bribes for small-ruminant shipments exceed those for cattle because several owners tend to travel together in a single lorry provoking police to ask for bribes because the number of passengers then exceeds the number specified on the lorry's *carte grise* and because the owners typically do not hold *cartes de sejour*.

⁴⁷ For a detailed analysis of bribes paid, by PDG service, and in the context of overall marketing costs, see to Cook (forthcoming).

A 1993 study⁴⁸ estimated the total cost of losses to truckers and shippers transporting goods in transit from the ports of Abidjan, Lome and Cotonou to the landlocked CEAO countries due to delays, bribes and customs escorts at more than 15,000 million CFA francs in 1989. One informant for the current study expressed the extent of bribery in relative terms, at approximately twice the resources need to maintain the international road network.

4.1.3 Delays and extortion on routes between the Sahel and Tema

Most Sahelian lorries travelling to Ghana's major port of Tema, near Accra, are Burkinabe. Mali has no border with Ghana and thus more tenuous trade links. However, in fact, one finds few Sahelian lorries at all in Ghana. Ghanaian lorries carry most of the freight between Ghana and the Sahel. Of 15 southbound lorries witnessed crossing the Burkinabe-Ghanaian border, 14 were Ghanaian. One empty Burkinabe lorry was travelling to Ghana for repairs, which are cheaper in Ghana.

One of the 15 lorries carried scrap metal. All the others were empty. However, as soon as they crossed the border, they stopped to load cattle that had crossed the border on the hoof, presumably to evade the 3,000 CFA franc per head FODEL tax. If they do not find cattle, a variety of other agro-pastoral commodities awaits them in northern Ghana, so that those drivers with some patience can usually find a backhaul load.

An empty Ghanaian lorry leaving Ouagadougou for the Ghanaian border pays a 3,000 CFA-franc bribe to the policeman but the bribe takes only a minute or two to administer. The driver also makes a 5,800 CFA-franc payment to OTRAF, for 3,800 CFA francs of which he receives a receipt. Just before crossing the border, he pays bribes of 3,000 CFA francs to the gendarmes, 1,000 CFA francs to the customs and 3,000 CFA francs to the police. Having crossed the border, he pays the Ghanaian customs 2,000 cedis (approximately US\$1.00 or 500 CFA francs). This takes only a few minutes. However, when leaving Burkina Faso laden, the Ghanaian customs takes about four hours, but the Burkinabe customs takes at least eight hours. Checks of the cargo are cursory, most of the time is spent redoing paperwork.

Usually the lorry is unladen and the trucker pays no other bribes on his way south. When loaded, he pays 1,000 cedi fines before and after Bolgatanga and at Tamale.

Three customs posts lie between Tamale and Kumasi at each of which a cargo that infringes the rules will attract bribes of up to 10,000 cedis from customs agents. Along the same stretch, there are more than six police posts. Police demand no bribes for empty lorries but will check southbound lorries for stolen cattle. Where necessary, bribes to police officers are smaller, of the order of 2,000 – 4,000 cedis at each post. However, a driver claimed that the police are more easy-going than the customs officers, so that if a driver doesn't have the money to pay a fine for overloading, he can pay the next time he passes. This laxity seemed

⁴⁸ UEMOA, La Commission, DATCITT (1997: 29) cites the study as *CEAO 1993 Etude approfondie des entraves de procedure aux échanges intracommunautaires dans les Etats membres de la CEAO* prepared by Aguichard, avril.

to be changing in 1998 upon the appointment of a new Inspector General of Police with a reputation for discipline

The Kumasi – Tema road has few control posts and those that exist seem *very pro forma*

Ghana's GPRTU has its own union police to check that income tax has been paid and inspect vehicles. They also check number of passengers, first aid boxes, fire extinguisher and warning triangles. Where they don't find these items the driver may give them a 500 cedi dash

The bribes are significantly lower and the delays significantly fewer and shorter than in Côte d'Ivoire. However, they would undoubtedly somewhat be higher, more frequent and longer if the lorries involved were not Ghanaian. Nonetheless, the asphyxiation of trade witnessed on the road to Abidjan is not evident in Ghana

4.1.4 Northbound delays

Northbound journeys concern different freight than those in the southbound direction. Lorries travelling north haul imported goods and bulk commodities, as well as those produced in coastal countries, including agro-forestry commodities. Although some agricultural commodities travelling north are perishable, northbound delays do not concern *societes de convoyage* but rather "customs escorts"

ECOWAS' TRIE legislation should require the shipper to post a bond and then travel unimpeded to the border or to some appointed place of payment of duty within the country. However, Customs Services in these countries have never adopted this practice. Instead, they impose an escort on goods passing through their territory on which they have not yet collected duty

The customs escort takes the form of a customs agent travelling with the lorry at the shipper's expense to guarantee no interference with the cargo along the way. A single customs agent can accompany several lorries but assembling a convoy takes time, so lorries are delayed or the shipper has to pay extra for an agent to travel immediately with his shipment. The mobile agent does not, in practice, enable the lorry to escape the attentions of the police or gendarmes, and even other customs agents may delay the shipment

In comparison to Côte d'Ivoire, Burkina Faso believes it has a much lighter system of controls and checks. Convoys of lorries containing imported cement, wood or rice can travel without a customs officer, subject only to checks by mobile agents. Escorted convoys undergo consolidated PDG checks to speed up their journeys⁴⁹

⁴⁹ The Burkinabe Customs Service has most problems with lorries in transit along the Mali-Togo route. The lorries are overloaded but claim that the Burkina Faso agents have no authority to interfere with them because they are in transit and thus beyond Burkinabe law. It is often impractical to unload them to verify their contents. Therefore such lorries tend to

Mali has decentralised its customs operations so, rather than obtaining customs clearance at the border – packing and then repacking the cargo – a trader can choose to do so at, for instance, Mopti. However, northbound shipments insisting on this service must wait for a large enough number of vehicles with the same destination to cumulate in order to justify a customs escort from the border post of Zegoua to Mopti.

To avoid the customs escort, the *grille plombe* system can be retrofitted onto most lorries. This is a metal grill that fits over the top of the open-topped lorries that commonly carry agricultural commodities in West Africa. A strong metal cable passes alternately through loops in the grill and the lorry itself and a customs agent seals the two ends of the cable with a lead seal, identical to the seals used on, say, containers sealed for customs purposes. The *grille plombe* system has no official regional standing at present. It has the support of the Ivoirien government and of Burkinabe cereal merchants. However certain governments, including that of Mali, oppose it, at least provisionally, fearing that it may prove difficult or expensive to retrofit their old fleets of lorries to accommodate this system.

The customs-escort system is costly and expensive, and at the border between Côte d'Ivoire and either Burkina Faso or Mali the shipper must redo the customs paperwork which differs between Côte d'Ivoire and these other two countries. Northbound trade displays little evidence of regional homogeneity. Between Abidjan and Bamako, a trucker spends a total of about 16 extra hours in travel time, largely due to customs formalities, and time spent at the border can exceed a day.

Further delay may occur at the final Sahelian destination if the shipper of the merchandise does not appear promptly to claim it. Often he prepays only half of the transport fees and has the right to watch freight unloaded to check its state before paying the other half. In such cases, the driver can only wait for the shipper to arrive.

As for shipments from Tema destined for Sahelian destinations, the Ghanaian customs at the Burkinabe border takes about four hours, but the Burkinabe customs takes at least eight hours. Truckers say that checks of the cargo are cursory, most of the time is spent redoing paperwork applicable in Ghana to meet Burkinabe regulations.

Ghanaian MRT officials note that Ghana adheres to the ECOWAS protocol on the reduction of checkpoints and that at the October 1998 meeting of ECOWAS' High Committee on Land Transport, Sahelian countries commended Ghana as one of the countries that has cut down on checkpoints.

4.2 Port delays

4.2.1 Port delays at Abidjan

be escorted to avoid any jiggery-pokery. The "disappearance" of lorries in transit is thus now rare.

When more than 50 lorries laden with cotton arrive daily at Abidjan's port at Vridi at the height of the cotton-shipping season, they may encounter delays unloading because of a lack of warehouse space. Delays may extend to 15 days. Loading schedules and storage patterns for different categories of cotton determine which lorries unload when. Drivers complain that they may wait while space is free because it is allocated to a type of cotton different to the one their lorry is carrying. In other seasons, unloading the southbound cargo does not provide exceptional delays.

Having unloaded, drivers ready to take a northbound cargo from Abidjan port can wait for up to a month. They get freight in Abidjan in one of several ways. Some well-organised owners have representatives in Abidjan who find them northbound freight before their lorry arrives. Some brokers, who may also be freight forwarders, contract with groups of lorry owners or unions to find freight for them. Of those drivers who unload without having the next load lined up, about 10 percent will leave the port and go into town and look for freight there. The other 90 percent who wait at the port can register with EMACI or CBC when they arrive at the port. In principle, EMACI allocates freight to lorries in the order in which they registered. As this costs nothing many drivers will do this anyway. However, they claim that, in fact, they have to bribe EMACI agents to get a load, particularly when a lot of Malian lorries are waiting at the port.

The allocation of freight to lorries in the order in which they arrive, as carried out by EMA for Malian freight and by CBC for Burkinabe freight in the ports where they operate (and also by GPRTU for all freight at Tema) does not compromise trucking efficiency in the short run. Rather it merely rations the excess supply of road-haulage capacity. However, in the long run it has the insidious effect of guaranteeing freight to all lorries on an equal basis, regardless of their state of repair and of the wishes of the shipper. Thus the "order of arrival" method of allocating trucks to freight means that older, more decrepit, vehicles can depend on a minimum amount of freight coming their way. At the margin, this support keeps them on the road when the owner might otherwise quietly retire them to the scrap heap.⁵⁰

At Abidjan port, truckers pay a 1,500 CFA franc parking charge while waiting outside the customs yard, 2,500 CFA francs inside. The facilities provided are untarred, poorly drained and overpriced (Republique du Mali, Ministère des Travaux Publics et des Transports, Direction Nationale des Transports 1998b: 24). Non-Ivoirien drivers waiting for loads at the Abidjan customs park state that they feel that they cannot leave the park without fear of harassment from Ivoirien officials. Even within the park there is fear of theft and extortion.

⁵⁰ Observing the system of "waiting one's turn" observed by the cargo office at Lome port and by the unions elsewhere in Togo is undeniably the fundamental factor in keeping the least efficient truckers in business. As long as this rule substitutes for competitive mechanisms, it provides perverse incentives. It permits all transporters to maintain a minimum level of activity in times of crisis, but eliminates all motivation for them to compete and raise their productivity. Moreover, it is not surprising that the [more efficient] formal sector would like to see this system eliminated but that the [less efficient] informal sector argues for its continuation (Adolehoume 1992: 184).

Once a driver has found a load, a 24-hour laissez-passer to enter the port for loading costs 5,000 CFA francs. Burkinabes obtain one from OTRAF, presumably EMACI issues them for Malians. However, it takes about four hours for Malians to obtain the laissez-passer. In some cases, a trader may look for a lorry at short notice and therefore only consider lorries the drivers of which already hold a laissez-passer. Opportunistic drivers may therefore take the risk of investing in the purchase of a laissez-passer in the hope of being more competitive though, on any given day, this investment will not pay off. This is an example of how port bureaucracy leads to unnecessary extra costs.

Owner-drivers constitute an estimated 5 percent of the Malian drivers encountered at Abidjan docks. They clearly have the liberty to take any load they care to. Where the driver is not also the owner, some owners may have enough confidence in their driver to allow them the freedom to decide whether to accept a cargo. However, most owners do not have this level of confidence, and require their driver to phone and consult them with details of a proposed cargo, clearly a more cumbersome and less competitive option to the shipper who has cargo ready to transport. Unsurprisingly, owner-drivers are more likely to bribe EMACI agents, or any anyone else, to get a cargo and keep their lorries productive. Drivers who are not also owners but who are paid by the trip also have an incentive to hustle for cargo, those who are paid partially by the trip less so. Those drivers paid at a flat monthly rate have the least incentive to take the initiative to find cargo. Bribing adds to port costs but does not change the average time spent by lorries at the port – it merely results in a redistribution of delays between vehicles.

His lorry loaded, the driver drives it to the waiting area for the vehicles awaiting the final customs clearance before departure. Once loaded lorries usually leave within 24 hours but incorrect paperwork or the inability of the lorry owner to provide expenses (including money needed for bribes) can delay departure for another couple of days. No heavy-goods vehicles may travel within Abidjan city limits between 16 00 and 09 00 h. Ignoring this constraint, customs agents at the port finish their final inspection of the cargoes in the lorries forming part of the convoy at 14 00 h. After this, drivers have to obtain their “expenses fund” (to cover the costs of fuel, bribe money, per diems, etc.) from the owner⁵¹, get fuel and take care of other pre-departure matters. These include paying a fee of 10,000 CFA francs to OTRAF (for Burkinabe lorries) or 15,000 – 25,000 CFA francs to CSM (for Malian lorries), whether or not the organisation allocated the freight to the lorry. By this time, it's too late to avoid the curfew and the lorries have to spend another night in Abidjan. However, in reality, if the convoy were to beat the curfew they would not travel all night because of the threat of brigandry on roads in Côte d'Ivoire, in contrast to most other West African countries.

4.2.2 Port delays at Tema

In Ghana, delays in finding freight vary according to the location of the lorry. Many lorries begin northbound journeys at Tema, Accra's port, through which most of the country's imports pass. Importers recruit forwarding agents to oversee the progress of their freight.

⁵¹ Burkinabe drivers can sometimes obtain this through OTRAF on the shipping agent's behalf.

through various bureaucratic steps involving the Shippers' Council, the Ministry of Trade and Industry, the IRS, the Customs, the shipping agent and the Ghana Ports and Harbour Authority. None of these provides delays to truckers waiting for a chance to get a load and leave. The total wait to retrieve freight from the port need not exceed four days, an average for all these steps is about three days.

An importer may allocate a shipment directly to a trucker, or his freight forwarder may do so. Alternatively, either may ask GPRTU to find a lorry, in which case the allocation to a trucker takes place on an "order of arrival" basis. However, this does not increase the average delay experienced by truckers, which depends on the average number of lorries and the average number of shipments for them to haul.

Once a lorry has loaded the freight, and is ready to leave the port, port security officials assert their right to repeat an examination already done by customs officials. This can take 2 – 3 days. The bribe required of the importer to avoid this delay is generally low – no more than 50,000 cedis (US\$ 25) – but represents as much as 40 percent of total bribes paid in extracting freight from the port.⁵²

When such delays occur, drivers can claim demurrage of between 50,000 and 100,000 cedis from the owner of the freight. A forwarding agent claimed that most hauliers do claim this compensation, a GPRTU representative echoed this claim but said that, in practice, importers currently never grant it. They can get away with not paying it because of the supply overhang in the Ghanaian road haulage market: truckers will always come back looking for more work, even if they receive no demurrage.

Other lorry drivers deliver a load in northern Ghana – or arrive in the north of the country from Burkina Faso – and then search a backhaul load.

4.2.3 A comparison of port delays over the 1990s

Table 6 shows the typical times taken at the start of the 1990s for successive steps in processing and shipping cargoes from their clearing customs at the ports of Abidjan and Lome to their delivery in Bamako and Ouagadougou. The "control stops" (*arrêts controles*) are presumably within the port whereas the "route delays" (*delais de route*) are outside.

⁵² These are average figures that vary with the availability of freight which, in turn, varies with port throughput.

Table 6
 Typical 1990 delays on various routes from clearing customs in port
 to the delivery in the Sahelian city (days)

	Abidjan – Bamako	Abidjan – Ouaga	Lome – Ouaga	Lome – Bamako
obtaining & loading lorries	6 – 7	4 – 5	1 – 2	4 – 5
control stops	2 – 3	2 – 3	1 – 2	3 – 4
route delays	3 – 4	3 – 4	2 – 3	4 – 5
TOTAL	11 – 14	9 – 12	3 – 7	11 – 14

Source CEAO, Secretariat General, Direction du Developpement Industriel (1991 103)

Note how much swifter the Lome – Ouagadougou route was than the others. The difference between the time taken from Abidjan to Ouagadougou and Abidjan to Bamako is due to “obtaining and loading lorries” rather than extra time on the road. Abidjan is slower than Lome for delays within the ports.

Table 7 reproduces from a 1994 study a table showing port delays for freight destined for Burkina Faso.

Table 7
Delays at three West African ports for freight destined for Burkina Faso (days)

SOURCE OF DELAY	Abidjan	Lome	Cotonou
- customs & transit authorities	10	3	7
- port administration	5	5	5
TOTAL	15	8	12

Source (Republique du Mali, Ministère des Travaux Publics et des Transports, Direction Nationale des Transports (1998b 23), citing *Etude du Departement des Statistiques et Etudes Economiques du Port Autonome d'Abidjan, sur le trafic en transit* (1994)

Again Abidjan has the heaviest delays. In the early 1990s, the Ivoirien national shipping line, SIDAM, was criticised as the main source of delays and corruption at the port of Abidjan. The Ivoirien government dissolved SIDAM in the mid 1990s.

Table 8 summarises 1998 estimates of delays and costs of using different ports from the perspective of a Ouagadougou-based importer. Abidjan remains the port with the longest delays.

Table 8
Costs and delays of round trips to West African ports in 1998
from a formal-sector, Ouagadougou-based perspective

Port	"Route costs" ¹ (CFA francs)	delays (days)	Comments
Tema	250,000	4	OTRAF is setting up an office
Lome	300,000	7	OTRAF has an office
Abidjan	500,000	14	OTRAF has an office
Cotonou	500,000	7	Bad road means routing via Lome

Notes 1 "Route costs" include the costs of fuel, per diems (driver 2,000 CFA francs/day, apprentice 500 CFA francs/day), minor repairs and punctures, and bribes

2 See appendix 5

Source Executives of COFAMA, Ouagadougou

Since the dissolution of SIDAM, delays at Abidjan may now be slightly shorter, but the corruption persists and importers must fulfil many requirements to obtain their goods. According to CBC, customs inspections of imported goods currently take at least 48 hours and the entire port procedure takes up to 25 days. However, if communications are good, the relevant documents arrive on time, and road transport is available, this wait can usually be reduced to as few as 10 days. In general, CBC estimates that lorries face 3 – 15 days waiting at the port of Abidjan. CBC proposes one-stop processing of all port procedures to reduce the formal costs, corruption and delays currently involved.

In contrast, at Lome there are few delays, and an importer can hope to liberate his goods from the port in 1 – 2 days, and there are daily customs escorts to enable him to truck his goods north through Togo to the Burkina border. Containerised imports may take longer.

to liberate from Lome because of a shortage of lorries specialised in carrying this type of freight

The port of Cotonou suffers from poor management and but it takes only about 5 days to get freight out of the port. Relative to others on the West African coast, this port has a good computerised management system

Tema is a "simple" port, easily accessible from Ouagadougou and other parts of central Burkina Faso on a good road, with the exception of about 150 kilometres to the north of Kumasi. It is also cheaper than the other ports with relatively little corruption and relatively short delays. CBC and Burkinabe Chamber of Commerce have recently opened offices there

In conclusion, Abidjan remains the port with the longest delays from truckers' points of view. However, it remains the most important port in the region, partly because Abidjan and the rest of Côte are themselves significant destinations, partly because – having attracted many shipping companies to serve it frequently – it has better links to the rest of the world than its competitors

4.3 A move towards homogeneity of documentation the Inter-states Way-bill

Since 1st June 1998, a new system has come into force for handling Malian, Burkinabe and Nigerien freight arriving by sea at Abidjan, Lome and Accra. A single shipping document, the "Inter-states Way-bill", using the same format for all three states carries all information needed by the CBC, the forwarding agent, the Customs Service and the transporters. (See annexe 3) Prior to this date, importers needed up to three documents to meet these needs. Additionally, all corresponding data are now computerised for all ports. This homogenisation represents a significant step towards regional integration

4.4 Discrimination and recrimination

As documented above, non-Ivoirien lorries face difficulties travelling in Côte d'Ivoire. Similarly, but to a lesser extent, Ivoirien-registered lorries have problems in Mali and also in Burkina Faso (although they have few profitable incentives to go there). In general, lorries have fewest problems travelling in the country in which they are registered, regardless of the national origin of their freight.⁵³ Ghana has historically been relatively easy for foreign-registered lorries but increasingly for Ivoiriens it has become more difficult. One explanation for this invokes an increasing spirit of recrimination against perceived discrimination against non-Ivoiriens in Côte d'Ivoire

⁵³ The place of registration of vehicle is most important in discrimination. The citizenship of the driver counts for less. In fact, in at least 90 percent of cases, the nationality of driver and vehicle matriculation match. However, Ghanaians or Ivoirians, for example, may drive Malian vehicles

Shippers, drivers and lorry crews – as individuals – also have difficulties in countries other than their own. Abidjan stands out as a difficult place for non-Ivoiriens. The port of Abidjan is like a prison for non-Ivoirien lorry crews. They must stay near their lorries to protect them and Ivoirien PDG daily verify their documentation in order to solicit bribes. A Ghanaian driver interviewed in the Vridi lorry park claimed that Ivoirien policemen had recently mugged a Sahelian livestock exporter just after he had received payment for his export herd.

Ghanaians appear to suffer most at the hands of PDG in other countries, undoubtedly because they have a comparative advantage in trucking and do a considerable amount of haulage business outside their own borders, probably because of their lack of fluency in French, and perhaps also because of their propensity not take abuse lying down. Two sources referred to the beating and torturing of Ghanaian truckers, but the most infamous cases referred to took place outside the area of study, in Togo and Benin.

4.5 Competition between routes and modes of transport

Some observers argue that Abidjan risks losing trade to other ports because of harassment of non-Ivoirien drivers and vehicles within Côte d'Ivoire and extortion of bribes from truckers and shippers. However, as long as Côte d'Ivoire provides access by good tarred roads to a wide range of shipping options at the port of Abidjan, PDG agents can still expect to be able to extort bribes with impunity. If, however, Sahelian countries find that alternatives provide similar advantages, they will begin to shun Abidjan and use other ports.

One factor that will reduce the delays is competition along different trucking axes and between transport by different modes. Two examples illustrate the new trend towards vying trade routes. Firstly, the Ghanaian market and the port of Tema have become increasingly attractive to Burkina entrepreneurs. For example, in the mid 1990s Ghana removed both import duty and a quarantine requirement on Sahelian livestock. Truckers encounter limited delays and extortion along the main road south through Ghana from the Burkina border. Much of the road has recently been upgraded and traffic can travel freely at night (unlike in Côte d'Ivoire, to the west) without being in convoys (unlike in Togo, to the east). Passage is thus swift and easy, leading to increasing flows of Sahelian products to meet the demand of the Ghanaian economy, which has grown rapidly during the 1990s. Moreover, in early 1998, a meeting of the heads of state of Burkina Faso and Ghana resulted in the allocation of space at Tema to Burkina Faso to enable it to expand its trade through this port, thus providing further incentives for Burkina Faso to diversify its trade corridors.

Secondly, within three years, the tarring of the road from the Guinean railhead at Kankan to Bamako should be completed. Within a similar period of time, one or two roads from Bamako to Dakar should be completely tarred (via Kayes and/or Kineba). This will widen the trade-route options for western Mali, which will then have two rail-road links via Dakar and Conakry, as well as the road and rail-road connections to Abidjan and Dakar. In addition, the tarring of the road from Gao to Tillabéri will open up alternative trade routes for northeast Mali through Niamey to destinations in Niger, Benin and Nigeria in West Africa's eastern corridor.

In a pessimistic scenario, the PDG agents working on these alternative routes may raise their levels of extortion to equal those in other countries, such as Côte d'Ivoire. Combined with the disadvantage of transshipment on road-rail connections and with poorer port service by shipping companies to smaller ports, this may not allow significant rivalry to emerge. However, donor conditionality on free-market competition, private-sector lobbying and the emergence of civil society within gradually more democratic polities should all contribute to more transparent markets with sanctions levied against those demanding irregular payments and with even those at high levels of government held accountable for their unofficial activities.

4.6 Potential solutions

4.6.1 Technical solutions

If the political will were there, sophisticated inspection of freight at borders and ports could largely meet national security needs and allow international freight to pass quickly. The Ivoirien Directeur des Transports Terrestres suggests the use of available laser technology to scan loads quickly for hidden contraband. Additionally, computerised information systems, such as those currently being put in place for the Burkinabe Customs Service, take note of cargoes arriving at each border crossing and allow the service to track them to their destinations. This would allow a transit shipment to be followed on its path across the country and the likelihood of illicit unloading of cargo to be estimated as a function of unusual delays, reducing or eliminating the need for customs escorts. Instead of customs escorts, a limited number of mobile squads of PDG agents – perhaps three of each – could perform spot checks anywhere in the country. Multiple checks within Abidjan after customs clearance at the docks would be eliminated.

4.6.2 Political and administrative solutions

UEMOA countries have agreed to common border controls for their PDG services. These would have two big advantages for regional trade. Firstly, they would provide a streamlined one-stop shop that would replace a succession of time-consuming procedures. Secondly, they would offer a set of checks and balances through the automatic surveillance that one service would have over another and that counterpart services from neighbouring countries would have over another, thus reducing opportunities for extortion. The Burkinabe Customs Service confirmed that it is working towards joint border controls with those of its UEMOA neighbours countries.

The Co-ordinator of Burkina Faso's PASEC-T favours bilateral negotiations where pairs of countries can more easily reach an agreement on how to expedite central-corridor road transport that corresponds to their mutual interest than as part of an ill-fitting regional treaty. As bilateral negotiations begin to achieve a reduction in the number and the severity of delays, say five years later, regional organisations can review the nature of the agreements and extract the common elements that might then plausibly be enshrined in multilateral

treaties. In this spirit, Burkina Faso should start talks with Ghana aimed at creating joint border controls across their common border as well.

The West African Enterprise Network is starting an *observatoire* that will follow and report on trucking delays and costs (including bribes demanded) along most major roads in the central corridor. It will submit quarterly reports to the heads of the PDG services, transport directors and other high-ranking officials in each country and also to donors. The system promised to provide PDG heads with information on their agents' activities to a degree to which they have never previously had access. The *observatoire* reports should put pressure on them to do clean up areas of abuse and, equally, to reward agents who are clearly doing their jobs well. At the same time as these reports begin to circulate, the heads should begin to require their agents to make public on a quarterly basis the statistics on the lorries they have stopped for more than an hour, the reasons why and the steps taken. In addition, truckers unions and the Chambers of Agriculture and Commerce in all concerned countries should receive copies of the *observatoires* reports.

In 1992, the USAID/World Bank Livestock Action Plan (LAP) for increased efficiency in livestock marketing in the central corridor suggested a system of rewards for reducing extortion within the PDG services and, in contrast, sanctions against the most corrupt agents. At Nouakchott in 1993, governments of the states concerned met to draft their own policy in this area. This policy drew heavily on many elements of LAP but conspicuously omitted any reference to carrots and sticks aimed at altering PDG behaviour, probably because this seemed too radical a step at a time when open debate of such matters within civil society remained limited. Therefore, governments have taken little note of LAP's suggestions in this area.

However, since 1992, these same governments have taken great strides to liberalise their economies, recognizing the importance of the private sector in generating economic growth, particularly through regional trade. Burkina Faso, Côte d'Ivoire and Mali seem committed to the common market that UEMOA has set up to join their economies together. In addition, transport observatories now offer the chance of monitoring the conduct of PDG agents along various trade routes. In this changed climate, it is appropriate to raise the LAP suggestions once more. Conspicuous praise, promotion and even financial rewards for honest work and efforts to step out corruption (as reflected in *observatoire* data⁵⁴) would change the incentive structure that currently encourages personal gain through graft, as would explicit public condemnation, demotion and even fines or imprisonment of those revealed as prime offenders. To the extent that observatory data may be used for this purpose, it becomes important that some important official, perceived as disinterested, should vouch for their veracity, or be available to do so, should the need arise. Such a guarantor or ombudsman would provide credibility that would be necessary, though not sufficient, to mobilise civil society behind initiatives to alter the number of checkpoints and the behaviour of those manning them.

⁵⁴ For this reason, it would be essential that the *observatoire* be seen to be accurate and objective.

4.7 Limits to the ability of truckers to respond to an absence of delays

Taking northbound and southbound segments and the port delays together, truckers indicate that delays limit them to one or two round trips between ports and Sahelian destinations each month, rather than three or four that they could theoretically do. However, before blaming the PDG services for this source of inefficiency, note that the truckers know that if they move more quickly there would be an overhang of trucking capacity on the market. Informal-sector truckers optimise their behaviour and equipment to take account of long delays. Their vehicles do not have to be able to turn around quickly and make another 2,500 kilometre round-trip journey without breaking down. They can use the delays to make repairs to their old lorries. In this context of lowered expectations, they have a trade-off of delays against bribes that leans towards delays. They accept that another 50,000 CFA francs of bribes could halve their travel time from the Sahel to Abidjan, from 48 to 24 hours, but they apparently choose not to make extra payments of this value. The low annual distances covered of 30,000 – 50,000 kilometres reflect an outlook of operators with low amortisation costs. Indeed, as mentioned above, they may run at a loss because of their lack of accounting and because they feel that the lorry is already amortised.

In contrast, the formal-sector trucker who wants to increase his distance covered will pay the extra bribes to keep his rig moving. His lorry could indeed do three round trips per month on a sustainable basis, so he has a different equilibrium between time and money. However, he is frustrated because even at higher rates of bribery there is a non-negligible irreducible minimum of delays that he must accept. It is the formal-sector trucker who has the most to gain from fewer delays to road haulage.

5 Backhaul freight

5.1 The status quo

Observers of the West African road transport market have noted a low proportion of trucks loaded with cargo on southbound journeys. Running empty, they declare, reduces the number of kilometres on which trucks earn revenue and thus the profitability of trucking. At the same time, potential shippers have cargo extending over a wide area with poor communications and would particularly benefit from information that allows them to transport it to markets. They therefore suggest an information system to allow them to find freight that they believe Sahelian producers and businessmen want to ship to coastal markets.

However, in some cases, truckers do not even look for backhaul freight. At least in some seasons, what little cargo exists is difficult to find, road-transport rates are low, hassles at PDG roadblocks are significantly higher for laden lorries than for empty ones, and profitable northbound freight awaits at coastal ports. Under such conditions they head directly south as soon as they have unloaded their northbound load, without so much as considering a southbound load.

A lack of interest in backhaul freight is particularly true for modern-sector companies. They have good contacts in cities such as Abidjan that find them lucrative northbound freight so that they can load as soon as they return to their southern bases. They may also have good contact in cities such as Bamako and Ouagadougou but these are unlikely to provide them with a year-round stream of backhaul freight. Thus COFAMA, a Ouagadougou-based company, sends 80 percent of its lorries back to the coast empty. In the other 20 percent of cases they carry agricultural commodities such as cotton, rice, cotton-seed cake and sesame. However they shun livestock which they judge more trouble than it's worth. The Director-General of COFAMA explained that he will delay a truck by, say, one day if there exists a backhaul possibility. Otherwise they just truck south empty. There is a limited amount of backhaul freight available, it's not worth their while trying to find it, and it is of marginal importance to the company's bottom line.

Owner-drivers in the informal sector have a greater incentive to find and carry backhaul freight. They typically do not have an agent in a coastal port who finds them freight and who can ensure that they will be able to load again as soon as they arrive there. So they feel less incentive to rush back south. Typically having a slower turnaround time than formal-sector operators, they may judge that if they will have to wait somewhere they might have a greater comparative advantage in the Sahel. And they may consider any extra revenue load better than none, despite the extra PDG hassle that they undergo when laden. Because of their acceptances of slow turnaround times, they are more accepting of delays and stand to benefit from the roadblock haggling from which they may extract marginal reductions in PDG bribes, which they can pocket.⁵⁵

The return to investments to find backhaul freight also varies with the efficiency of the existing information system. In some Malian towns there are informal-sector transport brokers who play an active and quite efficient role in putting potential shippers and available truckers together. In such circumstances, the owner-driver's time spent waiting for cargo may be well spent.

However, backhaul freight can generate friction between employed drivers and owners of lorries. One driver interviewed said he had taken cattle as a backhaul load on his own initiative – at a low rate because it was all that was available – but that, when he offered the money to the owner of the vehicle, he found the revenue so derisory that he felt sure that the driver had pocketed part of it. From then on, he had taken no such initiatives. The presence of an information system seems unlikely to alter the behaviour of drivers such as this one.

For much of the year in certain parts of the Sahel, those drivers who accept backhaul freight take cotton.⁵⁶ Although slow to pay, the cotton companies do so well and reliably. Under

⁵⁵ Where informal-sector truck-owners structure their drivers' payment to encourage them to maximise capacity usage, non-owner-drivers also have an incentive to find and carry backhaul freight. Foremost among this second category is the driver whose contract with the lorry owner allows him to keep the profits from backhaul freight – or whose boss doesn't question him too closely about what he did on the return trip. In Togo, it is understood that the driver has the right to profit from backhaul freight, if he can find any (Adoléhoumé 1992: 89).

⁵⁶ Cotton accounts for 90 percent of their southbound freight.

these conditions, truckers prepared to take backhaul loads will consider few other loads, particularly if they obtain contracts to haul cotton south and fertiliser – for next year's crop – north. Over the years, the season for cotton shipments has lengthened with the duration of the harvest, on the one hand, and with increased volumes of cotton harvested and stored, on the other. Thus a sizable proportion of truckers taking backhaul freight may not, in practice, be open to opportunities with details of which an information system might provide them.

At least in some regions and in some seasons, heavy rains make untarred roads impassable or sweep away bridges. The majority of the agricultural surpluses from these enclaves do not enter the regional market until roads become passable again. Parts of Sahelian countries suffer from unpredictable isolation in this way, but the effect is more severe in higher-rainfall areas. For instance, roads in Ghana's Upper East Region annually turn into quagmires meaning that, once the first few lorries have become stuck in the mud, agricultural surpluses from this region rot *in situ*. Similar situations doubtless occur in Côte d'Ivoire, although to a lesser extent because of its more extensive system of tarred roads. We may surmise that farmers in areas liable to be cut off alter their crop mix to emphasise those that store well. An information system will not remedy this situation.

An information system will have a less beneficial effect on the road-haulage market as long as regulations and practice in each country limit the scope of lorries registered in others. At least until recently, vehicles registered outside either Burkina Faso or Mali were either forbidden to load backhaul freight or discouraged to do so. This protected the hauliers of the country in question but clearly decreased the choice of lorries available to potential shippers. Then Burkinabe livestock traders successfully lobbied to allow foreign lorries to pick up southbound livestock within the country. The truckers' union, OTRAF, accepted this as long as the lorry paid 10,000 CFA francs to its local branch for the right to do so. More generally, foreign lorries now find less hindrance in Sahelian countries to their carrying backhaul freight. Still, they are not formally allowed to leave the "international routes" designated by the TRIE convention to find it (though as long as OTRAF receives its 10,000 CFA francs this seems to pose few problems). In practice Ivoirien truckers lack interest in road haulage to Burkina Faso because of the low profitability of the large proportion of northbound freight for which CGP sets low trucking rates. They therefore contribute relatively little to any market for backhaul freight. More Ivoirien truckers go to Malian destinations. However, once loaded, they then have more difficulty at PDG checkpoints than one a domestically-matriculated one. These reasons limit the number of trucks that have the ability to react flexibly to new information on potential loads that an information system might offer.

The net result of the existing informal system of finding backhaul freight varies considerably from one location to another. In Ouagadougou, truckers who usually plied the route to Abidjan stated that 60 – 70 percent of those waiting for a week find a cargo.⁵⁷ However, it seems that relatively few choose to do this because apparently only about 20 percent of Burkinabe lorries travel south with a load.

⁵⁷ All such figures are subject to seasonal fluctuations.

An interview with a group of Malian drivers waiting for freight at the Port of Abidjan in October 1998 revealed a wide diversity of backhaul-freight strategies. Of eight drivers, four had not carried backhaul loads during 1998 and two had taken loads on less than 20 percent of their backhaul runs. In contrast, one had taken a backhaul load on each of 15 roundtrips that year and one had done so in two-thirds of cases. On average, however, they had carried backhaul loads on only 30 percent of their journeys. Similarly, 14 of 15 (93 percent) lorries counted crossing the border from Burkina Faso to Ghana did so empty.⁵⁸

However, once lorries cross the border into Ghana they pick up loads, mostly of Burkinabe livestock that traders have had trekked across the border, presumably to avoid paying the FODEL livestock export tax. Indeed, within Ghana, only about 20 percent of trucks run empty southbound. In addition to livestock and cowpeas imported from Burkina Faso, they benefit from a range of domestic agricultural commodities, such as maize and groundnuts. We may suppose that several factors bring about this reversal of fortune: greater volumes of agricultural surpluses in a higher rainfall region, a lower cost of trucking making more shipments competitive in destination markets, and perverse incentives that push Sahelian livestock over the border into Ghana for loading into lorries. The first of these factors also applies to Côte d'Ivoire where we would expect backhaul rates intermediate between the Sahelian states and Ghana.

Adolehoume (1992: 160) shows that the percentage of empty backhauls varies with the distance and scale of trucking. He provides the following capacity usage figures for Togo:

- 55% for articulated lorries⁵⁹
- 75% for large lorries on long-distance national runs
- 80% for lorries plying routes between regional markets within a country⁶⁰

Truckers working within Burkina Faso or who travel to destinations outside Ouagadougou and Bobo-Dioulasso, may be able to find southbound loads if extra information is available, particularly if they have to travel through parts of the country relatively-poorly served by road transport.

All these figures vary seasonally. During the harvest period for agricultural commodities in both Sahelian and coastal countries, demand for lorries rises. The price of trucking therefore rises, making any effort spent on finding southbound freight more rewarding.

Given the foregoing provisos and the diversity of resulting behaviour in practice, it seems safe to conclude that

- some benefits would result from instigating a backhaul-freight information system
- within the trucking sector, informal-sector truckers would garner most of these
- its benefits would be seasonal

⁵⁸ The one laden lorry carried scrap metal.

⁵⁹ He assumes no backhaul freight available and 10 percent overloading on the northbound leg.

⁶⁰ Such lorries benefit from loyal clients travelling with the same lorry in both directions.

- certain countries and regions within them would benefit more than others

5.2 CILSS's pilot system

CILSS is starting a pilot backhaul-freight information system for Burkina Faso. As of October 1998, it aimed not to disseminate this information on a regional basis in order to maximise the chance that Burkinabes looking for haulage services would find them, but rather to work through OTRAF, the monolithic truckers union, to provide information about available freight within the country to Burkinabe road-haulage firms. This may be politically necessary but it also focusses attention on OTRAF which is a government-inspired and supported organisation, rather than one that necessarily corresponds to the needs of individual or corporate truckers, despite the fact that they must all be members.

OTRAF office bearers explained that they resented independent freight brokers in markets such as Pouytenga finding lorries for shippers at significantly lower rates than the union offered. However, the fact that brokers can do so suggests that OTRAF operates and defends a bloated system that represents the antithesis of the market efficiency that the backhaul-freight information system would aim to eliminate. We may question to what extent vested interests within OTRAF have an interest in co-operating with the new information system.

The backhaul-freight information system would render the market more efficient through enhanced market clearing. Such a system may

- 1 inform truckers about available freight (leaving them to take the initiative to contact shippers and compete to carry it)
- 2 inform shippers about available lorries (leaving the shippers to contact the truckers and compete for trucking capacity)
- 3 propose apparently optimal allocations of freight to lorries (i.e. also playing the role of freight broker to some degree)

In a geographically-dispersed, atomistic market with relatively slow lorry speeds and many situations where the two parties cannot contact each other by telephone, the third of these becomes more difficult.

The information system would work to oil the spot market. Ideally, an information system would bring the two prospective parties together long before a shipment took place, so that both could adjust their schedules as part of the negotiating process in order to optimise the timing of the loading, transport and delivery. In practice, uncertainties on both sides reduce the usefulness of lead times for planning: in most cases, only once the lorry has completed a delivery will it be safe to consider allocating it to its next shipment.

It is not clear how well a national prototype will meet and solve problems that a fully-fledged regional system will have to face, such as international communications, resolution of institutional incompatibilities between countries and suspicions that the system will allocate freight to carriers from some countries and away from carriers from others.

6 Improved road quality

6.1 Road funds

As explained in section 1, truckers tend to overload their lorries. They are aware that this causes additional wear and tear to the vehicles the full cost of which they bear individually in accelerated depreciation, more frequent breakdowns, more dangerous travel, and higher bills for spare parts, tyres and fuel⁶¹. They also realise that overloading their lorries increases the wear and tear on the road. However, individual truckers do not currently pay directly as a function of their use of the road, a public good.

Competition within the road-transport sector drives down trucking rates so that many truckers who cannot calculate their cost of operation, run their lorries into the ground in their drive to win business. Thus, at least in the informal sector, not only are truckers far removed from paying for their damage to the public good, many are also not even covering their own private costs from their earnings.

Thus we have two market failures. Firstly, atomistic competition without good cost information and with informal-sector economic actors willing to lose money in order to stay in business leads to personal financial losses. Secondly, a "tragedy of the commons" allows each trucker to escape payment for the damage that he inflicts on the road and for which society at large must pay. This section addresses the latter of these issues.

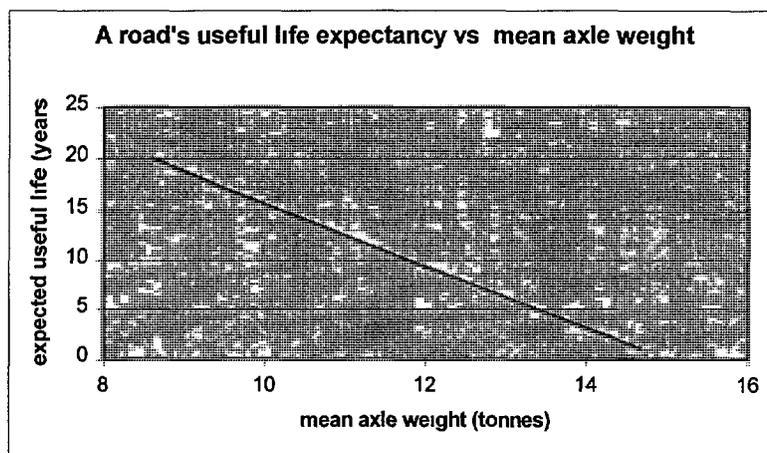
Graph 1 presents a hypothetical but plausible relationship between a road's useful life expectancy and the axleweight of the vehicles using it. The heavier the lorries, the faster the road surface degrades to an extent that it is no longer usable. Adolehoume (1992: 190) cites the work of the American Association of States Highway Officials to bolster his assertion that the heaviest trucks do most of the damage to roads:

[T]he damage done is proportional to a power of the axleweight that varies between 4 (for tracks) and 6 (for laterite and tarred roads). A vehicle with an axleweight of 13 tonnes degrades a road surface 3 – 5 times more than one with a 10-tonne axleweight.

With little control over the flows of overloaded lorries along the region's roads, accelerated degradation has taken place. Repairing these roads is the job of the Ministry of Transport in each country. However, in these ministries in many West African countries, the services responsible for upkeep work, typically the Public Works Departments, have historically suffered from a lower status than that of the services responsible for the construction of new roads. This led to less emphasis placed on repairs and, consequently,

⁶¹ However few, if any, truckers would be able to offer a good estimate of the increased cost they incur for a given level of overloading.

Graph 1



a low rate of repair work, threatening the existing road network⁶² However, over the 1990s, partly thanks to structural adjustment programmes in the transport sector, the status of services carrying out road repairs has been raised to the same level as those services responsible for new construction, reinforcing the importance now placed on repairs and rehabilitation (UEMOA, La Commission, DATCITT 1997 21)

Following this change of orientation, countries now have the following objectives for their roads

- ensure the continued quality of existing routes as part of a permanent network
- prioritise maintenance over new construction
- collect user fees to finance maintenance
- contract private-sector companies to undertake the work
- improve government agencies' ability to plan and oversee the work done

As of 1997, Burkina Faso⁶³ and Côte d'Ivoire were among the countries within UEMOA that had done most to meet these objectives, with Mali⁶⁴ also making some progress (UEMOA,

⁶² Reconstructing a tarred road costs 3-5 times more than upkeeping it correctly (UEMOA, La Commission, DATCITT 1997 17)

⁶³ Burkina Faso now allocates 70 percent of its budget to maintaining the existing network

⁶⁴ Mali's Direction Nationale des Transports has concluded a road policy agreement with the World Bank on general policy for road infrastructure (1995-2000) in three parts

- 1 priority to road upkeep periodic upkeep on 2,200 km (roads and tracks)
- 2 rehabilitation of routes in poor state of repair on 2,200 km (roads)
- 3 construction of new roads (connecting routes and motorways)

Donors (principally the European Community) have agreed to tar any untarred segments of roads between Bamako and Kankan (Guinea), Bamako and Dakar (Senegal), Gao and Niamey (Niger), and Niono and Ayoûn el'Atroûs (Mauritania)

La Commission, DATCITT 1997 23) However, Ghana was ahead of all three of these countries in its road transport policies. The key element in its road policy is the autonomous "road fund" through which finance flows directly from various sources to meet road-maintenance needs, under the direction of a board containing a strong contingent of road users, including truckers' unions.

Ghana has had a fund for road maintenance since the 1960s. Until 1998, the Treasury controlled allocations of funds for this purpose. However, as part of World Bank conditionality, the government has recently restructured it (Ghana 1997), "ring-fencing" it so that those collecting revenue destined for this purpose pay it directly into the fund's account at the Bank of Ghana (Ghana's central bank). An act of parliament has created this independent body which can sign its own cheques. The Treasury cannot limit these funds and neither the Ministry of Finance nor the Ministry of Roads and Transport can redirect them to other uses.

The Road-fund's board has as its ex-officio chairman the Minister of Roads and Transport but the remainder of the board includes six representatives each from the public and private sectors. Private-sector representatives include the Road Hauliers' Association and the GPRTU.

Current road-fund revenue derives from tolls on bridges, ferries and the Accra-Tema motorway⁶⁵, fuel taxes⁶⁶, vehicle-licencing fees, and an international transit fee⁶⁷. Plans are afoot to extend this revenue base to include tolls on all principal roads. By June 1999, tolls will be levied on the long stretch of good road from Pogo (at the Burkina border) south to Kintampo. The Road Fund Secretariat plans to introduce such tolls for roads already in good condition, and repair roads in a poor state (e.g. between Kintampo and Kumasi) before demanding tolls on them. Truckers say that, though they do not relish paying these tolls, they are prepared to pay them in order to have well-maintained roads.

The Road Fund's revenue is allocated to the following, in order of priority:

- 1 routine maintenance
- 2 periodic maintenance
- 3 rehabilitation (for which donor financing is also available)

The Treasury and donors concert to fund new road construction, as they did before the creation of the autonomous fund.

The Treasury and the IMF have argued that a basic principle of public finance requires all tax revenue to pass through the Treasury, which should alone allocate it to its different uses. In contrast, the World Bank and the Ministry of Roads and Transport have argued – successfully – that a road fund promotes efficiency of management through rapid and

⁶⁵ The Road Fund plans semi-automatic motorway barriers, and maybe payment by smart card.

⁶⁶ Not all tax on fuel goes to Ghana's Road Fund but it receives 100 cedis per litre of diesel (Ghana, Customs, Excise and Preventive Service 1997).

⁶⁷ The transit fee seems similar to the *droit de traversee* operating in Burkina Faso and Mali.

efficient allocation of finance to meet changing maintenance needs and by giving road users – who pay the taxes and levies that finance the fund – the sense that they have a significant say in the management of their sectoral infrastructure⁶⁸

The Malian government created an autonomous road-maintenance fund in 1988. However, the fund was not able to spend all the revenue allocated to it. In 1990, on the advice of the World Bank, the government decided to reorganise the fund by transferring responsibility for it to the Direction National des Transports (DNT), financing it through a 2% tax on the value of imported hydrocarbons, and allocating these funds directly to the Treasury for allocation as needed. This solution also satisfied the IMF, which has traditionally favoured centralised control by the Treasury of all government revenue. Since then, the Treasury has given an annual, fixed and insufficient sum of 4-6 billion CFA francs to the fund for road maintenance. During this period Mali has moved to privatise most of the maintenance work on its roads.

However, this solution has provided a problem of a different nature. Road maintenance suffered because the Treasury did not disburse money quickly enough to allow punctual payment of private companies doing the work. In addition, road users and DNT complained that only a small percentage of resources generated by the sector is re-injected into road maintenance. For these reasons, a 1998 report recommends the creation of an autonomous road fund that would receive a higher proportion of revenue raised from the transport sector. It has received approval from DNT and the World Bank but the Ministry of Finance and the IMF have misgivings about this policy change. The report remained unimplemented at the end of 1998.

Burkina Faso does not have an autonomous road fund. Instead, the Treasury allocates 5,000 million CFA francs (US\$ 10 million) annually to roadworks on its network of 8,500 kilometres⁶⁹. However, plans are afoot to involve the private sector in a committee to monitor the government's maintenance priorities for trunk roads, to provide state aid to decentralised regional governments for opening up certain secondary roads, and to give responsibility to local authorities for roads of lesser importance. Truckers pay tolls on stages of road but the revenue goes to Treasury, rather than to an independent road fund. It seems that Côte d'Ivoire maintains its roads in a similar manner.

The introduction of an autonomous road fund and the raising of revenue directly for its use need not have any effect on tax revenue available for other uses. Such a change can be fiscally neutral without compromising the efficiency of road maintenance.

However, governments realise that good road networks promote economic growth, particularly when they connect their country to the rest of the region. In addition, they

⁶⁸ Part of the success of the creation of the Road Fund lies in the insistence of those who have championed it that the fuel levy – which contributes a significant portion of the funds – is not a tax. If, as a tax, the fuel levy were to enter the general coffers, those who are exempt from duties do not pay it. However, such categories of fuel users must pay levies.

⁶⁹ This should rise to 8,000 million CFA francs for 12,000 kilometres by 2004.

recognise that road users will pay higher taxes if they see a direct link between taxes and road maintenance that ultimately provides them with higher business profits. This leaves government open to allowing the road-transport sector to retain more of the revenue raised from taxes on its activities and to leave the allocation of this revenue to autonomous road funds, on the principle that management of the funds will be more efficient when it incorporates feedback from the users. At the same time, government retains the obligation to fund new road-building from its own funds and through the mobilisation of donor funding.

6.2 Linking tolls to axleweights

Regional regulations exist for maximum axleweights. However, they are rarely applied. Adolehoume (1992: 76) notes that in Togo *cartes grises* rarely cite cargo-carrying capacities of less than 30 tonnes, despite legislation there that limits loads for articulated lorries to 25 tonnes (four axles) or 27 tonnes (five axles). "This is why one may indeed question the practicality of regulations that have just lowered maximum loads from 13.0 to 11.5 tonnes." Such contradictions undoubtedly exist in other central-corridor countries.

However, not only do the *carte-grise* limits generally exceed the regulated axle weights in the country of issue (as well as the manufacturers' recommendations) but the maximum axle weights vary from between countries. This results in lorries that are technically overladen relative to the manufacturers' recommendations, legally within the *carte-grise* limitations and the national regulations in one country, but over the limit when the lorry crosses the border into a neighbouring country. However, until recently, there has been no widespread way of verifying axleweights in any central-corridor country.

As early as 1996, the Ghana Highway Authority began clamping down on excessively heavy loads because of the accidents caused and because of the extra road degradation they caused. Until then, truckers accepted loads of 700 bags of cocoa (44 tonnes, for a single-axle articulated lorry) or 800 bags (50 tonnes for a double-axle lorry). Since then, these figures have been reduced to 600 bags (38 tonnes) and 510 bags (32 tonnes) respectively. However, without scales monitoring whether – or to what degree – the lorries were overweight was difficult.

By January 1999, on some routes, policemen and GHA agents will systematically collect surcharges for overloading.⁷⁰ This will require the installation of weighbridges to establish axle-weights. In the second half of 1998, the government was already testing the first weighbridges and planning the installation of others in the near future.⁷¹

In Mali, DNT had taken delivery of weighbridges in the second half of 1998 and was testing them. The tests had detected trucks with axleweights of 24 tonnes, which should be compared to the legal limit of 13 tonnes. DNT is drafting legislation governing road tolls, including sanctions for overweight lorries that may go beyond fines and involve removing

⁷⁰ The Benin Government is setting up road tolls on a similar basis.

⁷¹ Weighbridge tests and the publicity surrounding them have already made their mark. During an interview in October 1998, Ghanaian lorry drivers were aware that near Accra lorries were being weighed on a weighbridge and could be fined 5 000 cedis for being overweight.

permission to use the vehicle. The legislation would be unveiled with wide publicity about the introduction of road tolls based on weight with fines for overloading,

Burkina Faso has road tolls for stages that crudely link payment levels to weight. An empty lorry pays 3,000 CFA francs against a receipt that allows it to cover a stage of about 220 kilometres, while a laden lorry pays 4,000 CFA francs for the same stage. In addition, regulations stipulate surcharges for overweight vehicles. However there is currently no plan to introduce weighbridges for a more precise linkage. Currently, the only Burkinabe weighbridge belongs to the Customs Service, so policemen collecting tolls have no way of assessing excess axleweights and cannot enforce these regulations.

Once they set up a system of weighbridges to control axleweights, governments should allocate to private companies the job of controlling axle-weights and levying tolls on roads to finance their road fund. Contracts for this work should be allocated on the basis of competitive tenders. The government's role then becomes one of overseeing the work of the companies.

Where truckers have no choice in the route they take, authorities can impose strict controls on overloading without worrying that these will incite lorries to take other routes. As competition between corridors from the coast to the Sahelian countries intensifies, it will become more important to ensure that countries do not compete to attract commerce by relaxing the strictness of their controls. Regional road-transport *observatoires* will want to include as a standard part of their work surveillance of the operation of weighbridges in different countries, using ECOWAS norms as their yardstick.

6.3 Privatisation of road maintenance and repairs

Public Works Departments now allocate most of the work they would previously have done themselves to private companies. This has caused some problems as the private sector in the different countries was not prepared, technically or financially, to assume this responsibility. However, as they have gained experience, they have begun to overcome these difficulties. They continue to face difficulties with heavy bureaucratic procedures and long waits for payment.

Private contractors undertake 90 percent of the work for which the Ghanaian Road Fund is responsible.⁷² Burkina Faso gives most of this work to the private sector. Initially, contractors who were unused to road-building produced some shoddy work but the standard has improved greatly since then. The Treasury funds most of this maintenance work whereas donors provide most of the funds for rehabilitation and new construction.

⁷² Contractors submit monthly bills for payment by the fund through the appropriate government agency, depending on the type of road on which they are working: the Ghana Highway Authority (trunk roads), the Department of Feeder Roads (minor rural roads and tracks), or the Department of Urban Roads (roads in cities and towns). The public sector does the other 10 percent, partly to make use of the public-sector equipment that it keeps for emergency work and partly so that it can carry out studies.

7 Conclusions

The model laid out in the introduction to this study indicated four exogenous factors that promote high cost and low efficiency in the West African trucking sector: delays and bribery, a limited number of backhaul loads, high prices of imported lorries, spare parts, tyres and fuel, and high taxation. It also showed endogenous factors that reinforce these negative effects through vicious circles of degradation of vehicles and roads. In subsequent chapters, the study has provided more detail about the mechanisms that limit trucking efficiency, noted successes already achieved in combating them, and suggested additional ways to do so.

7.1 **Delays and bribery**

In the area of delays and bribery, the most serious and most often discussed constraints are the roadblocks, particularly at border posts, at which PDG agents delay lorries and extort illicit payments from lorry drivers and shippers. The number of checkpoints periodically falls but (a) it tends to grow again shortly after the reduction and (b) the total revenue extorted by PDG agents does not fall over the long run. The existence of *sociétés de convoyage* that provide a government-regulated commercial service of minimising bribes in Burkina Faso and Côte d'Ivoire shows how entrenched this sort of corruption has become.

The *sociétés de convoyage* are not themselves a problem but the symptom of a deeper malaise. If the majority of these policy steps are taken successfully they will disappear. Following the *observatoire* reports should show the extent to which they are able to command a premium for their services and the moment at which they cease to exist.

Corruption also occurs at ports where truckers compete for northbound freight. Much of this takes the form of bribery and delays for the shipper rather than the trucker, because it takes place before the transshipment to the lorry takes place, but excessive customs inspections and shake-downs by port security services do slow down the lorry's departure from the port. (In addition, discrimination by the nationality of the vehicle and/or lorry crew in the level of extortion leads to regionally-divisive recriminations that do not promote regional trade.)

PDG services may extort under any pretext but the current regional trucking legislation, which does not correspond to central-corridor trucking reality, provides them with many unreasonable excuses to delay or render more complex a trucker's journey, in particular customs escorts to and from border posts and paperwork for guarantee funds that must be redone at the border.

National shipping organisations and truckers' unions use monopoly power to demand payments for services they may not render. These are not bribes in the legal sense but their economic effect is similar to that of bribes in that they raise the cost of road transport without any corresponding benefit.

There are, however, four causes for some hope in this area. Firstly, from January 1999, the West African Enterprise Network will be starting an *observatoire* that will track costs and

times of journeys on major trucking routes within West Africa, including the most important ones in the central corridor. Weekly data will be analysed and presented on a quarterly basis to the heads of the PDG services and to other senior government figures in each country, as well as to representatives of bilateral and multilateral donors. The reports should allow all concerned to follow in some detail the evolution over time of obstruction and extortion along each route, and should allow individual PDG services to evaluate the behaviour of their own agents in a way that has not hitherto been possible. The knowledge that others are also receiving such regular confidential details of their agents' behaviour may provoke the heads of PDG services to try to curb corruption.

Secondly, countries of the central corridor have adopted common freight documentation for cargo trucked out of central-corridor ports. This concerns not only the UEMOA countries but also Ghana. This is a step towards harmonising all paperwork and procedures in regional trade. In the meantime, UEMOA is preparing a major policy document on regional transport and transit legislation, which needs to be severely simplified to form a workable basis for economic integration.

Thirdly, UEMOA member states' intent to participate in bilateral border PDG posts. In principle, these joint border posts should group together the PDG agents from both sides of a given border so that together they review the paperwork for a lorry and its load. If this works as planned, they will automatically control each other. Reinforced by the agents' awareness of the *observatoire* data being collected, this system may usher in a faster, less abusive border crossing.

Several new roads to be built in the next five years, in particular those linking Mali to Dakar and Conakry, promise to provide more competition between ports and thus lead to lower transport costs. In addition, Ghana is making Tema a more attractive port for Burkinabe shippers. These effects should provide competition that will put downward pressure on bribes sought in coastal markets. Otherwise governments will lose trade through their ports.

7.2 Empty backhaul journeys

Empty backhaul journeys can never be eliminated. A sizeable proportion is structural in the very basic senses that more freight travels from the coast to the Sahel than vice versa and that seasonality of harvests will always provide a cyclical variation to the supply of lorries for non-harvest goods and commodities on north-south routes. In addition, some more modern-sector truckers have evolved good connections in coastal cities to enable them to find freight there quickly. For them, trying to find southbound freight in the Sahel may be more trouble than it is worth, particularly given the extra hassle that PDG agents exert on laden lorries, compared to empty ones. These truckers have little incentive to spend time looking for backhaul freight.

Nonetheless, there are many informal-sector truckers without any particular advantage in finding northbound freight in coastal countries. They have an incentive to find backhaul freight. However, Sahelian loads – almost always of agro-pastoral commodities – are widely dispersed. In towns and at major markets there exist transport brokers that make a living of

finding freight for southbound lorries In Burkina Faso, OTRAF also plays this role to some extent but not particularly efficiently

There is some more efficiency to be squeezed out of the backhaul freight market CILSS has begun to set up a pilot system to find backhaul freight for road hauliers in Burkina Faso, but it will have only a national focus and will work through OTRAF, rather than the more efficient private-sector freight brokers The pilot scheme will undoubtedly provide lessons for setting up such a system regionally, but its national focus will limit its applicability to regional problems

7.3 High CIF prices

West Africa has no manufacturers of lorries and the central-corridor countries import all the inputs to trucking, which makes them expensive In some cases they do so through agents who take high commissions The devaluation of the CFA in 1994 made imports even more expensive The reaction of truckers has been to buy almost exclusively second-hand lorries and spare parts The national fleet is therefore very old

Suggestions that truckers might enjoy economies of scale through bulk buying of any or all of these inputs seem not to hold much promise In Côte d'Ivoire, very limited bulk purchases of lorries seem to have been successful as long as formal-sector credit has been available In Ghana, bulk buys led to diseconomies of scale due to the extra costs of credit and warehousing In practice, in the informal sector where most central-corridor truckers operate, effective collaboration is difficult between individuals who have little experience of, or faith in, cooperation outside their close family networks

A dynamic market in second-hand spare parts operates throughout the region Still, trucks may be out of action for weeks when a particular part is not available The absence of spare parts creates disproportionately high costs in the form of idle trucking capacity and journeys, sometimes to neighbouring countries, to find the right part Parts themselves are relatively cheap because they are used and traded on a competitive market Finding the right part, or having it flown in from Europe, can cost much more than the part itself

7.4 Taxation of inputs to trucking

Central-corridor governments have historically taxed trucking heavily, thus penalising trade in general and, in particular, long-distance regional trade, which consumes proportionally more inputs To a large extent this remains the case However, two changes in tax policy represent significant steps forward Firstly, Ghana has completely abolished import taxes on vehicles This single step makes its overall taxation of trucking significantly lower than in other central-corridor countries Secondly, the UEMOA countries – including Burkina Faso, Côte d'Ivoire and Mali – have committed themselves to reducing their customs duties to no more than 20 percent by 2000 As various inputs to trucking currently attract customs duty at rates higher than this rate, in the near future trucking in central-corridor countries other than Ghana should also become cheaper

7.5 Overloading

Informal-sector truckers overload their trucks because a competitive market for road haulage forces down prices. Overloading allows them to win some short-term profit at the private cost of accelerated degradation of their productive capital and the social cost of accelerated degradation of the roads on which they travel.

Many of them possess trucks that they run into the ground as they reduce their prices in this market. They haul at rates that do not allow them to make provision for replacing the lorry in the future. In this sense they are running at a loss and should leave the trucking sector and undertake some other economic activity. However, the prestige associated with owning productive capital such as a lorry keeps them in the business, despite the losses. And more old trucks arrive every day.

In one sense this is good for the regional economy. A very competitive market means that shippers get low prices. The Burkinabe government parastatal, CGP, takes full advantage of this by setting prices that, observers calculate, do not allow truckers to cover their costs. Truckers accept these low rates in order to generate working capital at the expense of their productive capital: they disinvest. In so doing, they subsidise the state, in this particular case, and shippers in general.

However, these rates are low only relative to the productive capital that is competing in the central-corridor road-haulage market. The maximum efficiency of these old vehicles is, on average, very low. They break down often, are unsafe and have many accidents, burn fuel inefficiently, and cover only a modest distance each year over which to spread their fixed costs. The net effect is that the overall cost of the services they provide is, paradoxically, very high relative to the cost in other parts of the world.

Despite the "extreme free market" model that applies in some cases, some of these vehicles stay in business thanks to the "order of arrival" method used by shippers' organisations for allocating lorries to freight at ports. Under this system, the shipper has limited choice in which lorry will carry his goods. Rather than pick one that looks as if it will arrive at the destination without breaking down, he must take the one at the top of the queue. This guarantees a minimum of freight to older vehicles, allowing their owners to keep them running when they should be scrapped.

Informal-sector truckers have few formal business skills that would allow them to calculate the cost of running their vehicle and thus make clear what prices they should charge in order to at least break even. They perceive no great benefits from preventive maintenance, preferring to repair as and when necessary. They keep low inventories of spare parts and use mechanics with little or no formal training. Repairs may therefore take a long time and be makeshift. This cost-minimisation mentality means that they offer a service to shippers that is not only expensive by world standards but also very uncertain.

The accumulated mass of old, poorly-maintained, unsafe lorries in the central corridor creates a huge inertia that will take a long time to change significantly. However, recently

Ghana and Mali have put limits on the age of imported lorries. This measure should gradually allow the average age of these countries' fleets to drop.

7.6 Road quality

Road quality suffers due to overloaded lorries and insufficient maintenance. In this area, recent developments have been most encouraging. Structural adjustment programmes in the road-transport sector during the 1990s have led Ministries of Transport to emphasise maintenance, rather than new construction, and to set up autonomous "road funds" to fund maintenance work, financed directly from a variety of sources (including fuel levies) and overseen partially by road users, including truckers' organisations. Private companies have taken over most of the maintenance work. The road funds oversee their work and ensure that they are paid. Budget allocations to roadworks have risen.

Tolls on stages along main roads constitute part of the financing for the road funds. Agents levy tolls as a function not only of vehicle size and specification, but also as a function of overloading, which is penalised heavily. To do this, Ghana and Mali are introducing weighbridges on main roads. Particularly when they participate in road-fund decision-making, truckers are content to pay tolls if they lead to well-maintained roads.

7.7 Process

If the other constraints are lifted, truckers may not be sufficiently organised to play their part in increasing their flow, and there will still be too many of lorries.

As mentioned above, informal-sector truckers – who dominate the sector in the central corridor – are an independent group who resist strong grassroots organising. In Burkina Faso, they all belong to OTRAF, their union, because they have no choice: all Burkinabe holders of *cartes grises* for lorries are automatically members. In Côte d'Ivoire and Mali, they may be one of a multitude of small unions that individually have little power and cooperate in order to receive the largesse that the government shares between them. In none of these three cases does the union operate forcefully and independently of government.

In Burkina Faso, the government plays an important part in setting trucking rates through GCP, its parastatal. GCP sets low rates for the large share of the market in importing basic foodstuffs. In both Burkina Faso and Mali, the cotton companies – which have significant government ownership – play an important role in determining trucking rates for this commodity which is by far the most important export by weight from both countries.

In Ghana, in contrast, GPRTU and the Road Hauliers' Association both have truckers as members and appear to lobby government seriously on their members' behalf. Moreover, the government plays a smaller role in the market in Ghana and so has less opportunity to influence trucking rates as a shipper.

The unions should be working aggressively to restructure the institutions that perpetuate trucking inefficiencies. However, except in Ghana, government tends to co-opt truckers'

unions and form corporatist alliances with them. This does not prevent unions striking against PDG abuses in these Francophone countries. Governments may be content to allow this activity focussed against one of its arms which is misbehaving, but not against the focus of power.

However, uneducated union members are less likely to attain their goals. It is important to train truckers to do basic accounting (in order to determine when they're operating at a loss) and to provide them with information about current market conditions and regulations in different countries. In addition, their representatives should be able to provide them with advice and help when they want to adopt a modern-sector approach to problems.

8 Recommendations

Several rays of hope emerge from the conclusions. In particular, if the WAEN *observatoire* feeds continual and credible evidence of irregularities to a wide audience, government leaders may be obliged to stamp out at least the worst of the roadside corruption. They may also do so because they feel competing combinations of ports and routes are depriving their major port of business. Therefore, ECOWAS, UEMOA, CILSS and donors should support the *observatoire* and give its results full consideration.

To reduce PDG corruption will require not only a restructuring of incentives and penalties within each but also a change of leadership at the top of each service and continuing oversight at the ministerial level or higher within governments. Central-corridor countries would, in general, be better served by fewer, better paid PDG agents with better training and technology, e.g. customs agents using laser-operated scanning material.

In the context of the creation of the UEMOA common market, its expected review of the rules underpinning regional trade and transit should provide suggestions for a free market for trucking as part of the common market being created in the region. UEMOA's steps towards the free market regulations should be encouraged. New workable rules on transport and transit within UEMOA and joint border posts on common borders between member states would provide fewer opportunities for PDG agents to demand bribes and delay lorries. Linkages between this market and the non-UEMOA ECOWAS members, e.g. Ghana, should be fostered.

ECOWAS and UEMOA should continue liaising over TRIE and TIE (which are ECOWAS treaties), particularly the issue of eliminating customs escorts (including the adaption and adoption of the *grille plombée* for regional trade and the introduction of a regionally-managed guarantee fund), equal access to freight regardless of country of vehicle immatriculation for truckers within the region, free access to use all roads, and uniform documentation for international shipments.

Direct bilateral agreements to promote easier trade should be pursued to allow individual pairs of countries to go further still towards complete free trade. These may later be converted/incorporated into regional treaties that cover more countries, in a progression towards regional integration. Sahelian states and Côte d'Ivoire need to deal openly and

transparently with the issues of the *vignette touristique* and of the *carte de sejour* and the *carte professionnelle*. Once an agreement on issues of this type have been made, there should be a standard monitoring and evaluation process the results of which should be discussed at meetings which representatives of DNT from each country attend.

The Burkinabe and Malian governments need to require/encourage CMDT (Mali), SOFITEX (Burkina Faso) and the Caisse de Perequation (Burkina Faso) to auction off parcels of freight rights to truckers from throughout the region, rather than fix prices at levels that do not allow cover their costs. This would allow the market to determine appropriate trucking tariff and would not risk these monopolies exploiting individual truckers.

Governments still need to address the issue of eliminating delays and corruption at the ports. The need for reforms seems to be most urgent at Abidjan. Port authorities should streamline port procedures, including focussing customs activity on the minority cargoes statistically likely to contain contraband. Systematic scanning of all cargoes with lasers or other electronic technology can speed up the selection of the sample to be unpacked and inspected in detail.⁷³

Abidjan port authorities should consider enlarging the warehousing for cotton at the Abidjan docks – or at least the space made available for unloading it – to avoid seasonal unloading delays for lorries arriving with loads of this commodity. Other ports may find it in their best interest to create competing facilities for cotton exports.

Instead of the “order of arrival” method for allocating lorries to freight at ports, shippers’ organisations should instigate a transparent market whereby brokers (or the truckers themselves) bid for lorries (that are available for inspection if required) and shippers (or their brokers) bid for haulage capacity.

Truckers and shippers must have legal equality in other states in which they have registered and paid dues to do business. Even if they do not enjoy full legal equality because of certain legal preferences reserved for nationals, they should at least be able to have a court resolve a dispute without feeling that the court has a bias against non-nationals.

A noticeable reduction in overloading and an improvement in road quality should occur in the next few years, at the same time as new road connections will provide greater competition between ports to supply Sahelian markets. Lower taxation on vehicles in Ghana (already in place) and lower taxation to which the UEMOA countries have committed themselves (due in place in January 2000) will reduce the cost of trucking. Governments other than Ghana may not want to completely reduce the tax on imported vehicles but they should reduce import taxation on newer vehicles and tax more severely, or ban, older vehicles. If delays and corruption can be held in check, and shippers have a choice of ports, overall trucking costs should drop considerably and truckers will be able to afford newer

⁷³ This technology should also be considered in other, non-port circumstances to speed up customs inspections.

vehicles in better condition. Requirements that vehicles not exceed a certain age will, of course, greatly help.

Therefore, regional organisations and donors should support moves towards autonomous road funds, financed at least partially by road tolls that strongly discourage overloading. In addition, Burkina Faso and Côte d'Ivoire should, the two countries that have not put limits on the age of imported lorries, should do so.

Road funds should auction the right to run weighbridges on major roads to the private sector. The private operators should charge lorries for road use on a basis of fees that increase with the damage they inflict, with burdensome monetary penalties for overweight lorries.

Agencies responsible for road safety in each country should revise their rules on vehicle safety, publicise and promote them, and more vigorously enforce them.⁷⁴ These rights should not be auctioned off but retained as a government obligation. Truckers' unions should be represented on advisory committees to these agencies. Donor aid should be made available to support this development.

Donors should work with truckers' unions to provide two types of information system. Firstly, information on backhaul freight would be profitable for some truckers and shippers. It would reduce time waiting and the costs of looking for freight (for the trucker) and of looking for transport (for the shipper). Secondly, information on the regional availability of spare parts would reduce costs and time spent looking for them. Compiling and distribution of a listing of spare-part stockists in central-corridor countries, with information on specialisation by make of vehicle or types of spare parts, contact information and languages spoken, would save a lot of resources and keep lorries on the road for a higher proportion of the time.⁷⁵

A backhaul freight information system and a listing of spare parts dealers could usefully reduce inefficiencies in the regional trucking system. However, these should not necessarily be construed separately. Both could form part of a wider internet-based regional trade information system that would cover current freight rates for standard routes, listings of available freight, prices offered for tyres and spare parts, market prices for commonly transported commodities, arrivals of ships at ports, etc. Such a system would provide real-time information. Individual truckers or traders would have free access to it in towns and major markets, and their unions or associations would have the responsibility of making it available to all members in other formats, e.g. newsheets. Those who wanted custom-formatted data or particular analyses would pay for these. The system would also serve as a window on the world market and would promote West African exports. In Zimbabwe,

⁷⁴ Governments do not need to discriminate against old vehicles already in the country, many of which may be well maintained, they should allow the market to do that. However, they should discriminate heavily against poorly-maintained, unsafe lorries.

⁷⁵ Compiling listings of stock held by each stockist would clearly consume excessive resources.

ZIMTRADE acts as a successful comprehensive trade information system, financed by a very small tax on trade. However, such a system could be made to largely pay for itself.

A weak link in the developments described above is the cohesion and dynamism of the truckers themselves. This is not true in Ghana where truckers unions lobby in their members' self interest and have seats on the road fund on which to do so. However, in the UEMOA countries the unions have been simultaneously given a monopoly of national membership and co-opted by government. This devalues them and renders them ineffective. Governments should remove unions' automatic rights to monopolies of membership and the right to collect money from lorries leaving ports or loading backhaul cargoes. Truckers should have the freedom to decide to which unions, if any, they wish to belong.⁷⁶ At the same time, donors should provide aid in policy analysis and business management to unions, promote formal short courses for mechanics at local technical colleges, and help unions set up courses for their members in literacy and book-keeping. Unions should also build relations with each other in order to find a single voice with which to address UEMOA and ECOWAS.

Truckers should receive training to enable them to benefit from any policy changes brought about to liberalise the sector. The unions should organise to provide them with

- adult literacy training
- basic accounting so that each trucker knows the minimum distance he must cover annually to cover costs

In addition, union officials should receive business management, policy analysis and advocacy skills. On the other hand, Francophone-country governments may want to push informal-sector truckers towards the formal sector through restructuring their taxation of the sector, perhaps following the Ghanaian model. To modernise their fleets they may want to consider differentially taxing imported inputs to trucking. If they follow Ghana's lead in combining this with limiting the age of imported lorries, this will reduce the average age of their fleets, complementing the movement of informal-sector truckers to the formal sector.

As changes take place in the policy and institutional environments of central-corridor trucking, *observatoire* reports should show considerably faster journey times between coast and Sahel. It should be possible to double the average number of round-trips from 1.5 to three per month, at least for those with reliable enough lorries to do this. The *observatoire* should be retained to measure elements like average journey speed, as a measure of improvements attained. As it matures, it may be merged into the regional internet-based trade information system that would also show changes in the average age of lorries travelling certain routes, the number of PDG checkpoints along these routes.

⁷⁶ Similarly, shippers should be free to decide to which shippers' associations, if any, to which they wish to belong.

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Annexe 1 Insurance

Annexe 2 The *droit de traversee* and variants

Annexe 1

Insurance

We should distinguish between insurance for vehicles, their loads, and the possibility that their loads may disappear before the importer pays import duties. ECOWAS legislation requires vehicle insurance in the form of the Brown Card/*Carte Brune*, which provides up to 90-days of cover outside a vehicle's country of registration. In 1998, 90-day cover cost 750,000 cedis (about US\$ 375) for a 30-tonne Ghanaian lorry. However, an accident involving a Ghanaian lorry in a Francophone country can result in the vehicle being impounded until the insurance claim is settled. Delays result from different formats and rules between the Anglophone and Francophone interpretations of the *Carte Brune*. Delays also result from the slow performance of the West African banking and clearinghouse system for foreign exchange. It can take over a year for reimbursement to reach the party to be compensated. This issue could be resolved on a bilateral basis while ECOWAS works to provide a general solution.

Insurance of the load is the business of the shipper. Generally, extra-African imports have insurance, as do shipments by formal-sector African companies. Informal-sector businessmen tend not to insure their shipments. For example, shipments of livestock are rarely insured. As West African shippers become more formal in their business habits they will increasingly insure their cargoes. If they want bank credit to boost their trade they will be required to insure any cargoes thus financed.

The TRIE convention dictates a single bond or guarantee against the disappearance of shipments on which import duties remain outstanding. Such a bond should provide a bond against unpaid duties on a shipment. The inability of ECOWAS members to devise a means of dividing up the bonds thus paid means that this system does not work and that individual countries impose their own disparate guarantee requirements.

Annexe 2

The *droit de traversée* and variants

In Mali, truckers pay a *droit de traversee* for the right to cross the country. In return for this payment and an initial inspection, the government limits the number of checks on the lorry as it meets road barriers within the country. The revenue goes to three destinations: the Treasury, a fund to finance purchases of new lorries⁷⁷, and PDG services (as a top-up to their salaries). Within the central corridor, only Togo has such a tax⁷⁸.

Côte d'Ivoire has recently introduced "free-passage" windscreen stickers printed by the government and sold to truckers by the unions which, apparently, pay the revenue to the Treasury. In principle, drivers of lorries displaying them can travel through the country without hassles at checkpoints, much as those who have paid the *droit de traversee* do in Mali. It remains to be seen if they will do so. A 1998 scheme by the Ivorien CNC (a public-private partnership to promote trade in livestock and agricultural products) to charge truckers for the privilege of avoiding extortion equated to the the creation of a para-public *societe de convoyage*.

A Burkinabe trucker has proposed that, in return for a payment, lorries carrying perishable commodities should be allowed to display a "Perishable" sign that would allow them accelerated treatment at control posts. This too might reap benefits, but these schemes are second-best strategies creating *ad hoc* taxes or special cases without setting up a basic taxation system for road use and eliminating extortion.

⁷⁷ This fund has never been used because the different truckers' unions cannot agree on how to use it.

⁷⁸ In Togo, the *droit de traversee* is known as the *taxe de solidarite sur la mer*.