Competition Assessment in Malawi Transport Sector

(A paper prepared for ACER 2016 Conference, Livingstone, Zambia)

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Abstract

Transport sector plays a crucial role in Malawi's economic development. The sector has been identified among key factors that are crucial to trade. Malawi, being land-locked and importer of fuel, registers relatively high transport costs. However, past studies observed that the transport costs in Malawi do not compare favourably with other land-locked countries in the region. It was against this background that CFTC conducted a study into the transport sector to establish the level of competition and its effect on the market. The study reviewed the structure, existing regulation, conduct of market players and how they influence market outcomes.

The study found that performance of transport sector is affected by a number of factors some of which are competition related. The study found substantial evidence that suggest price-fixing cartels and other unilateral conducts. These were found to contribute to poor performance.

Furthermore, the study found that competition in the transport sector is impeded due to existing regulations which create barriers to entry and do not incentivize market players to behave in a competitive manner. For example in air transport, the study found that reforms in licensing of airlines would improve competition in airline industry and result in reduction in fares which are currently among the highest in the region.

The findings of this study call for the Commission to institute enforcement and advocacy activities.

Introduction

Transport sector plays a crucial role in Malawi's economic development. The sector is identified among key factors that are crucial to trade. Malawi, being land-locked and importer of fuel, registers relatively high transport costs. However, past studies observed that transport costs in Malawi do not compare favourably with other land-locked countries in the region. It was against this background that CFTC conducted a study into the transport sector to establish the level of competition and its effect on the market.

The study was conducted in the cities of Lilongwe and Blantyre through interviews with regulators, operators and consumers in the transport sector. Relevant literature was also reviewed as part of desk research. The study focused on structure, conduct and performance of the sector to understand the competition aspects therein.

Problem Statement

Previous research on the transport sector in Malawi and its neighbours in Southern Africa has recognised that both regulatory and infrastructure developments, as well as competition between transport service providers are important in reducing transport costs (See Ncube *etal.*, 2015; and Teravaninthorn and Raballand, 2009). This is recognised as being particularly important in the case of road transportation of goods and passengers in Malawi whereby road routes accounts for approximately 70% of internal freight traffic, more than 90% of the country's international freight traffic, and 99% of passenger traffic (Lall et al, 2009; Republic of Malawi, 2015a).

High transport costs, particularly for road transportation of passengers and goods, have been linked with high fuel prices in recent years in Malawi. Ministry of Transport estimate that transport costs account for about 56% of the costs of imports and exports in Malawi. Rising fuel costs are related also to the significant depreciation of the Kwacha in recent periods. Information available in the public domain suggests that fuel costs in Malawi are amongst the very highest in the Southern African region (Helema, 2015).

Interestingly, World Bank (2014) indicates that Malawi ranks second behind South Africa in terms of the overall Logistics Performance Index (LPI) scores relative to

neighbouring countries Mozambique, Tanzania, and Zambia, as well as South Africa which is added as a further comparator (Table 1). Malawi seems to perform well in terms of customs procedures and road infrastructure measures, as well as logistics quality. However, Malawi ranks relatively poorly on international shipments which partly may be a consequence of the fact that the country is landlocked and as such may rely on the logistics systems in other countries including efficiencies at ports to facilitate shipments. It is worth noting that Malawi has a strong presence of sophisticated global players in forwarding and logistics operations which may explain the relatively strong scores in terms of the performance of its logistics systems overall.

Table 1: Logistics Performance Index scores and rankings, 2014

	Malawi		Mozambique		South Africa		Tanzania		Zambia	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Overall LPI	2.81	73	2.23	147	3.43	34	2.33	138	2.46	123
Customs	2.79	62	2.26	126	3.11	42	2.19	135	2.54	86
Infrastructur	3.04	48	2.15	135	3.20	38	2.32	114	2.31	115
International shipments	2.63	108	2.08	154	3.45	25	2.32	137	2.13	152
Logistics quality and competence	2.86	70	2.10	153	3.62	24	2.18	145	2.47	114
Tracking and tracing	2.63	100	2.08	152	3.30	41	2.11	150	2.47	120
Timeliness	2.99	100	2.74	134	3.88	33	2.89	107	2.91	105

Source: World Bank (2014)

More recent studies in the region have identified competition and regulatory issues as concerns in the SADC road freight sector, including the Malawian market, and focused less on infrastructural constraints. Ncube et al (2015) considered competitive dynamics in road freight transportation in Malawi, Tanzania and Zambia, through evaluating the transportation of fertilizer in each country as a case study. Their findings were that outcomes in the transport sector were driven by a range of

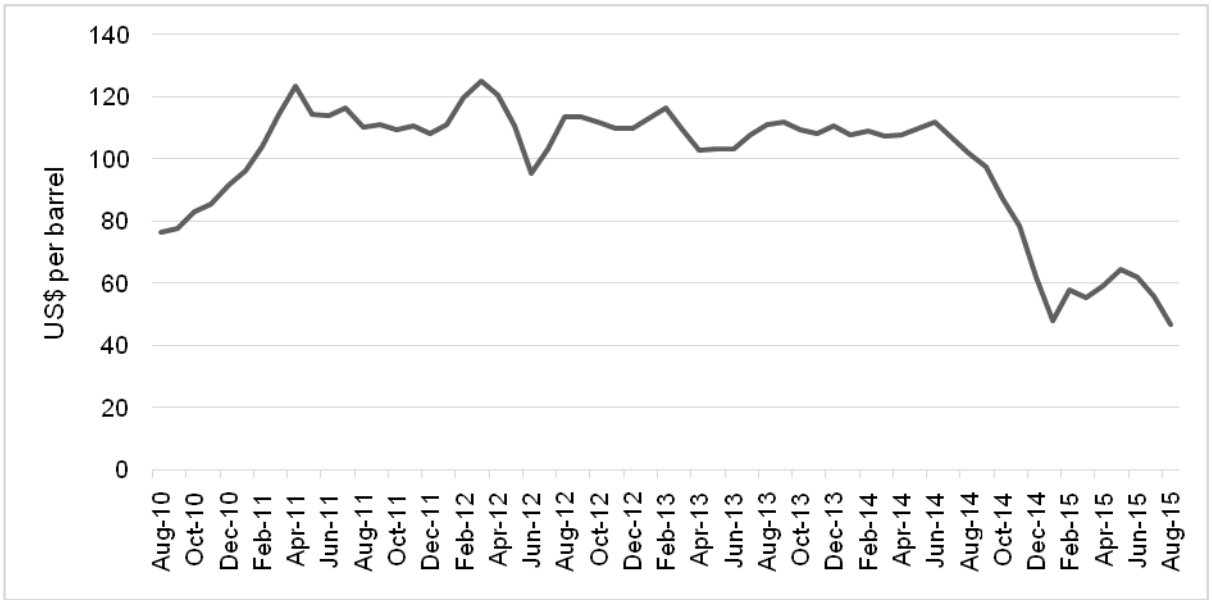
factors including the availability of return loads for transporters linked to increased economic growth and trade, price regulations for transport through the state such as in the transportation of subsidized fertilizer, and the bargaining power of user groups relative to one another. For Malawi, it was further found that the transport sector is concentrated in terms of a few large transporters, although there are many owner-operators as well. Outcomes are also significantly affected by the fact that there are few opportunities for return loads within Malawi, which contributes to very high domestic transport prices (Ncube et al, 2015).

A primary driver of transport sector outcomes in Malawi is the fuel price. From various interviews conducted, including with transporters of goods and passengers, operators cited high and rising fuel prices as a primary influence on transport prices and thus the cost of goods and services.

Malawi imports fuel from international markets and is thus directly affected by global prices for oil which have declined significantly (by around 50%) since mid-2014 (

Figure ***1***). Interestingly, although the global prices for oil have declined in this period, Malawi fuel price has not significantly reduced when compared to neighbouring countries. This is likely to reflect a low transmission of global prices to the domestic environment, which may be caused by apparently high domestic taxes on fuel relative to other countries and high costs of transporting fuel by road.

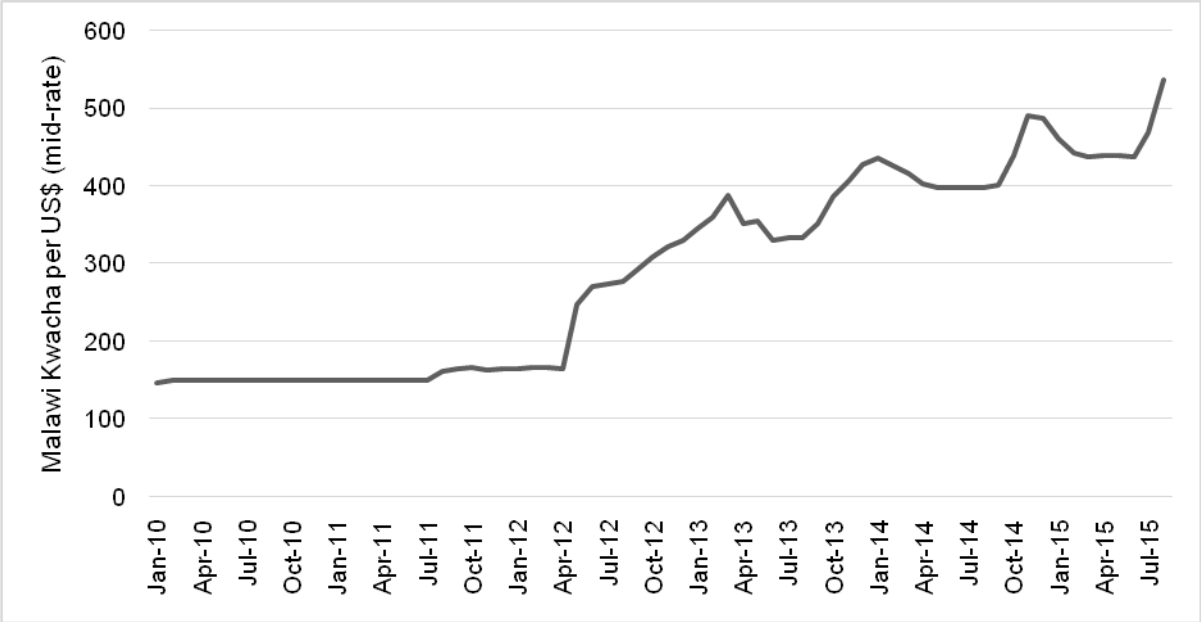
Figure 1: Brent crude oil monthly price, 2010-2015



Source: www.indexmundi.com

The impact of global oil prices on domestic prices is linked also to the prevailing exchange rate conditions. The Malawian Kwacha (MK) has on average depreciated relative to the US$ in recent years, which has the effect of increasing the costs of purchasing and importing fuel Refer to Figure 2 for details.

Figure 2: Malawi Kwacha per US$, 2010-2015



Source: Reserve Bank of Malawi

The Kwacha was officially devalued in May 2012, however the most significant increase in the fuel prices was observed from as early as November 2011, prior to the devaluation. This change is linked to a change in the pricing formula applied in November 2011 following fuel shortages in 2011. Currently, Malawi employs Automatic Pricing System in which the price of petroleum products is determined using the values of three components, namely: the In Bond Landed Cost (IBLC), taxes and levies, and industry margins (World Bank, 2015).

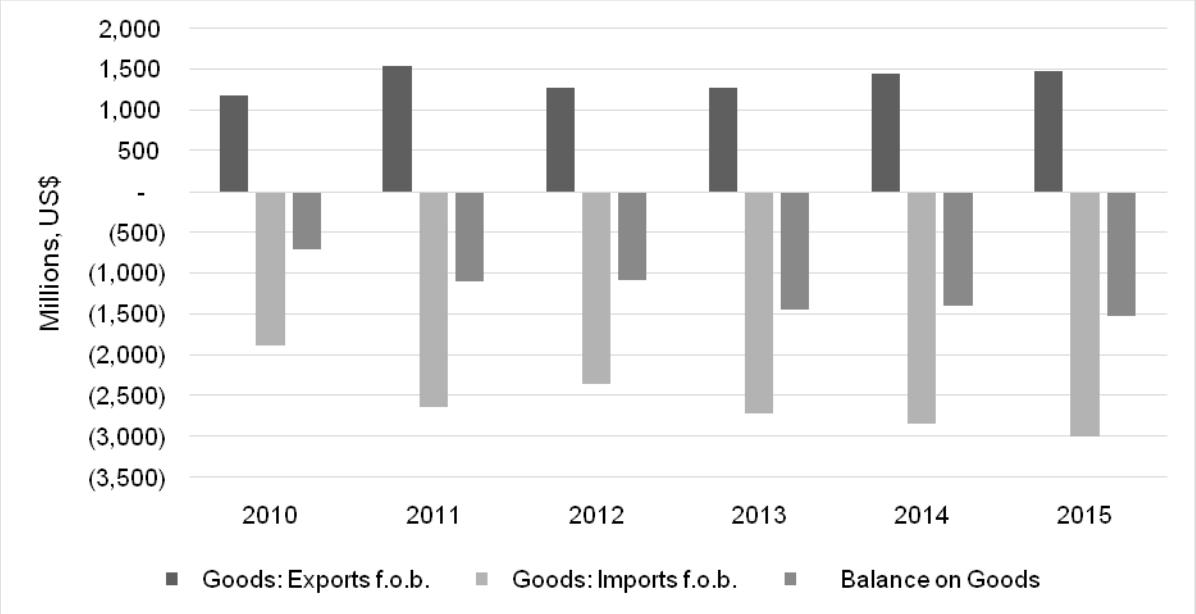
It was only in May 2012 that fuel prices declined significantly for a brief period, before increasing gradually from mid-2012 following the currency devaluation (which would affect the import price of fuel). The country registered other fuel price decreases mid-2014, December 2014 and January 2015. Another fuel price increase happened in May 2014.

In a recent market inquiry, the CFTC assessed the responsiveness of passenger minibus and bus fares to reductions in the fuel price. The assessment found, amongst other factors, that fares for passenger transportation by bus and minibus

did not respond positively to fuel price reductions. The operators were reluctant to reduce fares as they were uncertain of what would happen to the fuel price in the next period.The operators opined that it would not make a business sense to adjust bus fares downwards every time the fuel price fell since other cost parameters remained stable or adjusted upwards. This is contrary to the assertion that fuel is the main cost centre for the transporter.

The transportation of goods, are also affected by the relative trade position of Malawi. Briefly, this ties in with the availability of backhaul (or return loads) for transporters bringing products into Malawi and the fact that the imbalance in trade i.e. the net trade deficit, means that transporters are not always able to secure sufficient backhauls of export goods from within Malawi (Figure 3). In effect, the transport cost is likely to be placed largely on the import leg.

Figure 3: Malawi trade balance, 2010-2015



Source: Reserve Bank of Malawi

The macroeconomic indicators above directly impact on the outcomes in the transport sector.

Findings

Competition analysis of freight and passenger transportation by road

The National Transport Policy recognizes the centrality of road transport services as part of Malawi's intermodal transport system. However, in the various sections of the policy framework there is limited reference to principles of competitive rivalry between operators and mechanisms for encouraging both price and quality-based transport service competition. Encouraging greater rivalry between operators, and removing regulatory and market conduct constraints to this, is consistent with a renewed emphasis in SADC and other regional bodies on regulating for quality-based competition through harmonising standards and rules such as those pertaining to overloading, transit bonds, border management and charges, and rules preventing corruption(Bingandadi, 2011).

Freight transportation by road

The transportation of goods by road both within Malawi and across national borders is critical to economic growth and trade with international partners. The main sea ports through which goods are imported or exported by road are Beira (Mozambique), Durban (South Africa), Dares Salaam (Tanzania).Nacalaport (Mozambique)is more important in terms of transportation by rail. The primary domestic route for the movement of goods is between the two main cities of Lilongwe in the central region and Blantyre in the southern region.

Road freight in Malawi is characterized by a close interaction between the roles of freight forwarding agents, and trucking companies. Forwarding agents typically act as the intermediary between the users of transport services and the truck operators, particularly for larger clients, and are involved in procuring trucking services on behalf of clients as well.

Most clearing and forwarding agents interviewed provide a range of logistics services including customs clearing, warehousing, arranging or providing transport using their own or outsourced fleets, and facilitating the shipment of goods for both domestic and international consignments. Other market participants also provide complex supply chain and project management services, as well as depot facilities with capability for specialized services such as fumigation and storage of clients' tobacco

stock given the importance of tobacco exports for Malawi's economy. A wider range of services allows the agent to offer a one-stop-shop for clients in terms of transporting goods, effectively facilitating an end-to-end service solution from the factory gate until the product is delivered to its destination.

In terms of medium to large-sized freight forwarders, there are approximately eight forwarding agents in Lilongwe and six in Blantyre. These firms service 'blue-chip' clients, and handle more than 300 loads (40-ft container equivalent) a year. It is estimated that there are around 150 registered clearing and forwarding agents in Malawi. Most market participants interviewed indicated that the major players at this level included Bridge Shipping, UTI, Combine Cargo, Transmaritime, Manica, Bollore Africa Logistics and CWT-ASI. In general, it appears that concentration in this market is greater when looking at companies with specialized capabilities, or those that focus on specific routes or types of goods. For example, some firms are able to conduct in-house warehousing and blending on behalf of tobacco company clients looking to export produce, while others specialize in the importation of goods and smaller packages, and may have smaller export divisions than others.

Forwarding agents in Malawi seem to be organized in one of two main industry associations being the Clearing and Forwarding Agents Association of Malawi (CAFAAM) and Indigenous Customs Clearing and ForwardingAssociation (ICCFA). It appears that the largest freight forwarders are mostly members of the former which assists its members in terms of aggregating and presenting complaints and concerns of the industry to government and agencies in Malawi and other countries such as Mozambique.

For typical contracts, such as for tobacco industry clients, forwarding firms submit bids to clients containing their rates, previous experience, service levels, average transit times, and various key performance indicators which are then assessed by the client. In terms of the rates charged, these are based on various factors such as port charges, and previous rates charged, although some components such as fuel and tyres which constitute the transport costs are the responsibility of the transporter.

Some of the largest trucking companies with bases in Malawi are Siku Transport, R. Gaffar Transport, and JJ Transport. According Transporters Association of Malawi, there are between 100 and 200 trucking companies in Malawi. The market players

gave an indication that there were high levels of competition at the trucking level of the supply chain. The two main sources of increased competition identified in the interviews are the influx of small Malawian operators (with between one and fifteen trucks) in the past three to four years, and the growth in the participation of Mozambican truckers in particular on Malawian cross-border routes. The small Malawian operators are said to have lower overheads and a lower cost-base and as such are able to challenge incumbent operators using lower rates.

Trucking companies from Mozambique apparently charge far lower rates than Malawian truckers also. An example given by a transporter with operations in both countries is that on the route from Blantyre to Beira, the current rate offered by Malawian transporters is approximately $75/ton compared to $65/ton offered by Mozambican truckers.

Trucking companies indicated that truckers from Mozambique and South Africa (to a lesser extent) have several key advantages over the operators in Malawi. One aspect relates to relatively higher fuel costs in Malawi, which can constitute around 50% of the transporter's costs. The fuel price in Malawi is around 30% higher than in Mozambique and other neighbouring countries.

Other related cost which increase the relative cost-base of Malawian truckers include the 25% duty which is applicable since 2012/3 in Malawi for the importation of tyres plus excise duties charged to tyre retreading companies for retreading tyres which they apparently pass on to trucking companies. In Mozambique, transporters can import parts and tyres on a duty-free basis.

Trucking companies also note high relative toll charges applicable between Mozambique and Malawi. Specifically, the distance and route between the ports in Mozambique to the main cities in Malawi is such that the transporter travels a longer proportion of the distance in Mozambique – this apparently means that a Malawian transporter travelling to or from Mozambique incurs a greater cumulative toll fee charge within Mozambique than a Mozambican transporter. Additional fees in Mozambique include the transit bond ('contramarca'[1]) which was introduced around three years ago which amounts to around $150 per truck, and takes some time to clear with the relevant authorities. The effect of the bond is that every consignment

[1]Contramarca is a unique sequential number assigned to each means of transport arriving for customs clearance in Mozambique. See Claypole (2013).

imported to Mozambique or travelling through to another country needs to be cleared and assigned a 'contramarca number' before it is dispatched, which process may also be delayed by a number of days. These fees and tolls cumulatively are said to affect outcomes for Malawian transporters – one example given by a transporter is that a Mozambican trucker will pay around$66 per trip for a journey to Malawi from Beira, whereas a Malawian transporter pays around $250 in tolls and fees, plus $30 in port fees.

Differences in prices may also reflect the limited availability of return loads in Malawi for transporters domestically and for cross-border transit. Mozambican operators also benefit from connections and access to loads at the ports.

Truckers have been able to provide average transport rates on various routes under prevailing market conditions (Table 2). Information gathered in the interviews suggests that the lower rates in the market on each route tend to be those charged by Mozambican transporters (information on prices in Table 2 is from both transporters and users).It is curious in the data provided that routes *from* Malawi cities to Johannesburg and Beira seem to carry relatively similar rates, despite an almost 1000km additional distance travelled to Johannesburg. On the other hand, high import rates compared to export rates may reflect the constraints in terms of obtaining return loads in Malawi.

Table 2: Transport rate estimates for various routes, 2015

	Rate ($)	**Distance**	**Rate ($/ton/km)**
Lilongwe to Beira	1700-2500	944	0.06-0.09
Beira to Lilongwe	3100-4000		0.12-0.15
Lilongwe to Jhb	2000-2200	1863	0.04-0.04
Jhb to Lilongwe	3700		0.07
Blantyre to Beira	1950-2250	664	0.10-0.12
Beira to Blantyre			
Lilongwe to Durban	3600	2400	0.05
Blantyre to Lilongwe	1500	360	0.15

Note: Rates for a 30t load truck. US$ per truck or trip

Source: Interview data and authors' own calculations

It is also not clear why apparently lower costs in Mozambique have not driven the prices on Beira routes to much lower levels. This outcome is not consistent with the claims of greater competition in Mozambique, and suggests possible anticompetitive conduct in trucking in Mozambique. Interestingly, the domestic rate between Blantyre and Lilongwe is significantly higher than the various cross-border rates provided, which is consistent with findings by Lall et al (2009).

Another concern in this marketis that coordination between trough the association is likely to lead to adverse outcomes for transporters where the agents act jointly as a monopsony buyer of trucking services. Where there is allocation between certain agents, individual users may face monopoly or close to monopoly prices. These practices are prohibited under the Competition and Fair Trading Act of 1998, which prohibits collusive conduct in general. Furthermore, Section 34(1)(b) prohibits an association from making any recommendations to its members in terms of "*the prices charged or to be charged by such members or any such class of members or to the margins included in the prices or to the pricing formula used or to be used in the calculation of those prices*".

Competition assessment on Freight Transportation by Road

As noted above, any competition between transporters appears to be centered on price, and to a lesser degree on quality, at least in the case of smaller transport companies. Smaller operators may be less concerned with aspects of the quality of service such as maintenance of vehicles, installation of sophisticated tracking systems, and adherence to axle load limits for instance. For larger operators servicing large clients or agents, reputation and reliability become important differentiators. The influx of foreign and new domestic trucking operators appears to have introduced some level of price competition, and the views obtained from the majority of market participants consistently confirm this. This aspect, in so far as it relates to foreign transporters, is also reflected in the views of the transporters association that the rules against cabotage should be firmly enforced to guard against unsanctioned competition between foreign operators and domestic truckers on routes within Malawi. Foreign cabotage restrictions prohibit foreign firms from transporting cargo between two points within a foreign country, a rule designed to

protect local transporters (Ward and Barreto, 2011).[2] Cabotage is still prohibited in almost all SADC countries, including Malawi.

While market participants may claim that there is some degree of price competition currently in the market from small operators and Mozambican transporters, the rates on these routes do not appear to reflect this.

A more concerning issue in the transportation of goods by road is the role of the forwarders' associations namely CAFAAM and ICCFA, which are involved in agreeing tariffs to be charged in the market as a whole to avoid destructive undercutting or overcharging by individual agents.

Passenger transportation by Road

Passenger transportation by road in Malawi comprises a combination of the services provided by minibus, bus and taxi operators. Prior to this study, CFTC intervened in the passenger transportation sector, where Minibus Owners Association of Malawi (MOAM) was involved in the setting of prices to be charged in the market. The intervention somehow increased awareness of the competition law and prohibited practices among the market participants and the general public.

Minibus operators

Minibuses operate within a set of rules administered by the Directorate of Road Traffic amongst other government departments which relate to licensing and registration as well as conduct of operators. The licensing provisions for registering a new vehicle for operation as a passenger transport vehicle do not appear to be restrictive although there are certain renewal fees and annual registrations that drivers and owners are required to comply with.

Minibuses are required to operate within a 150km radius of the major cities and are restricted from travelling long distance routes given safety concerns that have arisen in the past. This restriction which has been in place for approximately eight years was apparently lobbied for by the industry association, MOAM, and is enforced (somewhat) by the traffic and law enforcement agencies.

[2] See also the 'third country rule' (widely applied in SADC) that prohibits an operator from transporting goods from another country to a third without passing through its own country of origin.

Minibuses operate on a queuing system at the depots, on a first-come first-served basis. Passengers will board the vehicle in the front of the queue typically. In this context, it emerged from the interviews that the price paid by each passenger in this system is effectively the same although the association argued that there could be some discounting to gain passengers, and that prices were not centrally determined.

Theories of harm and competition assessment on Minibus Subsector

Minibus fares appear to be the same across different routes in Lilongwe and Blantyre. The association stated that rates were determined through competition in the market and that any alignment of prices between operators was a function of various other factors. First, new operators in the market are said to observe what other operators are charging in the market and will align their pricing accordingly. Second, some operators are apparently charging even higher rates in the market, particularly during peak hours. Furthermore, operators are free to adjust their own prices when there are fuel prices increases, although the association states that most will not adjust prices in response to minor shifts in the fuel prices, which is a key cost-driver for them.

The association also notes that 'call boys' located at depots dictate terms when it comes to prices and loading of passengers which operators have not been able to address. This practice appears to enforce a particular price in the market. Furthermore, for most commuters within cities, particularly over short distances, minibuses are one of few options for reaching different destinations. The observations made in this subsector provides scope for some monitoring on areas of 'risk' such as the conduct of marshals and the operation of queuing systems at depots.

Taxis

The report does not assess in great detail dynamics in the provision of taxi services. However, it is clear from the available information that the association of taxi operators, in cooperation with tourism and airport authorities, has agreed flat rates that are charged for major routes within cities and from the airports to the inner city. The CFTC may wish to pursue an advocacy initiative with the operator associations as well as the government authorities referred to with a view to obtaining a more detailed view on the current practices.

Big buses

Big buses in Malawi typically operate longer distance routes between main towns and cities. The bus sub-sector in Malawi consists of around 80 companies, including a few large fleet operators and companies that may only have one or two buses on Malawian routes.

Generally, the market segment comprises three categories of products. These are the high-end or executive coach services, deluxe or mid-range services, and lower-end or commuter services. These categories may constitute separate relevant markets with different characteristics in terms of the substitutability of the products with other transport forms such as minibuses.

Features of the executive coach service include non-stop travel between cities, hostesses, drinks and snacks, greater legroom, toilet facilities and entertainment such as movies. Main rivals operating in the segment include National Bus Company, Premier Bus Services and Ampex. Fares for this category ranged between K8500 to K9500 for travel from Blantyre to Lilongwe. Rivals monitor one another closely in the market and offer similar services and packages.

In the deluxe segment, routes may include a few short stops covering a wider passenger catchment area rather than only the two main cities Blantyre and Lilongwe. Available amenities on this service are generally less than those in the executive coach segment. The fares charged for a journey from Blantyre to Lilongwe (with stops) were approximately K6000 and operators include Ampex, Premium Bus Services, National Bus, UDK, Cititours, Zonobia and Matours Bus Company.

The commuter buses operate on routes between the main trading towns and extend to rural areas. All the dominant companies that offer executive coach and deluxe services also offer commuter services. The smaller players compete with them. Bus fares in this category are around K3500 for a journey beginning in Blantyre and terminating in Lilongwe. These operators use queuing systems at bus terminals whereby the bus will only leave the terminal or depot once it is full which may imply long waiting times for customers. One important aspect is that customers will tend to choose those buses which are nearest to being filled at the depot; and there may be three or four buses parked in the front of the queues which customers choose from.

In both deluxe and commuter bus categories, the operators are scheduled to use the bus terminals existent in all major cities. Surprisingly, these terminals are controlled by National Bus Company, which is also an operator in all segments of the big bus subsector. The competitors are of the view that the way the Company manages the terminals, queues and the queuing charges (equivalent to one passenger's fare to the final destination of the bus) are designed to limit competition in favour of itself.

Theories of harm and competition assessment on Big Bus Subsector

The controlling of key infrastructure by National Bus Company and its jurisdiction to collect queuing fees from fellow competitors appear to distort competition in big bus passenger subsector (deluxe and commuter segments). This has forced some buses to operate outside of the terminal in Blantyre due to disputes over access.Since buses do not drive around the cities seeking out customers, it appears having access to a depot where customers can access buses is important. These developments call for CFTC to inquire into issues of access to depots and terminals. One way would be to assess the rates which National Bus charges for access to the facilities to see how these relate to the charges, if any, that the company applies to their own vehicles.

Competition analysis of freight and passenger transportation by rail

Rail transport services in Malawi are provided by one operator *i.e*. Central and East African Railways (CEAR). Rail in Malawi is currently undergoing a revival under the 20-year concession agreement with CEAR signed in 1999, which includes additional investment in infrastructure. A further 30-year concession agreement and MOU signed with Vale Logistics Limited in 2011 aims at developing Nacala Corridor to facilitate both passenger and goods transportation to the port in Mozambique. The project included the construction of a new line connecting Moatize coal mine in Mozambique with Nacala port through Malawi (JICA, 2012).

Prices for rail transport from Nacala port to different cities have been provided, indicating the current rates applicable for carriage of containerised and bulk cargo (

Table ***3***). It is clear from the table that rates going to the port (export rates) from Malawi tend to be lower than rates coming to Lilongwe and Blantyre from Nacala. This may reflect the same trade imbalance which was discussed in relation to road transport, where demand for imports and their transportation is higher than for

exporting. Include in the table are rates for solid bulk cargo which were included in JICA (2012) for comparison of current versus previous rates. For the indicated routes, export rates have increased by a greater amount than import rates charged.

Table 3: CEAR rail transportation rates ($) for main routes, 2015

	Rail Distance	Rail container 40ft - Heavy	Rail solid bulk (<28.5t)[3]	Rail solid bulk – JICA (2012)	Road freight (~30t)
Nacala - Blantyre	800	3295	2228	1731	
Blantyre - Nacala	800	1912	1423	884	
Nacala - Lilongwe[4]		4088	2734	2230	
Lilongwe - Nacala		1646	1742	1121	
Lilongwe - Blantyre[5]			883		1500

Note: Rate for 40 foot container (payload approximately 28 tons) is used for comparison with the solid bulk 'light' rate which is for loads of no more than 28.5 tons. This allows for some comparability between container and bulk rates. Furthermore, this also allows for some comparisons to be made with the rates charged by road transporters, which typically involve transporting similar payloads on approximately 30 ton flat-bed trucks.

Source: CEAR, and authors' own calculations

CEAR has had to increase the price of rail transportation in recent years to account for the investments made, particularly in higher-specification trains. Given that trains are also run on diesel, the rail operator has incorporated increases in the cost of fuel in the prices charged. It is anticipated that the increased investment will draw customers from the share held by road transport given constraints in the overall trade volumes. The types of customers that are likely to be attracted by an improved rail offering are sugar exporters and fertilizer importers. Some customers have begun to split loads between road and rail.

In rail industries, it is often the case that there is a single operator. Competition in this case is potentially between rail and other modes of transport for the carriage of goods. Where industries exhibit characteristics of natural monopoly, a greater role for regulators is implied in terms of setting the rules for investment and performance to improve cost-effectiveness, efficiency and competitiveness with other modes of transport.

[3]Bulk rates estimated using the CEAR per ton rates multiplied by the load upper limit of 28.5 tons.
[4]Road transport rate is around $3100 to $4000 from Beira to Lilongwe.
[5]Same rate is applicable in both directions on this route.

Competition analysis of freight and passenger transportation by air

The Department of Civil Aviation is responsible for the implementation of government policy with respect to aviation, including overseeing the airport operations and regulation of the sector. The facilities at major airports in particular are managed by the Department on the air side, which includes management of concession agreements for passenger and cargo handling, navigation and slot allocation, fuel supply, catering and fire services; while Airport Developments Limited (ADL) mainly handles the land side that management of infrastructure and buildings, housing, freight tenant leases, car park and terminal facilities.It is also a signatory of certain commercial agreements.

On the land side, it appears most services are provided by a single operator or provider although there is no regulation that requires that there only be a single provider. Key services are provided through a state-owned concessionaire, Lilongwe Handling Company (LHC). These include passenger and ground handling services. Air Cargo Limited (ACL), which is also owned by the state, deals with cargo handling and mail services under a five-year concession agreement. The agreements held with these entities are usually extended when their term expires, without advertising in some cases for alternative providers to bid.

A commonly stated constraint for airlines and service providers in Malawi's main airports is that demand in terms of the volumes of air traffic to and from Malawi for both cargo and passenger transport is low. This means that the volumes handled are so limited that it would not be feasible to have multiple operators providing any given service bearing in mind that investments in air industry tend to be bulky and expensive hence requiring high economies of scale to be viable.

Fuel supply appears to be the only service which is provided by a private concessionaire not linked to government for the main airports. Puma Energy is responsible for the supply of fuel to the Kamuzu and Chileka international airports under five-year agreements, and the company owns the requisite infrastructure such as tanks and piping. ADL has sought to bring in rival suppliers. Around two years ago, Total looked into entering the market for supplying jet fuel in Malawi. However, the firm was apparently deterred by the fact that they would have to invest in their own additional infrastructure, which investments would not be justified by the level of

traffic. The outcome is that the price of jet fuel is said to be one of the highest in the region, and airlines have expressed concerns in this regard.

Overall the arrangements by which a single operator is responsible for supplying a particular service, particularly state-owned entities, necessitate a cautious approach to regulation. As stated previously, since this industry exhibits natural monopoly characteristics, it is critical that regulatory oversight is rigid but ensuring that the provider has incentives to maintain high levels of performance at prices which bear a reasonable relation to costs. This extends beyond the standard fees and tariffs charged by the Department in this case, such as landing and air navigation fees, parking and security tariffs, and passenger service taxes. The oversight should also ensure that the various concessionaires charge fees which can be justified by their costs and encourage profit maximization through minimizing costs, rather than charging monopoly rents (Mondliwa and Roberts, 2013).

Competition analysis of passenger transportation by air

There are six airlines that have international (regional) route-pairings which include one of the main airports in Malawi and include Malawian Airlines, Ethiopian Airlines, Kenya Airways, South African Airways and Proflight.

The entry of both regional low cost carriers (LCC) such as Proflight(from Zambia) is especially significant to competition. The LCCs provide consumers with alternatives in the market often with lower fares. For instance, the entry of Malawian Airlines triggered a huge fare reduction by dominant players such as SAA and Kenya Airways.

Competition in Malawian air travel must be viewed in the context of regional rivalry between carriers given an especially small local market in Malawi. An important requirement is to make sure that entry requirements for new entrants are as far as possible simple, and relatively affordable to comply with in a reasonable period of time. At present the Department’s process for the registration of new airlines in Malawi includes acquiring air service licence, air operator’s certificate, financial evaluation, airline experience, level of personnel available, and the overall business plan of the applicant. Several of these requirements are statutory or subject to international conventions, and as such cannot be sidelined.

Competition analysis of freight transportation by air

Currently, international air cargo services are provided by SAA, Kenya Airways and Emirates Airline for heavy cargo. There are also specialised cargo carriers operating in the market – such as DHL. Limited cargo can be carried in passenger planes as majority of cargo is transported by road at least within the region. Dynamics in the market for cargo transportation are influenced by the capacity of airlines to carry cargo and the rates which they charge.

Rates for cargo transportation are recommended by the International Air Transport Association (IATA) although several airlines undercut this rate and offer different rates in the market. As in road transport, rates tend to be asymmetric on inbound versus outbound routes. One example given is that the general cargo rate to London from Malawi is around $4/kg while the inbound rate from London is approximately $10/kg or higher.

Considering the number of operators, it appears that there is low level of rivalry in terms of cargo transportation by air. This emphasizes the need for greater openness in terms of maintaining low barriers to entry for carriers wishing to operate on these routes. Regulators are required to balance the interests and incentives of private investors and the state as shareholders of an airline (Malawian Airlines), versus those of the public at large as actual (and potential) customers of air travel in Malawi – to the extent that increased regional rivalry brings down transport costs for consumers. Regulators also need to ensure that entry by airlines to this market is not impeded by regulation which is unduly onerous or restrictive. To the extent that this is possible, the CFTC should involve itself in the process of improving regulations in this regard.

Competition analysis of freight and passenger transportation by inland water transport

The National Transport Policy also focuses on improving private sector participation and investment, and ensuring market forces determine entry and exit of players and the setting of price structures in shipping and port services, amongst other objectives (Republic of Malawi, 2015a). The Department of Marine Services carries the role of regulating the sector.

Lake Malawi is the locus for the majority of inland water transportation in Malawi. The lake is situated along the borders of Malawi, Mozambique and Tanzania. It has four operational ports namely Chilumba, Nkhata Bay, Chipoka, and Monkey Bay. Each port can be accessed by road; and Chipoka is the only one with links to the railway system.

Service delivery at these facilities is maintained by private enterprises. Malawi Shipping Company (MSC) is responsible for shipping services while Malawi Ports Company (MPC) is responsible for the management of the four ports (Republic of Malawi, 2015a). Both MSCMPC operate under a 35-year concession agreement and are owned by the same majority shareholder. MSC is the only provider of floating deck maintenance facilities i.e. dry dock vessel maintenance on the lake.There are also Mozambican and Tanzanian vessels operating on the lake, and making use of MSC maintenance facilities.

In order to access various port services, operators pay fees including berthing fees, storage, parking fees, and fees that account for the provision of water and electricity over to MPC. Fuel is provided at the ports by different fuel companies including Total and Puma Energy.

Freight transportation by marine vessels

Marine vessels are licensed to operate on different routes along the lake by the Department of Marine Services. Some vessels are restricted to a radius around a particular port on the basis of vessel capacity, safety equipment available, sanitary facilities, navigator equipment with which the vessel is equipped, and catering capacity, amongst other factors. Not all vessels are licensed to travel across the lake to Mozambique or Tanzania – currently a Mozambican-registered vessel is permitted to cross the lake on the basis of an agreement between the governments of these countries. The agreements are tied with cabotage restrictions although there are some allowances in terms of a certain volume of cargo or passengers given a lack of capacity in terms of vessels between the three countries to meet demand. Currently MV Chambo holds the rights for this form of cabotage.

The main cargo vessels operating on the lake are owned by MSC and has no significant competitors in terms of the operation of cargo vessels. The main cargo

route for the MSC vessels terminates at Chipoka which connects to both rail and road networks that allow for connections to Lilongwe, Blantyre and Nacala.

MSC's three main cargo vessels Katundu, Karonga and Viphya Tug/Pontoon together account for approximately 70% of capacity on the Lake measured in terms of vessel load capacity. The main MSC container vessel MV Katundu handles 750 tons, MV Karonga can handle approximately 300 tons, and Viphya Tug, a third barge and tug vessel, can load approximately 600 tons. Most small-scale rivals operate passenger and not cargo vessels on the lake. There are only a few other small vessels involved in the transportation of light cargo as well as those such as MV Illala that are able to carry both passengers and cargo.

Fares charged by MSC for cargo services are determined by the company, although they do notify the Ministry when changes are proposed. It appears MSC has the advantage of scale economies as the only operator and has the scope to reduce its fees.

Passenger transportation by marine vessels

MSC faces some competition from small vessel operators in passenger transportation. According to the Department, MSC has lost customers in recent times to smaller passenger vessel operators that charge lower fares on the same routes. MSC appears to have an advantage of scale economies as the only operator and has the scope to reduce its fees; and has responded to competition in the market in terms of their pricing.

Competition most likely takes place in localized geographic markets surrounding the major inland ports. While the current levels of competition may be undermined by the fact that MSC is both an operator and a provider of key services and infrastructure in the market, there does not seem to be cause for further intervention in terms of passenger transportation at the lake. It may suffice for the authorities to ensure that the terms and rules of access granted to rival operators, particularly small operators, are no less favourable than those which MSC applies to its own vessels unless reasonable cause can be shown for any differentiation. This would require an assessment on the current terms of access of each operator to key services in the market, and of any issues or complaints that have arisen regarding the quality of access or denial of access that has prejudiced rival operators.

Competition analysis of the provision of shipping and port services on Lake Malawi

Likely competition concerns in this sector relate primarily to the manner in which the concessionaire is regulated to ensure that rivals are not impeded from entering or competing across the various services provided. Given the high fixed cost nature of port facilities as well as vessels, and low passenger and freight volumes on the lake, it is expected in this type of market that only a few or even a single player is involved in providing maintenance service in the floating dock, for instance. In theory at least, this is needed in order for operators to be able to achieve scale economies and returns on investments made.

In port and sipping services, entry of other or alternative service providers may not serve the intended purpose in any event as it appears that customers of MSC such as cargo vessel operators wishing to access different ports are not likely to make a choice in terms of the port that they will use on the basis of the port with the most cost effective or efficient service provider. Rather, choices are more likely to be made on the basis of the defined routes for which the vessel is licensed, and importantly the destination port of the cargo.

Specifically, rivalry could be stimulated if different service providers were allowed to enter and be assured that if they performed well in a particular period at a port they would earn the right to operate at another port in subsequent periods. This could generate a form of quality-based competition with incentives for providers to maintain high efficiencies and safety records which is important given that price is not likely to be the most critical factor in operator choices regarding ports.

The above scenario implies a greater role for the Department in regulating aspects of the concessionaries market conduct that affect any potential for greater rivalry, which is a key objective of the Department. The regulators should also ensure that MSC charges fair prices and provides standard maintenance services to its competitors. The ability to manipulate the quality of access of rivals is likely to have the effect of raising rivals' costs or reducing their revenues, which is consistent with prohibited practices under Section 33 of the Competition and Fair Trading Act as it is concerned with refusal to deal.

Conclusion and Recommendations

Basing on various findings of this study, the following conclusions and recommendations have been drawn:

1. In road transport, there has been greater competition in recent years with an influx of small domestic operators and Mozambican but this has not been reflected in lower priced transport. CFTC should investigate to find the anticompetitive elements that may be responsible for that.
2. There is strong evidence of coordinated conduct facilitated by associations in freight forwarding or brokering. Clearing and Forwarding Agents Association of Malawi (CAFAAM) and the Indigenous Customs Clearing and Forwarding Association (ICCFA) were involved in agreeing tariffs. CFTC should investigate and take necessary enforcement measures to curb the cartel conduct.
3. Prices appear to be the same for each category of passenger transport operators (buses, minibuses and taxis). There is scope for CFTC to monitor areas of risk such as queuing systems and the conduct of marshals at minibus depots.
4. In terms of passenger transportation by bus, National Bus Company appears to leverage its control over access to key infrastructure to the disadvantage of its rival operators. CFTC should facilitate an advocacy initiative with Ministries of Transport and Local Government to address issues of access and management of terminals.
5. The members of association of taxi operators, in cooperation with tourism and airport authorities, appear to have agreed flat rates that are charged on services rendered to and from the airports. The CFTC should pursue an advocacy initiative with the operator associations as well as the government authorities referred to with a view of obtaining a more detailed view on the current practices and how to address the anticompetitive concerns.
6. There are natural monopolies in rail and marine transportation as expected. CFTC should engage with the responsible regulators to ensure that the terms and conditions of access to the key infrastructure by the concessionaires are fair. This may involve partnering with the regulators on approaches to be employed to assess the performance of the concessionaires and the terms of access for competing service providers.

7. There are concerns in airport services given monopoly concessionaires and service providers across various services. This may be a function of limited demand on major routes domestically and internationally in Malawi such that any intervention by CFTC and other market regulators should be to ensure that the terms of access to various facilities are fair including prices that reflect costs and not monopoly mark-ups.
8. Competition in air transport sector is low. CFTC should collaborate with the Department of Civil Aviation to improve the policy and regulations (including those on bilateral agreements) for the approval of more, particularly smaller airlines to enter the Malawian market.

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