‘FORMALISING’ PARATRANSIT OPERATIONS IN AFRICAN CITIES: CONSTRUCTING A RESEARCH AGENDA

PETER WILKINSON

Associate Professor PB Wilkinson, School of Architecture, Planning & Geomatics,
University of Cape Town, Private Bag X3, Rondebosch 7701
Email: Peter.Wilkinson@uct.ac.za, Tel: 021 650 2387, Fax: 021 650 2383

ABSTRACT

In many African cities, as in cities in most parts of the ‘developing world’, informal, unscheduled and largely unregulated paratransit operations represent a significant – if not the only – mode of motorised public transport available to the great majority of residents. Such operations are essential in sustaining routine daily life in the cities in which they occur, but the service they offer is often compromised by poorly maintained and frequently unroadworthy vehicles, inappropriate and unsafe driver behaviour, and fierce, often violent, competition between rival operators both for specific routes and for passengers on those routes. For these and other reasons, attention in some cities – and, in particular, in certain African cities – has been focused on the questions of, firstly, whether an effort should be made to ‘formalise’ or regulate paratransit operations as part of an integrated public transport system and, secondly, if so, how any such process of regulation should proceed. Central to both questions are considerations of the extent to which it may be possible to better reconcile the interests of operators and those of their passengers and their employees (drivers, driver assistants, rank marshals, etc) through such processes of ‘formalisation’ or regulation.

This paper explores a selected literature around these essentially ‘institutional’ issues in order to identify a provisional set of appropriately framed questions through which to shape the agenda of a proposed research programme. The first section of the paper seeks to provide a preliminary statement of the programme’s research focus and a first cut at specification of the overarching research question. The second – and major – section of the paper then elaborates the key research questions in terms of the rationale for regulation of public transport services, as well as the counterarguments directed at it, the possible objects or focuses of regulatory intervention, and the range of possible regulatory regimes that might be deployed to manage competition in the public transport sector towards broadly defined ends. A brief conclusion suggests that the case study approach adopted for the research programme offers a potentially rich field for the comparative exploration of these questions, as well as pointers to an appropriate method of approaching the task of ‘formalising’ or regulating paratransit operations in contextually diverse urban situations.

In view of the very preliminary stage reached in the research programme at the time of writing, only limited reference is made to the current circumstances of paratransit operations in the three case study cities incorporated in it: Cape Town, Dar es Salaam and Nairobi.

1. INTRODUCTION: A PRELIMINARY FRAMING OF THE RESEARCH FOCUS

'Paratransit' has been variously defined as "an alternative mode of flexible passenger transportation that does not follow fixed routes or schedules" (Wikipedia entry: http://en.wikipedia.org/wiki/Paratransit; accessed January 2008), and – perhaps rather more pertinently for our purposes here – as encompassing "publicly available passenger transport services [operating] outside the traditional public transport regulatory framework" (World Bank 2002: 101). The latter definition clearly situates paratransit as a sector or component of a public transport system which exists, at least to some extent, beyond the reach of 'traditional' – i.e. formal, statutory – frameworks of regulation and which, therefore, may be considered in some cities to be in need of 'formalisation' or regulation of some kind.

Internationally, paratransit operations have deployed a diverse range of vehicles – from motorised (or non-motorised) three-wheeler taxis, through shared sedan taxis, minibuses and midibuses, to full-size conventional buses. The very diversity of theses vehicle types has been construed as an index of the most important characteristic of paratransit (or 'informal transit') operations – their high degree of responsiveness to changing market conditions, or 'demand responsiveness'. In this regard, Robert Cervero has suggested that:

> …the hallmark of informal [transit] entrepreneurialism is open competition. Services are designed and priced to satisfy customers. Operators receive no subsidies or capital assistance. Unencumbered by rules and bureaucracy, independent operators are ultra-responsive to emerging and shifting market trends. (2001: 16).

However, paratransit operations are by no means generally regarded as unproblematic by urban transport planners and authorities. Among the less desirable operating characteristics of the sector which have been noted in the literature – all of which are in one way or another clearly associated with its condition of informality – are:

- the prevalence of 'non-corporate' business practices, of which lack of investment in vehicle maintenance, insurance and replacement, exploitative and even abusive labour relations, evasion or ignorance of tax liability and other statutory business regulations, and the cursory or non-existent exercise of basic management controls are probably the most important;
- erratic or flexible scheduling – if any – of services, often allied with the practice of 'cream skimming', in which operators compete fiercely for passengers in peak periods and on primary routes, but provide poor or no service in off-peak periods and on low-demand routes;
- aggressive and often dangerous on-road driver behaviour, including overloading, cutting off competitors and ignoring traffic regulations and signals, sometimes combined with rude or disrespectful attitudes to passengers – all of which are seen to be occasioned by conditions of 'excessive competition' or 'overtrading' in the sector; and
- a relatively poor safety record, with many accidents quite obviously linked to inadequate or non-existent driver training, the effects of unregulated on-road competition noted above, and the negligence or absence of essential vehicle maintenance. (World Bank 2002, Cervero & Golub 2007)

It has been for just such reasons – and because it has been suggested that their continuing presence also serves effectively to undermine efforts to develop more integrated and sustainable public transport systems (World Bank 2002: 104) – that authorities in many cities of the developing world have identified the need to regulate

paratransit operations in some way. On the other hand, the evident value of the paratransit sector in serving all or a large majority of basic mobility needs, particularly of the urban poor, in situations where formal public transport services are provided only minimally, if at all, significantly complicates the question of the form, timing and extent of appropriate regulatory interventions.

The flexibility and market responsiveness of paratransit activities continue to be celebrated by some commentators as evidence of a quasi-heroic spirit of rugged entrepreneurialism (e.g. Boudreaux 2006 on the South African minibus taxi industry as representing "the wellspring of black entrepreneurial activity").[1] Such commentators – as well as others possibly less committed to this particular brand of market fundamentalism – further tend to suggest that the principal problems associated with paratransit operations might be managed through a process of 'self regulation' by informally constituted but fully functional operators' associations (Boudreaux 2006; Cervero 2001; Sohail et al. 2006). Perhaps unsurprisingly, however, such processes of informal self-regulation tend to generate their own problems. Two of the key issues which have been identified are, firstly, that without public oversight, operators' associations respond primarily to the interests of their members rather than those of their passengers, and, secondly, that because it is not based on legally recognised rights of exclusion, self-regulation of competition is often enforced through violent means, not excluding the assassination of rivals and aggressive intimidation of passengers (cf. World Bank 2002: 103-104).

In the face of such conflicting considerations of the possible role and effects of paratransit operations, the influential *Urban Transport Strategy Review* published by the World Bank in 2002 suggests that "[t]he critical question is what, if anything, public authorities should do to respond to or control this market-oriented response" (World Bank 2002:104). In important respects, this points very directly to what may be seen as the primary focus or overarching concern of the research agenda which is being constructed here:

> *On the assumption that something beyond informal self-regulation of the paratransit sector is required or desirable in at least some African cities, including those to be studied in this research programme, what specific form – or forms – of regulation or 'formalisation' of its operations might be considered appropriate*?

This framing of the research focus leads us immediately into a series of subsidiary or supplementary questions concerning the nature and the objects of 'regulation', the rationale for undertaking it (and the counterarguments), and the range of possible regulatory regimes. These are addressed sequentially in the next section of the paper.

2. ELABORATING THE KEY RESEARCH QUESTIONS

2.1 Regulation: a necessary precondition for effective competition?

The term 'regulation' can encompass multiple forms or modes of governmental (and non-governmental) intervention in various and diverse arenas of economic and social activity. In the conventional discourse of international development agencies, however, it refers to "the sustained and focused control, normally exercised by a public agency, over activities that are valued by a community … [which] can either prevent undesirable behaviour, actions and activities or enable and facilitate desirable ones" (UNESCAP 2001: 1; also cited by Majeke 2003: 7). This definition explicitly attaches a locus of public authority or agency to regulatory practice and accords with the connotation generally associated with the term in English. Precisely because of this defining characteristic of specifically *public* intervention – to control or direct economic activities, in particular – regulation is also the central focus of much ideological and political contestation.

Turnbull (1999 n.p.) sharply contrasts the position of 'neo-liberals' – for whom "competition is always preferred to regulation", the "principal purpose [of which] is to ensure free competition" and which is "only necessary in the event of market failure" – with that of the 'social-institutional school' – which regards "free markets as neither natural nor desirable … [but] as institutions governed by a set of rules, many of which are framed by the public authorities". He concludes that, for the latter – the 'social-institutionalists':

> The key question, therefore, is not *whether* to regulate markets, but precisely *what* and *how* to regulate. Regulation, in other words, is not about market failure but the very constitution and definition of the market. (ibid.; original emphases)

This position is, of course, quite different from that which prevailed in the 1980s and 1990s among international development agencies, including the World Bank, that "markets are better at meeting needs than planning, and private companies are better at delivering goods and services than the public sector" (Turnbull 1999 n.p.). In the transport sector, the propagation of this view led to a wave of deregulation in many counties, accompanied by 'commercialisation' and privatisation of the public provision of passenger transport services, whose outcomes in terms of "lower costs and fares, higher productivity and service levels, service innovation and greater levels of investment" have been fiercely contested by its proponents and critics (ibid.). Subsequently, a more nuanced position has emerged – at least within the World Bank – in which the need to manage or re-regulate competition in the public transport passenger market is explicitly acknowledged and the focus of attention has shifted to identifying and specifying the form of the appropriate regulatory (or competitive) regime:

> The policy message is clear. Well-managed competition can be of great benefit to the poor, but badly regulated competition can have some very damaging consequences. Because of this, it is crucial to choose a competitive regime appropriate to the objectives of the procuring authority, the nature of the system being managed (particularly its size and number of modes), the potential strength of competition in the supply market, and the administrative capability of the procuring authority ('getting the right framework'). It is also crucial to make sure that the generic system is well adapted to the local circumstances and that it is well managed and regulated ('getting the framework right'). (World Bank 2002: 98)

All of this suggests that the questions both of 'what' to regulate in the provision of public transport services and of 'how' to regulate them should be addressed in the proposed programme of research. The issue of specifically which aspects of public transport sector activity should be regulated clearly requires some understanding of any significant lines of differentiation between the various potential objects or focuses of regulatory intervention. The identification of product and labour markets, and of industry 'structure' and 'conduct', as such objects of regulation is briefly reviewed in Section 2.3. Drawing on a strand of what is now a fairly well-established literature in this regard, the problem of what type of framework or regime of regulation would be appropriate to the local circumstances of public transport provision is then considered in Section 2.4. Before proceeding to these discussions, however, it may be useful to take a moment to reflect summarily on the question of *why* the regulation of economic activities such as the provision of public transport services may be regarded as necessary in the first place.

2.2 The rationale for regulation (and its counterarguments): 'whether' to regulate

Proponents of the need for regulation in the provision of public transport services generally identify a number of principal 'economic arguments' in support of their position, sometimes supplemented by certain 'social arguments'. The most important of the economic

arguments are generally considered to be:

- that regulation guarantees provision of an essential or desirable public good in the form of adequate public transport services, where the market would not offer this or there has been overt market failure;
- that regulation is necessary to manage the externalities or spill-over effects associated with unregulated competition, such as intensified traffic congestion and the increased pollution generated by poorly maintained vehicles;
- that regulation is required to address the potential abuse of market power by natural or other monopoly producers, which might involve the restriction of services or the raising of prices (to realise economic rent), or the restriction of access to the market by other producers; and
- that regulation is necessitated by situations of excessive competition, in which the presence of too many producers or suppliers serving a particular level of market demand drives down prices to the point at which revenue becomes insufficient to cover operating costs comprehensively and to ensure future investment.
  (Turnbull 1999 n.p., also cited in Majeke 2003: 8-9; UNESCAP 2001: 2-4)

Turnbull (1999 n.p) suggests that :

> In order to protect and promote public interests, regulation seeks to enhance the efficiency of markets [to overcome instances of market failure] and ensure the provision of social rights. The social basis of regulation, however, is often justified on the basis of an economic rationale. Put differently, social regulation is widely regarded as secondary to economic regulation.

He goes on to identify the principal social arguments for regulation as being to ensure a level of employment security and acceptable working conditions within the sector, and to promote its productivity and levels of service quality (ibid.). An additional social argument, which does not rest on any immediate economic rationale, would be the need to make provision for members of a population who might otherwise be excluded from access to public transport services on the grounds of affordability or disability – a justification formulated explicitly in terms of distributional or social justice considerations (UNESCAP 2001: 4).

The counterarguments to regulation are usually framed around the assertion that open or free markets are inherently more efficient in delivering services than planned provision and that public intervention is only justified to correct or overcome demonstrable instances of market failure – although the more extreme market fundamentalists would argue that such intervention generally only serves to worsen the effects of the original failure. A further problem identified by critics of regulation is that of potential ‘regulatory capture’. This refers to the possibility that a regulatory agency established to protect consumer or user interests might substitute the interests of the industry it regulates for the ‘public good’ it supposedly is intended to promote, thereby creating economic rents and implicitly encouraging rent-seeking behaviour among regulated firms and any political representatives with whom those firms may have developed a lobbying relationship. A final counterargument advanced by such critics is that regulation engenders unemployment through placing restrictions on the entry of new firms into a particular economic sector, in this instance the provision of public transport (Majeke 2003: 9; Turnbull 1999 n.p.; Sohail et al. 2006: 178-179).

It has already been indicated (in Section 2.1) that the balance of opinion internationally now seems to be that some level of appropriately targeted regulation is necessary to

ensure effective or societally beneficial competition in the public transport sector. However, in principle, any review of possible policy changes or institutional transitions should cover the full range of options, including those of either deregulating the provision of public transport services altogether or not introducing enhanced – or perhaps any – regulation in the first place. It is important, therefore, to recognise the need to review the general arguments sketched here in terms relevant to the specific circumstances pertaining in each of the cities selected for case study *before* proceeding to elaborate what is to be regulated and how it is to be done.

2.3 The potential objects of regulation: 'what' to regulate

In addressing the regulation of economic activities, a distinction is sometimes drawn between the regulation of 'structure' – specifying which firms or entities can engage in particular economic activities – and the regulation of 'conduct' – specifying how firms or entities should behave in undertaking those activities. Turnbull (1999 n.p.) notes that structural regulation seeks to remove "incentives or opportunities for undesirable behaviour", while conduct regulation addresses "not undesirable underlying incentives but the behaviour that they would otherwise induce". Because, in general, information on an industry's structure is more readily obtained than information on the behaviour of firms within it – which "involves intensive monitoring and enforcement" – "public agencies often prefer structural rather than behavioural regulation", focusing on restrictions to entry, for example, rather than on predatory pricing practices or other manifestations of anti-competitive behaviour (ibid.).

Turnbull (1999 n.p.) goes on to draw a further distinction between 'labour market regulation' – which "should be directed towards job security and the standardisation of basic terms and conditions of employment in order to create a 'floor' under (labour) cost competition" – and 'product market regulation' – "directed towards minimum standards for safety and service quality (e.g. frequency, comfort, reliability, punctuality, passenger information, etc) and measures to prevent excessive competition or the abuse of market power ". He argues that "deregulation of the product market has undermined labour market regulation" and that "[t]he disjunction of product and labour market regulation is certainly to the detriment of employees, invariably to the disadvantage of consumers … and possibly harmful to the long-term competitiveness and profitability of the private operator". In recognition of this, "[t]he objective for public policy-makers in the future should be to create complementary systems of product and labour market regulation, and in doing so lay the foundation for both greater equity and efficiency in the transport sector" (ibid.).

The merit of Turnbull's analysis for our purposes here is that it draws attention to the need to consider the design and installation of a regulatory framework within somewhat broader and more carefully defined parameters than might otherwise have been the case. In particular, it suggests that any such framework should probably include consideration of the regulation of 'conduct' or operational practices within the public transport sector alongside the perhaps more readily instituted regulation of its 'structure'. This has obvious, but sometimes overlooked, implications in terms of establishing or expanding the capacity to enforce compliance with regulations which seek to govern the behaviour of public transport operators and drivers, among others. The further inference to be drawn from the analysis is that regulation of the public transport 'product market' to manage competition and ensure appropriate levels of service for passengers should not be undertaken in isolation from some appropriately targeted consideration of its possible impact on the relevant labour market. This, again, is something that might otherwise be unintentionally disregarded.

2.4 A range of possible competitive/regulatory regimes for urban public transport systems: 'how' to regulate

Since the late 1990s, international development agencies have devoted considerable attention to the specification of a range of possible competitive/regulatory regimes intended to secure the effective delivery of (primarily) road-based public transport services. The typology of such regimes and their 'transitions' developed initially for the United Kingdom's Department for International Development (Halcrow Fox 2000), and subsequently propagated through the widely-circulated *World Bank Urban Transport Strategy Review* (World Bank 2002), represents what may now be regarded as the benchmark or touchstone of 'international best practice' for projects aimed at transforming or upgrading road-based public transport operations in both developed and developing countries (Figure 1).[2] Ordered along an axis of sequentially 'less regulation' (and 'less public funding'), the typology identifies the following regimes or frameworks for managing, or introducing, competition in the public transport sector (Bayliss 2002: 5-7; Halcrow Fox 2000: 2-4):

- **public monopolies**: tend generally to be regarded as less efficient than competitive regimes but have the advantage of enabling direct and close control by public authorities of service and fare levels, as well as facilitating the meeting of social needs and commitments (cross-subsidisation, etc);
- **management contracting**: enables private sector capabilities to be deployed in service design, operational control, labour management, and equipment procurement while primary assets remain in public ownership;
- **gross cost contracting**: a public agency awards contracts on the basis of competitive tenders by private sector operators to provide specified services for a specified period on one or a cluster of routes for a specified price, thus transferring the 'production risk' to the successful bidder but shielding them from the full commercial (or 'revenue') risk, in that the public agency receives farebox revenue but pays the contracted operator the agreed contract price;
- **net cost contracting**: a public agency awards contracts to provide specified services for a specified period on one or a cluster of routes at a projected cost, but transfers at least part of the 'revenue risk' to the contracted operator, who receives the farebox revenue but may or may not also receive a subsidy from the public agency should the operation prove unprofitable;
- **franchising**: the role of the relevant public agency is limited to setting fares and service level parameters, while the franchised operator is free to plan service delivery to optimise 'internal' efficiencies; some transfer payment between the public agency and the franchised operator – in either direction, as subsidy or as royalty – may be involved;
- **concessioning**: the relevant public agency imposes only a few basic requirements and assumes no financial responsibility at all for the service provided by the operator awarded the concession; the latter therefore assumes complete commercial responsibility for the operation of the service, as well as the associated risk;
- **quantity licensing**: enables public authorities to exercise a level of control over the intensity of competition in a particular area or on a particular route by limiting the number of operators awarded licences to operate there;
- **quality licensing**: sets no limits on the number of operators or vehicles serving a particular area or route; the role of the public authority is limited to ensuring vehicle roadworthiness and appropriate operating practices (including on-road driver behaviour);
- **open market**: public agencies set no constraints on the provision of services other than requiring conformity to general laws and regulations.

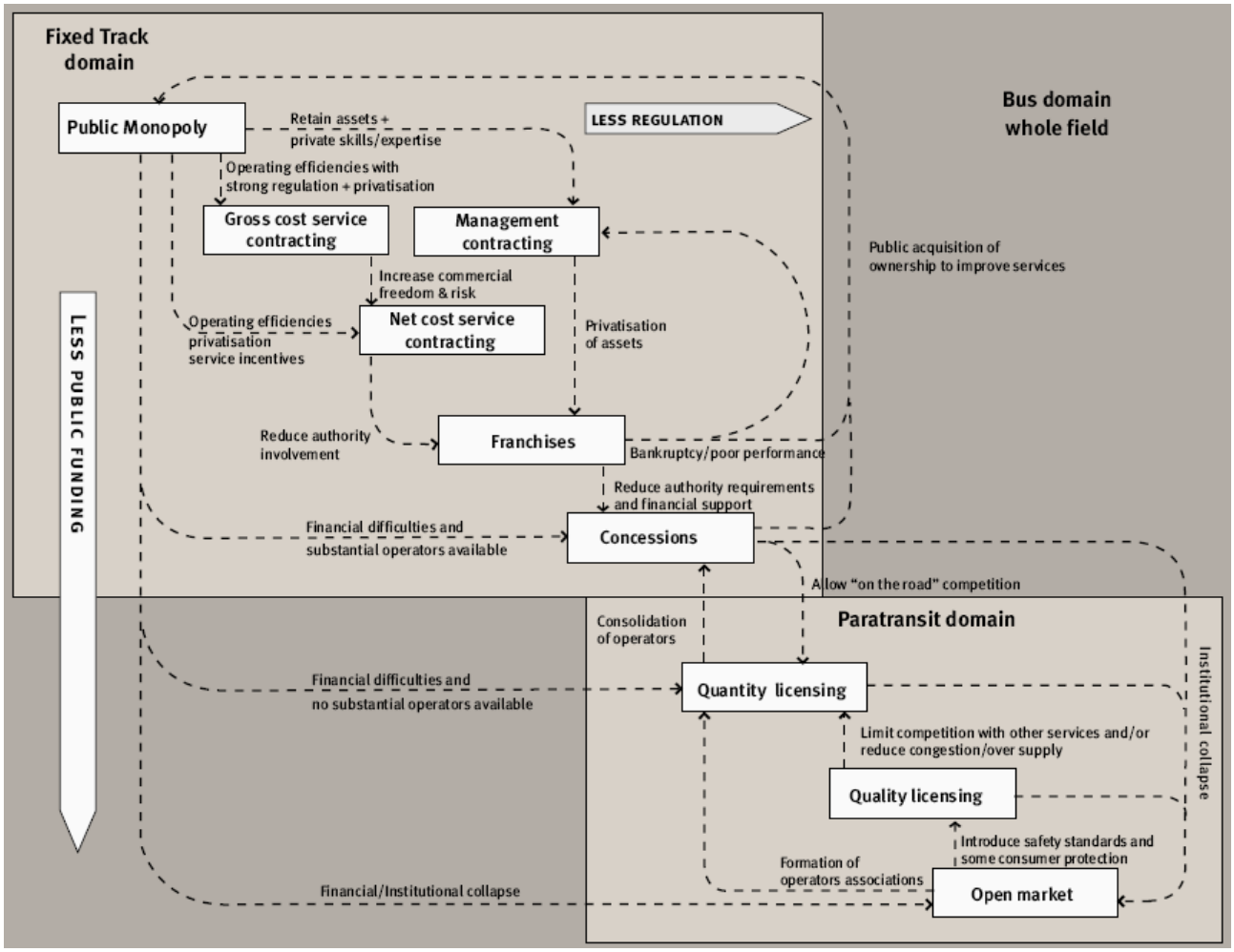

Figure 1 A typology of competitive/regulatory regimes for urban public transport provision and their potential transitions

Source: Bayliss 2002: 6; reproduced in Halcrow Fox 2000: 46 (Figure 5.1), World Bank 2002: 97 (Figure 7.1), UNESCAP 2001: 142 (Figure 16).

Within this schema, the regulatory regimes associated with management contracting, gross cost contracting, net cost contracting, franchising and concessioning are all considered to provide for different modes and levels of competition 'for the market', while quantity licensing, quality licensing and open market regimes provide for varying degrees of competition 'in the market'. The 'paratransit domain' identified in Figure 1 encompasses the three regime types providing for competition 'in the market', with the 'formalisation' of paratransit operations – their transition to a more tightly regulated system of planned and scheduled services – then evidently requiring the installation of one of the regime types associated with competition 'for the market', and – obviously – of an increased level of regulation.

The conditions which may affect or initiate the transition from one regime type to another are summarily indicated in Figure 1. In general, however, it is recognised that "[t]here is no one best regulatory regime and for each situation the most appropriate generic format should be selected and then customised to suit the [relevant] city's particular characteristics" including:

- its geographic, demographic and socio-economic characteristics;
- current transport policy, pricing and public transport objectives; and
- existing types and modes of transport.

(Bayliss 2002: 8; cf. World Bank 2002: 98, quoted above: p.4)

Explicit acknowledgment of the need for such adaptation or 'customisation' of the generic regime formats to the contextual specificity of different local situations is obviously relevant to the formulation of the research agenda under consideration here. The cities selected for case study vary widely in terms of both their current institutional frameworks for the provision of public transport and the historical trajectories through which those frameworks have evolved. In particular, despite the emergence and increasing market share of paratransit minibus-taxi operations in Cape Town – as well as a substantial overall shift from public to private motorised transport – formal, scheduled passenger rail and bus services remain dominant in the city's public transport sector. This is in sharp contrast to the situation both in Nairobi, where the market share of formal, scheduled public transport services is relatively limited, and in Dar es Salaam, where it is negligible (Table 1).

Table 1 Modal share of public transport services in the case study cities

City	***Scheduled ('institutional') public transport services***	***informal paratransit ('micro-operator') services***
Cape Town	71%	29%
Dar es Salaam	3%	97%
Nairobi	30%	70%

Sources: CoCT 2006 (for Cape Town), Godard 2006 (for Dar es Salaam and Nairobi)

In addition – although this obviously remains to be investigated methodically – it seems clear that the relative institutional capacities of the three cities to undertake the planning, regulation and management of 'formal' provision of public transport services are likely to be quite different. In general, such variation would be ascribed to the divergent and path-dependent development trajectories of the transport systems of each of the three cities concerned, manifested currently in the greater or lesser adequacy of their stocks of infrastructural assets and in the disparate capabilities, both of relevant public sector agencies (across different spheres or levels of government) and of formal private sector operators, to secure the provision of more effective public transport services.

The evident implication of all of this is that such contextual specificities would certainly need to be comprehensively explored in order to formulate appropriately grounded proposals for regulatory reform in each of the case study cities. In and of itself, this task of contextual or situational analysis would need to be focused around a set of carefully and systematically framed research questions directed at uncovering both the key patterns and the current dynamics of change of institutional structures and practices in the field of public transport provision in each case. The specification or elaboration of that set of questions does , however, lie beyond the intended scope of this particular paper.

3. CONCLUSION

Prospectively, the three cities selected as case studies for the research programme seem to present a potentially very rich field for comparative enquiry into the range of questions which have been elaborated only somewhat schematically here. In significant ways, Cape Town, Dar es Salaam and Nairobi offer clear contrasts as localised arenas of urban passenger transport provision and development – a state of affairs which provides abundant space to explore the array of diverse problems and possibilities associated with projects to 'formalise' and incorporate paratransit operations into integrated public transport systems in each of them.

Initial investigation suggests that such projects appear to be at quite different stages of design and implementation in each of the three cities, as well as embodying objectives and focuses of intervention which diverge in important respects. It is probable, then, that the research exercise will not in any sense produce a unitary model of 'best practice' to be applied generally and unproblematically to the task of 'formalising' or regulating paratransit services in African cities. Rather, it is to be hoped that it will yield critical insight into the particular difficulties and prospects of carrying out such tasks under the specific circumstances which prevail in each case, as well as providing a methodological framework or approach that could be deployed in other cases.

4. NOTES

1. By way of contrast, Browning (2006) uncovers what he sees as an 'entrenched' mindset among operators in South Africa's minibus-taxi industry, which makes them "wary of change" that would require the adoption of standard management and business practices, "even though the government is insisting, and the private sector encouraging …, [them] to do so" (p.10).

2. The 'regime typology' has also been incorporated in the World Bank-hosted 'Urban Bus Toolkit' website (http://www.ppiaf.org/UrbanBusToolkit/assets/3/chose.html; accessed January 2008), which provides "tools and options for reforming urban bus systems". David Bayliss appears to have been a key figure in formulating this approach through his contribution to the Halcrow Fox report on *Urban Public Transport Competition* (2000; cf. Bayliss 2002), which has undoubtedly been a seminal influence on the subsequent framing of the approach of the international development agencies to this issue.

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