

The Evolution of Public Transport Policies in Singapore

Introduction

For the first time in Singapore's history, the shiny steel trains which move 2.5 million people each day broke down. Worse, it did so during the evening peak hour and the packed trains were stuck between stations.

On Dec 15, 2011, three trains stopped moving between City Hall and Braddell stations. Power had failed on the North-South Line and the trains were plunged into total darkness. The air-conditioning failed and the stifling heat in the carriages became unbearable. Commuters smashed the train windows to let in air. It took a full hour for the commuters to be rescued and led out of the trains. They walked through the train tunnels to the nearest station. Undoubtedly, this was the worst incident in the 24-year history of the Mass Rapid Transit (MRT) system.

Coupled with the breakdowns, the public transport network has also come under tremendous strain as population growth outstripped infrastructure growth.

For years, the promise of efficiency, market and shareholder discipline and the removal of the burden of public transport from the taxpayers seemed to work well. But as the crisis from the train breakdown suggested, problems have been building up beneath the surface. Formal¹ and informal² polls also revealed unhappiness with the overcrowding of buses and trains during peak hours.

This case explores the evolution of Singapore's policies on public transport. First, it looks at the landmark 1996 Land Transport White Paper and how it has shaped Singapore's transport landscape from the 1990s to early 2000s. It then examines the policy shifts that have occurred between the early 2000s and the present, culminating in the revised Land Transport Master Plan and fare reviews released in 2013. From there, the case will explore the rationale behind the shifts and the reactions to them, and highlight key considerations and tradeoffs that transport policy makers face when deciding on further policy adjustments.

¹Singaporeans' overall satisfaction with the public transport system dipped from 90.3 per cent in 2011, to 88.8 per cent last year, according to the latest Public Transport Customer Satisfaction Survey, conducted in October 2012, largely because of overcrowding and lack of service reliability. Source: Hetty Musfirah Abdul Khamid, Singaporeans' satisfaction with public transport drops", *Channel News Asia*, March 12 2013, <http://www.channelnewsasia.com/news/singapore/singaporeans-satisfactio/602956.html> (cited Dec 2 2013)

² A straw poll by *My Paper* of 150 respondents found that the No. 1 public-transport peeve was overcrowdedness for both train and bus commuters. Nearly half, or 47 per cent, of respondents felt that trains are overcrowded, while about 47 per cent felt the same way about buses. Source: Haley Chan and Andre C. Nevill "No. 1 peeve: Packed trains and buses", *My Paper* Feb 13 2013, <http://ride.asiaone.com/news/transport/story/no-1-peeve-packed-trains-and-buses>

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Overview of Singapore’s Transport Landscape

At the time of independence, Singapore’s bus services were provided by multiple small operators. The market was highly fragmented, and both service and safety standards were low. The cut-throat competition by the private bus companies led to poor service (due to cherry-picking of profitable routes), a lack of integration and network economies eventually resulting in the near bankruptcy of many of these companies.

The government moved in a team of civil servants, nationalised the fragmented companies and put together a tight outfit, making reasonable profits. The new entity, SBS Transit, was eventually privatised.

Until the development of the MRT system in the mid-1980s, the listed Singapore Bus Services (SBS) was the dominant player in the mass transport market. The development of the MRT lines introduced competition for SBS in the mass transport market.

By the 1990s, public transport services in Singapore were provided by two multi-modal Public Transport Operators (PTOs) – ComfortDelgro, the parent of SBS Transit, and SMRT Corporation.

As public transport was intended to serve the bulk of Singaporeans who do not own private cars, affordability was a key consideration in determining fares. The commuting public also expected good quality in public transport services. At the same time, the operators had to keep their profits healthy. Regulating public transport fares was thus a crucial and politically important balancing act between affordability, profitability and quality (see Exhibit 1), with government interventions and subsidies being the primary instruments to maintain the ‘right’ balance.

Exhibit 1: The Public Transport Trilemma



Since 1987, managing the three-way tensions of ensuring profitability and acceptable quality had been the job of the Public Transport Council (PTC), which regulates transport fares for both buses and trains. Today, the PTC implements a cap on annual fare adjustments, based on a formula that is regularly reviewed³.

The present architecture, and arguably, some of the reasons for the current transport woes can be traced to the Transport Master plan of 1996, which was a long-term and comprehensive plan, covering both public and private transport.

The 1996 Land Transport Plan: A “Social Contract”

In 1996, the Singapore Government unveiled one of its most ambitious and extensive plans for Singapore’s land transport system. It contained details on the steps the authorities would

³ In 2013, a review was conducted, and the recommended fare adjustment formula was proposed to be “Price Index-Productivity Extraction (0.5%)”. Price Index= 0.4cCPI + 0.4 WI +0.2 EI – Productivity Extraction, where cCPI is the change in core Consumer Price Index and WI is the change in Wage Index(Average Monthly Earnings (Annual National Average)), and EI is the change in Energy Index (a composite of cost changes in electricity and diesel). Source: 2013 Fare Review Mechanism Committee Final Report, <http://frmcommittee2012.sg/frmc-report/> (cited Dec 1 2013)

undertake to achieve its vision of a world-class transport system for the city-state in 10 to 15 years' time. Changes to existing schemes were proposed, such as a revision of taxi fares. New schemes were introduced, as was the case with Electronic Road Pricing (ERP), which eventually become ubiquitous in the city state.

But amid all these implementation details, the crux of the blueprint was that 75 per cent of all daily trips in Singapore would be made by public transport eventually. To reach this goal, improvements to public transport were critical. Among other commitments, the White Paper said that the government would enhance public transport, encouraging more Singaporeans to switch from cars to buses and trains, and easing traffic congestion in land-scarce Singapore. It would also boost rail and road networks so that commuters can get from, say, Tampines to Jurong seamlessly.

A number of financing issues were also addressed in the White Paper. Previously, the Government had agreed to pay for infrastructure (e.g. tunnels, stations, viaducts) and the first set of operating assets (e.g. trains, signaling systems) while the operators and consumers would pay for operating costs. At the same time, revenues had to be sufficient to accumulate sufficient reserves to replace operating assets fully when needed after approximately 30 years. In the 1996 White Paper, the government proposed to partially subsidise the purchase of replacement operating assets. Revenues from the operators would only need to cover the historical cost of the previous set of operating assets, while any subsequent increases in capital costs would be shouldered by the government. In other words, when the first set of operating assets, purchased at \$1.6 billion, was to be replaced in 2017 at a projected cost of \$6.9 billion, the operator would pay \$1.6 billion while the government would pay the balance of \$5.3 billion. The principle behind this revision was that each generation should pay for the operating assets that it consumed, rather than what the future generation of commuters would use, as was the case under the earlier financing model. Without the 1996 revision, fares would have had to increase significantly to finance replacement, and rail projects like the North East Line would not have been viable for development.

The White Paper also outlined the principles for the financing of public transport. These were: (a) Affordability: fares had to be realistic and revised periodically to adjust for justifiable cost increases; (b) Private sector discipline: operating revenue had to cover operating costs; and (c) Long-term view: there must be a sustainable policy on asset development. The key idea was to keep public transport fare increments predictable, transparent, “small and regular.”

At the same time, the authorities made it clear that such a system would not appear overnight. Instead, the White Paper was meant to be a starting point, as pointed out by then-Communications Minister Mah Bow Tan. He described the document as “a kind of social contract among the Government, the people, and the transport service providers on the kind of land transport system we want”. (See **Annex A** for additional details about the 1996 White Paper)

2000s till the Present: Impetus for Change

Many of the proposals and policies set out in the 1996 Transport White Paper have been, or are in the process of, being implemented. The overarching objectives of the White Paper have also remained consistent throughout the years—that of ensuring a well-functioning public transport system to meet the bulk of Singapore’s commuting needs, and of keeping roads smooth-flowing.

Principles that have shaped transport policy since the 1990s—long-term planning, fiscal prudence, efficient allocation of resources through market forces⁴, etc.—have also held fast.

Nevertheless, policymakers had to make significant adjustments to the basic framework set up in the original White Paper. Two triggers for these changes were: **congestion on the public transport network**, which reflected a lack of coordination between infrastructure building and rapid population growth, and the **train breakdowns in 2011**, which suggested problems with operations and maintenance by the transport operator SMRT as well as with the Land Transport Authority's (LTA) ability to regulate the industry.

Furthermore, these two problems created palpable public dissatisfaction⁵ with the Public Transport Operators (PTOs) SMRT and SBS Transit, which were seen as complacent and as having prioritised profit over service provision. The LTA, as the regulator of these PTOs⁶, found itself on the receiving end of criticisms as well.

In 2006, the LTA embarked on a review of the 1996 White Paper on Land Transport, which culminated in the 2008 Land Transport Master Plan (2008 LTMP). The 2008 LTMP laid out a slew of land transport system improvements that would be implemented over the next 10 to 15 years. This was in turn reviewed and refreshed as the 2013 Land Transport Master Plan (2013 LTMP).

An examination of the LTMPs, as well as various tweaks to transport policies implemented in the years between, reveals policy shifts which can be broadly divided into two baskets:

- a) Policies directed at Public Transport Operators
- b) Policies directed at Commuters

Managing the PTOs: Loosening Purse Strings, Tightening Centralised Control, Enabling Competition

“Sound market-oriented solutions are pivotal for a quality and efficient transport system. Ensuring that sound economic principles underpin policies that manage private transport demand, public transport industry structure, and public transport financing, has maximised the efficiency of Singapore’s transport network and ensured value-for-money capital investments.”

*The LTA Journey, 15 Years On, 2010*⁷

⁴ Quote from 1996 White Paper: “[W]e will not leave it entirely to market forces to determine the market structure and fares. However, we will tap competition and market forces wherever possible to impel operators to run efficiently, improve services and provide value for money.” Pg. 62.

⁵ Tan Wen Hui, “Public anger mounts over SMRT Train breakdowns in Singapore”, Dec 17 2011, <http://digitaljournal.com/article/316245> (cited Dec 5 2013)

⁶ Shibani Mahtani and Chun Han Wong, “Singapore Subway Breakdowns Raise Ire” Dec 16 2011, *Wall Street Journal, South East Asia*, <http://blogs.wsj.com/searealtime/2011/12/16/singapore-subway-breakdowns-raise-ire/> (cited Dec 5 2013)

⁷ Lew Yii Der and Ang Chor Ing, “The LTA Journey 15 Years On”, 2010, http://ltaacademy.gov.sg/doc/J10Nov-p49LewAng_LTA15YearsOn.pdf (cited Dec 5 2013)

(A) Injecting More Funding to Create More Slack

The earlier decisions on building transport infrastructure were characterised by a strict adherence to fiscal prudence. Large investments, such as new MRT lines, have always been weighed with caution. Prior to 2010, LTA would carry out an economic evaluation of each rail investment by comparing the expected stream of transport benefits against the costs of each specific line, over an appraisal period. Before a rail line was tendered out, the LTA also evaluated whether it would be financially sustainable for both the operator and government.⁸ Commuter fares and other revenues would have to cover the operating cost of the line, and generate sufficient enough reserves to replace the historical operating assets in due course. This policy was branded as ‘prudent but conservative’, in the 1996 White Paper, as it allowed only self-sustaining and commercially viable MRT lines to be built.

The government also intervened to stop or reroute bus routes that ran along new train routes, to avoid duplication of resources deemed wasteful. This rationalisation of bus routes was intended to channel commuters to the MRT system to ensure its financial viability. This however sometimes raised commuters’ ire.⁹

This cautious approach to investment proved excessively conservative. Minister for Transport Lui Tuck Yew explained in 2013 that “[w]e should have invested more in building new lines and buying new trains in the early years of the last decade [...] Because we were too prudent and conservative in public transport infrastructure investment during the early years of the last decade, we now find ourselves doing a lot of catching up.”¹⁰

To rectify the problem of under-supply, the government loosened up the strictures on infrastructure spending. In 2010, a new framework for rail financing¹¹ was announced. One of the major changes was an amendment to take a **network approach, rather than a line-by-line approach** for conducting the financial viability of a new line. This change was intended to speed up the building of lines that would otherwise fall short of being financially viable on their own. The LTA justified this move by explaining that the new lines were to be built underground, which would entail high construction costs. These lines were also expected to serve the less mature corridors with lower ridership, and would therefore be less profitable initially than existing lines.¹² Changing the financing framework thus allowed the LTA to be even more aggressive in building new lines than before.

Similarly for buses, important and previously unthinkable policy shifts were made to rapidly enhance capacity. To address commuters’ growing dissatisfaction with bus overcrowding and unsatisfactory frequencies, the LTA launched the Bus Service Enhancement Programme (BSEP)

⁸ Centre for Liveable Cities, *Transport: Overcoming Constraints, Sustaining Mobility*, pg 13, 14

⁹ Goh Chin Lian and Royston Sim “The return of bus services along MRT lines” *The Straits Times*, March 15 2012.

¹⁰ Lui Tuck Yew, “Speech by Lui Tuck Yew, At Parliamentary Debate on the Population White Paper”, Feb 5 2013, http://www.news.gov.sg/public/sgpc/en/media_releases/agencies/pmo/speech/S-20130205-4.html (cited Nov 20 2013)

¹¹ LTA News Release “LTA appoints SBS Transit Limited to Operate Downtown Line Under New Rail Financing Framework” Aug 26 2011, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=659z82u5jocnrr4j4it759812yw2etknbsr66ucn2jd67avxjm> (accessed Nov 22 2013)

¹² CLC & LTA, “Transport: Overcoming Constraints, Sustaining Mobility” *Singapore Urban Systems Studies Booklet Series*, 2013, pg 14; LTA press release, Annex, source: <http://app.lta.gov.sg/data/apps/news/press/2011/SBS%20Transit%20Limited%20to%20operate%20Downtown%20Line.pdf>

in 2012¹³. The BSEP would grow the bus fleet by 800 buses, a 20% expansion, and would improve bus service and network connectivity over five years (2012-2016). Out of the 800 buses, the government would fund 550, as well as the operating costs and drivers' salaries associated with running these buses. In total, this was estimated to cost over \$1.1 billion¹⁴. The rest of the 250 buses were to be funded by the PTOs. The BSEP was a significant departure from the government's earlier stance not to subsidise public transport operations and only fund bus infrastructure.¹⁵

Furthermore, as part of the 2012 BSEP program, eight new routes running parallel to existing MRT lines were announced, to help ease the MRT crunch and provide commuters with more choice¹⁶. Even though the LTA had relaxed their position on rationalisation as early as 2008, only three parallel bus routes were introduced prior to 2012. The BSEP proposal thus marked a decisive shift in the earlier stance that bus routes overlapping with MRT routes should be 'rationalised'. It also partially reversed the long-established principle of the hub-and-spoke system channeling commuters to the MRT for long journeys.

Reactions and Impacts

The LTA's steps to inject more public funding into transport services beyond infrastructure building attracted its fair share of public criticisms. For instance, the announcement of a \$1.1 billion BSEP initiative was met with questions from as both the public and MPs as to why tax dollars were being used to subsidise private and largely profitable companies¹⁷. In response, Minister for Finance Tharman Shanmugaratnam clarified that the PTOs' bus operations were actually running at a deficit,¹⁸ thus forcing them to ramp up capacity alone would not be financially viable for them, and could not be justified under the regulatory framework¹⁹. To ramp up capacity without government funding, commuters would thus have to pay 15 cents more per journey, which the government deemed untenable. The Minister for Finance further assured that any profits from the \$1.1 billion injection would be returned to government coffers, rather than the PTOs.²⁰

This experience, comparable to other instances where additional government funding was proffered to ease public transport woes²¹, signals that similar future moves would likely be contentious, as long as the PTOs are privately owned and profitable.

¹³ LTA, *Land Transport Master Plan 2013*, Pg. 28-29, <http://www.lta.gov.sg/content/dam/ltaweb/corp/PublicationsResearch/files/ReportNewsletter/LTMP2013Report.pdf>

¹⁴ Christopher Tan, "Bus plan budget may go beyond \$1.1b", *Straits Times*, Feb 13 2013

¹⁵ Gopinath Menon and Loh Chow Kuang

¹⁶ Goh Chin Lian and Royston Sim

¹⁷ Goh Chin Lian, "Public bus operators 'should plough back savings'", *The Straits Times*, Feb 29 2012

¹⁸ In 2011, SBS Transit incurred an operating loss of \$6 million on its bus business, but made \$36.7 million overall, via revenues from its other businesses (e.g rail and advertising). SMRT made \$119.9 million in FY2012 (April 2011-March 2012), even though its bus operations incurred an operating loss of \$11.6 million. Source: http://www.sbstransit.com.sg/download/SBST_fullyear2011.pdf and <http://www.smrt.com.sg/Portals/0/PDFs/About%20SMRT/Newsroom/2012/04%2030%202012.pdf> (Cited Dec 10 2013)

¹⁹ Sumita Sreedharan, "Fares would rise if bus operators bore cost of fleet expansion: Tharman" *Today*, March 2, 2012

²⁰ Goh Chin Lian, "Budget 2012: \$1.1 Billion Bus Services Enhancement Fund" *The Straits Times*, Marc 2 2012.

²¹ A recent move by the Government to pay for pre-morning peak free travel drew similar criticisms from observers, who questioned why taxpayers are paying for operators' capacity shortfall. Source: Christopher Tan, "A Step Closer on the Road to Nationalisation", *Straits Times*, April 24 2013, <http://www.straitstimes.com/the-big-story/case-you-missed-it/story/step-closer-road-nationalisation-20130424> (cited Dec 6 2013)

Taking a more aggressive approach to building up rail infrastructure could also translate into challenges down-stream if projections of demand prove overinflated. In the past, a mismatch between demand and supply of infrastructure led to large losses by SBS Transit in running the North East line (NEL), and a few stations were left fully constructed yet unused for a long time. This in turn created public dismay over wasteful government expenditure as well as intense pressure to open up these stations even when doing so could not be justified in terms of ridership and operation costs²². Whether the LTA has in place sufficient internal mechanisms to guard against a repeat of the NEL experience, and ensure better matching of demand and supply for public transport in the longer term, remains to be seen.

(B) Shouldering More Responsibility, Imposing More Control

Transport policy makers in Singapore had always maintained that having the state involved in direct public transport provision would result in inefficient and ineffective behavior, such as the subsidisation or operation of loss-making services. They saw the need for a ‘managed competition’ approach where private operators would exercise market-based discipline, motivated by profit, when running public transport services in a contestable environment²³.

In response to the deteriorating standard of public transport provision, which came to a head during the 2011 train breakdowns, the government took steps shift the balance towards tightening control over the PTOs.

First, the LTA adopted a more interventionist approach to financing improvements and growth of services. Under the 2010 revision of the rail-financing framework mentioned earlier, the government would own all operating assets and associated risks for major capital—a significant change from previously where the operators had to pay for the historical cost of replacement assets. Under the new framework, LTA would collect a licence charge from the operator in exchange for the right to run and generate returns from the revenue service. This change enabled the LTA to directly make the decisions on replacing existing trains and operating assets, and on investing in new trains and operating assets—which were decisions previously made by the PTOs. The LTA thus gained more ability to directly respond to changes in demand and public expectations.

As for buses, the LTA announced in the 2008 LTMP that it would take on the role of centralised bus planner. Prior to this, bus operators had been free to plan bus networks in the areas that have been assigned to them by the government. Each company was responsible for planning and delivering a comprehensive network of bus services to meet the service standards set by the regulator, the PTC²⁴. By taking over centralised control over bus route planning, the LTA sought to plan the public transport network in a more holistic manner, and ensure the better integration of buses into the overall public transport system²⁵. This move also suggested that the earlier, more arms-length approach had failed to achieve a sufficient integration and coordination of services between rail and bus services, as well as across geographical areas.

²² Yuen Chung Kwong, “North East Line”, *The Online Citizen*, Aug 28, 2013, <http://www.theonlinecitizen.com/2013/01/north-east-line/> (cited Dec 10, 2013)

²³ LTA, 1996 White Paper: A World Class Land Transport System.

²⁴ Gopinath Menon and Loh Chow Kuang “Lessons from Bus Operations”, 2006, <http://www.ptc.gov.sg/files/LessonsfromBusOperationsREV5.pdf> (cited Nov 29 2013)

²⁵ LTA, Land Transport Master Plan 2008, <http://www.lta.gov.sg/content/dam/ltaweb/corp/PublicationsResearch/files/ReportNewsletter/LTMP-Report.pdf> (cited Nov 14 2013)

Greater control over the public transport providers also came in the form of more and stricter service standards and higher penalties for non-compliance. After the 2011 breakdowns, a Committee of Inquiry (COI) was appointed to study the reasons for lapses in both train service and emergency incident management²⁶. The COI report pinned the bulk of the blame on SMRT, describing the operator's work procedures and control mechanisms of the maintenance branches as "grossly inadequate".²⁷ At the same time the report stressed the LTA's culpability as the regulator of the rail operators, and highlighted the 'inadequate clarity' of the public transport operators and the LTA's roles in dealing with incidents. The LTA and operators were advised to jointly develop an integrated, national-level land transport emergency plan that clearly laid out processes, roles and responsibilities²⁸

The Transport Ministry accepted the inquiry's recommendations. Since then, LTA has made moves to remedy the identified flaws²⁹. A formal process was formulated to provide LTA with **greater oversight of the operators' maintenance regime**. Operators were now required to track more indicators (e.g. Mean Kilometres Between Failures resulting in train withdrawals), and report these more frequently to the LTA, together with weekly listing of faults detected as well as severity classification, rectification plan and timelines. The existing Codes of Practices were also enhanced to impose more prescriptive maintenance requirements on operators, as compared to guidelines previously³⁰.

For **incident management**, LTA and the public transport operators jointly developed a framework for exercises to practise and test operators' ability to handle disruptions. This included regular deployment exercises and tests of critical response mechanism, such as the provision of bus bridging services. Since September 2012, LTA has also been conducting surprise checks at MRT stations to assess the readiness of the rail transit station operators' frontline staff to deal with extended train service disruptions.³¹ Both sides have established a common incident management framework³², with a command structure designed to handle large-scale disruptions.

²⁶ SG Press Centre, "Release of Report of COI into 15 and 17 December 2011 MRT disruptions", July 4 2013, http://www.news.gov.sg/public/sgpc/en/media_releases/agencies/mot/press_release/P-20120704-2.html?AuthKey=d381beda-f474-eb4a-8a11-ac99a9b806f6 (cited Dec 3 2013)

²⁷ Christopher Tan, "MRT breakdown COI: Release of Report", *The Straits Times*, July 5 2012, <http://ifonlysingaporeans.blogspot.sg/2012/07/mrt-breakdown-coi-release-of-report.html#sthash.1RyvW8A.dpuf> (cited Dec 10 2013)

²⁸ Goh Chin Lian and Christopher Tan, "Where LTA fell short", *The Straits Times*, 5 Jul 2012

²⁹ LTA press release, "LTA tightens rail regulatory framework to enhance rail service reliability", Jan 10 2013, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=358e8d0e-dd6f-404d-b673-f4e81f030760> (cited Dec 10 2013)

³⁰ LTA Press Release, "Joint Team on Track to Meet COI Recommendations to Improve Rail Reliability", 14 May 2013, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=562f1239-125e-4bdb-8067-b740fcb385e7> (cited Dec 10 2013)

³¹ "LTA probes SMRT's readiness amid train service breakdown", *Singapore Business Review*, Nov 23 2013, <http://sbr.com.sg/transport-logistics/news/lta-probes-smrts-readiness-amid-train-service-breakdown> (cited Dec 5 2013)

³² The framework included, among others, requirements such as information dissemination, provision of alternative transport services, and guidelines on station manning requirements and customer service teams. For instance, the procedure for transporting stranded passengers has improved to include free travel on SMRT's and SBST's regular bus services, in addition to bus bridging services, in cases of disruptions. Provisions have also been made to erect signage, pull-down screens and LCD displays to guide commuters to buses, as well as provide information on breakdowns when such incidences occur. Source: Fann Sim, "SMRT, SBS Transit to provide free bus service during extended breakdowns" *Yahoo! News Singapore*, Feb 21 2012, <http://sg.news.yahoo.com/blogs/singaporescene/smrt-sbs-transit-free-bsmrt-sbs-transit-free-092047554.html>, and LTA Press Room, "LTA and SMRT improve train maintenance and incident management", 14 Dec 2012, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=fdc266a2-9528-4c6b-84b6-ffef372a3114>

LTA also tightened standards on train disruptions and indicated that **penalties** for breakdowns would likely to rise beyond the current cap of \$1 million per incident. Instead, fines could be pegged to a percentage of the operator's annual revenue for the affected line.³³

Similarly for the bus industry, the Public Transport Council (PTC) progressively tightened Quality of Service (QoS) standards for buses, first introduced in 1994, to ensure that the service provided by bus operators was of high quality³⁴. To give the QoS additional teeth, the PTC introduced a penalty framework in 2007, which was revised to impose heavier penalties³⁵ in 2013. This upward revision was imposed with the justification that additional resources were being pumped into the bus industry via the BSEP, which would enable operators to deliver even high service standards.³⁶

As for taxis, together with the liberalisation of the taxi market in 2003, the LTA imposed Quality of Service standards for taxis, which stipulated performance standards in various areas such as call bookings, waiting times, accident rates and complaints.³⁷ However, as the LTA continued to receive persistent feedback about the inadequate availability of taxis, it announced measures to raise the quality of service standards for call booking in 2012³⁸ as well as new taxi availability indicators and standards to compel taxi operators to put taxis on the road throughout the day³⁹.

Reactions and Impacts

As the Singapore government tightened control over, and increased public funding for, private operators, critics on all fronts questioned the move. Some queried whether the greater controls imposed by the government would reduce the companies' flexibility and ability to optimise operations in response to market forces⁴⁰, while others argued for the other extreme of nationalising public transport.

In July 2011, Gerald Giam of the Workers' Party, Singapore's leading opposition party, published an article arguing that a not-for-profit "National Transport Corporation" (NTC) should be set up to run rail and bus services, and could achieve better outcomes than the current profit-oriented PTOs who function as virtual monopolies over their respective service areas. He drew attention to profits earned by SMRT and SBS Transit, suggesting that this proved the PTOs had few incentives to raise service standards and keep prices low, and were instead earning monopoly rents at the expense of commuters⁴¹. (See **Annex B** for full article)

³³ For example, financial penalties would be imposed if train disruptions lasting more than 30 minutes occur more than once in any four-week period. Source: LTA Press Room, "LTA tightens rail regulatory framework to enhance rail service reliability"

³⁴ PTC, <http://www.ptc.gov.sg/regulation/qualityOfService.htm>

³⁵ Penalties today range from \$2,000 per day per bus service to \$100,000 per month per standard.

³⁶ PTC, "The PTC revises penalty quantum for bus quality of service (QOS) standards to ensure better service levels" March 4 2013.

³⁷ Ilsa Sharp, *The Journey-Singapore's Land Transport Story*, 2005, Pg 61

³⁸ Higher standards for call bookings include quicker and higher answering rates, as well as more successful matching of requests and arrival of taxis within 10minutes. Taxis are required to undergo inspection every 6 months, and the required passing rate for first inspection to be raised from 95% to 98%. Source: LTA New Release, "Tighter measures to improve quality of taxi service", Mar 7 2012.

³⁹ LTA Press Room "Taxi availability for commuters to be improved" Nov 23, 2012, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=08880ab0-4d14-4d2a-8d37-5b8af013331f> (cited Dec 03, 2013)

⁴⁰ Lediat Tan, "Why Spend Public Funds for Private Use", *The New Paper*, March 03 2012, <http://www.asiaone.com/print/News/Latest%2BNews/Singapore/Story/A1Story20120301-331039.html> (cited Nov 11, 2013)

⁴¹ Gerald Giam, "Overhauling Singapore's public transport model", *Workers' Party Press Release*, July 19 2011, <http://wp.sg/2011/07/overhauling-singapore's-public-transport-model/> (cited Dec 6 2013)

Minister of State for Transport, Josephine Teo, countered that Singapore's model was sound, citing comparative studies which showed that bus and rail operations in Singapore were among the most efficient in the world. She attributed this efficiency to the combination of commercial motivations and government regulation, arguing that private operators had a strong incentive to improve productivity, because of the contestability built into the market—something a nationalised model would lack.

To address the fear that PTOs were extracting monopoly rents from commuters, the Minister of State for Transport highlighted that while the operators were the sole providers of the rail lines or bus services licensed to them, the control of service standards, continuity of their licences and fare pricing were in fact regulated by the PTC. Should PTOs earn an excessive return, the PTC had the discretion to deny any fare increase. (See **Annex C** for full response)

When the December 2011 breakdowns revealed that the government's regulatory control was not quite water-tight, its chosen remedy was not to abandon the current model of partially government-funded, privately-operated public transport, which have seen successes in other cities (e.g. London, Stockholm, Copenhagen)⁴². Rather, the LTA chose to tighten regulatory control over PTOs, as described earlier.

However, even if the reformed system proves more effective, the LTA may nevertheless find it difficult to overcome public scepticism of the profit-driven PTOs. Elsewhere in the world, negative reactions against privatisation efforts were common occurrences, fueled by price increases, job reductions in the privatised industries and high profits of firms. However, according to a World Bank report published in 2004⁴³, such adjustments are inevitable and necessary in order to bring about improvements without additional government funding and to weed out inefficiencies. Allowing providers to turn a healthy profit was also seen as a necessary incentive for investment, innovation, efficiency and productive growth.

Furthermore, even when privatisation efforts have been shown to improve the distribution and range of services across the population, public perception of privatisation often still remained negative. This mismatch could be because the gains, even when extended to a large number of consumers, were too modest to generate a strong impression of progress. The public's impatience to see immediate results from privatisation efforts, coupled with the over-optimistic promises from political leaders, might also have led to unrealistic expectations and disappointment⁴⁴.

In Singapore, transport officials had taken pains to highlight the low public transport fares, attributing this to discipline imposed by a privatised transport sector⁴⁵. Judging from the persistent calls for nationalisation though, this may not be sufficient to convince a disgruntled public.

⁴² Christopher Tan, "The \$1.1 billion bus question" *Straits Times*, Feb 26 2012.

⁴³ Ioannis N. Kessides, "Reforming Infrastructure-Privatization, Regulation, and Competition", *World Bank Policy Research Report*, 2004

⁴⁴ *Ibid*, pg 57-58

⁴⁵ "Why doesn't the Government nationalise the public transport operators to keep fares affordable?" Gov.sg, <http://www.gov.sg/government/web/content/govsg/classic/factually/factually-19102012-WhydoesnttheGovernmentnationalisethepublictransportoperatorstokeepfaresaffordable> (cited Dec 11 2013)

(C) Encouraging More Competition

Studies indicate that efficiency gains from privatisation increase significantly when coupled with competition⁴⁶. However, a laissez faire approach to competition would also lead to inadequate integration between various transport services, wasteful duplication of services, and cherry-picking of select routes leading to poor coverage—as evident in Singapore’s experiences with unregulated competition between bus companies in the 1950s. At the same time, as is the case for most infrastructure services, the public transport industry tends towards a natural monopoly⁴⁷, where the high costs of infrastructure and economies of scale in service provision represent significant barriers to entry. Shifting the industry towards a more competitive one without compromising economic efficiency and quality service is thus inherently challenging.

A way to ameliorate the potential exploitative tendencies of monopolies is through competition *for* the market, even if one cannot have competition *in* the market. When many firms submit competitive bids to become the supplier of a natural monopoly activity, the resulting price would not reflect exploitive market power⁴⁸. This was the approach the LTA took (i.e. to increase contestability rather than competition *in* the market⁴⁹) in order to encourage greater efficiency and service improvements.

By shouldering a larger portion of financing for public transport improvements, the government also sought to lower barriers of entry into the market as this allowed new private operators to enter the market with lower start-up costs. By taking a more active role in financing and controlling the PTOs, the LTA thus placed itself in a better position to ensure more contestability, a commitment in the 2008 LTMP.

For instance, by owning operating assets in rail, LTA lowered the upfront costs that new operators would need to incur to order to enter the rail industry. The lower up-front costs also allowed LTA to shorten future Rapid Transit System (RTS) operating licences from 30-40 years, to 15-19 years, which they did in 2010. As the operator would face the prospect of competition at the end of its licence term, shorter terms were seen as a way of encouraging more competition. The change has the added advantage of allowing LTA to refresh licence conditions at the end of each term, effectively further strengthening its control over the PTOs. Similarly for buses, LTA assumed a greater role in the direct planning, development and funding of new bus depots and bus parking facilities⁵⁰, which would be leased to bus operators at a nominal fee, to lower the barriers of entry for new operators.

LTA also sought to inject competition into the market in 2013, by opening up tenders for nine ‘City Direct’⁵¹ routes to private bus operators, not just public transport operators Comfort Delgro

⁴⁶ Ioannis N. Kessides, pg. 56

⁴⁷ OECD

⁴⁸ Ioannis N. Kessides citing Demstz, 1968

⁴⁹ Quote from LTMP 2008 report, pg. 39, “We are not looking at competition in the market where the bus operators compete for the same market share. This will destroy integration and lead to wasteful duplication. Instead, we are looking at competition for the market where there is competitive tendering for the right to operate a package of bus services planned by LTA”

⁵⁰ LTA Press Release “New Bus Depot to Support Bus Fleet Expansion Under BSEP”, April 23 2013, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=a26baf3a-76b4-4cd5-8ee5-1dc592d9cb1d> (cited Nov 29 2013)

⁵¹ City Direct services make two one-way trips on weekday mornings from the respective housing estates towards the CBD. Similarly, two one-way trips will take commuters back home in the evenings. Source: LTA Press Room, “Nine New City Direct Bus Services to Improve Connectivity from January 2014”, June 13 2013, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=7a54895f-b34e-47bc-906c-60afa12bb5ca> (cited Dec 5 2013)

Bus Ltd and SMRT⁵². While these represented fairly limited steps towards loosening the stranglehold of the current duopoly, the government had indicated that it would gradually open up more basic bus services for greater contestability⁵³, possibly through a ‘contracts model’ where several operators would bid for routes tendered out by the Government⁵⁴. Similar models have been used in London, Stockholm, Copenhagen, Seoul and Perth.

Reactions and Impacts

LTA’s efforts to shorten rail operation leases to boost contestability have been met with some scepticism. Some critics argued that any competition for rail operation licenses would be extremely limited anyway, especially given the limited pool of engineering talent and resources available. Furthermore, the shorter licence periods could inadvertently strip operators of the motivation to think long-term,⁵⁵ which in turn places additional burden on the LTA to compel operators to maintain the operating assets.

For buses, one big challenge the LTA faced was in attracting a sufficiently large pool of takers beyond the two PTOs. In its efforts to reach out to private companies to run selected, fixed bus routes, the private companies displayed reticence on their end, citing the uncertainty of fare revenue and overly stringent pre-requisites⁵⁶. Of the nine City Direct services put up for tender in mid 2013, three were not awarded due to too few valid bids.

Furthermore, LTA faced pressure to introduce competition within the market itself, not just at the contract tendering stage. To many, competition is equated with more transport choices in the market. For instance, in 2004, when the government decided to have SBS-Transit operate the NEL rather than SMRT, Pasir Ris-Punggol GRC MP Charles Chong remarked, “when they said ‘competition’, the principle conjured up in my mind was it would be more efficient, and would help raise standards and lower prices. But now, if you live in the northeast, your choice is the North-East Line. What sort of competition are you talking about?”⁵⁷

Similarly, Hazel Poa of the National Solidarity Party, an opposition party stated that “[t]heoretically, we have two companies ‘competing’ against each other in bus and MRT services. However, since there is no duplication in their area of service, commuters have no real alternatives. Thus we effectively have two monopolies.”⁵⁸ (See **Annex D** for full statement) LTA’s efforts to introduce contestability at the tendering stage may thus prove unsatisfactory to those clamoring for real alternatives as a concrete demonstration of actual competition.

⁵² “LTA News Room, “Two More New Routes by September 2013” Jun 27 2013, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=9c300309-204f-4b97-b4c3-00354873807b> (cited Dec 5 2013)

⁵³ MOT website, http://app.mot.gov.sg/Land_Transport/Making_Public_Transport_a_Choice_Mode/Greater_Competition_in_Bus_and_Rail_Industries.aspx (cited Dec 10 2013)

⁵⁴ Elizabeth Soh “Bus, train routes to be open to competition soon: Lui Tuck Yew”, *Yahoo!News Singapore*, March 12, 2013, <http://sg.news.yahoo.com/-1-1-billion-bus-programme-to-be-completed-by-2014-120717386.html> (cited Dec 20 2013)

⁵⁵ Joan Ng, “Deregulated bus services might solve public transport woes”, *The Edge*, Nov 13 2012, <http://www.theedgesingapore.com/blog-heads/joan-ng/41085-joan-ng-deregulated-bus-services-might-solve-public-transport-woes.html?start=1>

⁵⁶ Christopher Tan, “Bus plan budget may go beyond \$1.1b”, *Straits Times*, Feb 13 2013, <http://www.straitstimes.com/the-big-story/budget-2013/story/bus-plan-budget-may-go-beyond-11b-20130213> (cited Dec 10 2013)

⁵⁷ Goh Chin Lian, Karamjit Kaur, “Should SMRT run North-East Line?” *The Straits Times*, 30 Oct 2003

⁵⁸ “More Competition is needed in public transport: NSP”, *Yahoo! News Singapore*, 27 Jul 2011, <http://sg.news.yahoo.com/blogs/singaporescene/more-competition-needed-public-transport-nsp-140132846.html> (cited Dec 11 2013)

Serving Commuters

“[T]here is more to transport than just moving people and goods efficiently and sustainably. If designed well and thoughtfully, our transport system can be a key enabler – uplifting to those who need help getting around, inspiring to those who wish for a better environment and society, safer for those who are most vulnerable”

Lui Tuck Yew, Minister for Transport, 2013⁵⁹

The 1996 Transport White Paper placed a strong emphasis on strategies to improve the performance of the system, as measured in terms of road speeds, comprehensiveness of road and public transport infrastructure and financing viability. In contrast, the 2008 LTMP signaled a shift towards a more ‘people-centred’ approach where old strategies were reviewed in light of new challenges to meet rising expectations of a more diverse population.⁶⁰

Similarly, this priority was echoed in the 2013 LTMP, which boldly proclaimed that “It is important to [LTA] that you, the Commuter, are at the heart of our system and that the system is able to meet your needs.”⁶¹

(A) Emphasis on Public Transport and Alternative Modes

To achieve a more ‘people-centred’ approach, the 2008 LTMP placed more emphasis on public transport, promising to transform it into the primary mode of transport of the majority. According to latest targets set by the LTA, this mode share is set to increase from 63% in 2012⁶² to 70% by 2020, and 75% by 2030. In order to achieve this target, LTA introduced various initiatives in both the 2008 and 2013 LTMP to increase overall capacity of the public transport network. This meant the development of more rail lines, adding bus lanes and running additional bus services.

Beyond expanding physical capacity of the network, added emphasis was also placed on **improving experiences and changing behaviours** of public transport users, in order to persuade more to make the switch away from private transport.

Improving quality of service and the commuter experience

Besides imposing stricter service quality standards on public transport providers, LTA also embarked on infrastructure projects to smoothen the travelling experience of commuters. For instance, in 2013, it rolled out a \$330 million ‘Walk2Ride’ programme that would create an extensive network of sheltered walkways to connect all key developments within 400m of MRT stations, or 200m of bus interchanges, LRT stations and high-traffic bus stops. Progressive efforts have also been made to push out more and better travel information (e.g. bus arrival times) to commuters through information panels at stops, kiosks, smart phones and other portals. (Please see **Annex E** for details of the recommended initiatives in the 2013LTMP)

⁵⁹ Speech by Lui Tuck Yew, at LTA-UITP Singapore International Transport Congress & Exhibition, 07 October 2013

⁶⁰ Lui Tuck Yew, “Speech by Mr Lui Tuck Yew, Minister for Transport, on enhancing public transport, at the Committee of Supply debate” March 12 2013, <http://www.lta.gov.sg/content/dam/ltaweb/corp/AboutUs/files/COS%202013%20Speech%201%20-%20Public%20Transport%20%28Speech%29.pdf> (cited Dec 1 2013)

⁶¹ LTMP 2013, pg. 2

⁶² LTA, “Household Interview Travel survey 2012: Public Transport Mode Share Rises to 63%”, Oct 7 2012: <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=1b6b1e1e-f727-43bb-8688-f589056ad1c4>

Changing behaviours and mindsets

In its efforts to ease peak-hour congestion on the MRT, LTA has also taken a more ‘commuter-centric’ approach to influence commuter behavior. On 24 June 2013, LTA embarked on a one-year trial to provide free MRT travel for commuters who completed their journey before 7.45am on weekdays at 16 designated MRT stations in the city area. Commuters who exited at these stations between 7.45am and 8am were given a discount of up to 50 cents off their train fare.⁶³ Decision makers projected that free rides could move another 10 to 20 per cent of commuters away from the peak period, which translates to about 10,000 to 20,000 train users⁶⁴. The initiative was combined with a two year ‘travel smart’ trial, where LTA would help organisations facilitate their employees to travel pre-peak.

Since 2009, LTA has also embarked on campaigns, enlisting the help of local celebrities⁶⁵, students and members of public⁶⁶, to persuade commuters to adopt more considerate behaviours⁶⁷ that would ease the discomforts of public transport travel.

Messaging to the general public about the virtues of public transport vis-à-vis private cars has also shifted fairly substantially over the years. Previously, in the 1996 White Paper and even the 2008 LTMP, the articulated objective of strategies to curb car ownership and usage was to keep traffic flowing smoothly on the roads. The clear ‘enemy’ was congestion that needed to be managed. In contrast, the 2013 LTMP attempted to achieve a ‘mindset shift’ away from car usage by highlighting the **social costs** of driving. Both the final report, as well as speeches from transport officials⁶⁸ highlight that “each motorist imposes a cost upon other motorists on society”, and emphasised a global trend towards cutting car dependency. In comparison, public transport has been pitched as the more environmentally-responsible, resource-efficient option—an angle that has been picked up by operator SMRT in its “Let’s clear the air’ and “Go Green with SMRT” campaigns and advertising.

Accompanying this shift in the 2013 LTMP is the move to “reclaim public space” by making different areas and streets car-free/ car-less. For instance, the Kallang Bugis district has been designated as a pilot residential district for car-free initiatives. LTA and URA had also implemented a programme to close off select streets (e.g. Club Street, Haji Lane) on weekends to create lively, car-free pedestrianised zones.

Collectively, these moves represent a softer attempt to induce behavioral changes, beyond the approach of using quota and taxation mechanisms (COE, ERP) to control individual car-ownership, which are unpopular even if they may be effective.

⁶³ LTA News Release, “Travel Early, Travel Free on the MRT”, April 16 2013, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=c3983784-2949-4f8d-9be7-d095e6663632> (cited Dec 5 2013)

⁶⁴ Jermyn Chow, The Straits Times, “Free train rides to city before 7.45am” 17 Apr 2013, <http://ride.asiaone.com/news/general/story/free-travel-trains-745am-june-24> (cited Dec 5 2013)

⁶⁵ LTA press room, “Love Your Ride!”, Sept 5 2010, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=azpg3o58mt4vixzo1z345a2bj102vxp9mp5zu9m3o0ao078qmx> (cited Nov 16 2013)

⁶⁶ LTA, Land Transport Master Plan 2013, Pg. 36

⁶⁷ These included moving towards the centre of the carriage or back of the bus to ease crowding, or queuing in an orderly manner to board the vehicles

⁶⁸ In Minister for Transport Lui Tuck Yew’s 7 Oct 2013 speech, he repeatedly highlighted the problems of having a car-reliant transport system, such as increased pollution and carbon emissions, as well as the loss of land for other, more desirable spaces like parks and housing. http://www.news.gov.sg/public/sgpc/en/media_releases/agencies/mot/speech/S-20131007-1.html (cited Nov 10 2013)

Reactions and Impacts

Local transport experts generally applauded LTA's increased focus on public transport, and particularly on improving the experiential aspect of public transport, as this was seen as a critical move to shift commuters from cars to public transport. Transport economist Anthony Chin praised the LTMP's measures as "steps in the right direction"⁶⁹, highlighting the importance of improving the first and last kilometre, wait and in-vehicle time, which were key strategies in the 2013 LTMP.

At the same time, critics have argued that the continued emphasis on high traffic speeds--another of the LTA's objectives-- posed a fundamental threat to this goal. Transport and urban planning expert Paul Barter contended that "[t]he insistence on maintaining high traffic speeds as a goal[...]threatens to create a vicious cycle, whereby the high costs of purchasing a car oblige the authorities to keep delivering on high traffic speeds, which in turn is only possible by limiting the number of cars, and making them expensive to buy." High speeds on roads, he argued, in turn create an environment that is more hostile for walking and cycling, and contributes to the persistent perception that public transport is still a slower, second best option for those who can afford a car.⁷⁰

While the 2013 LTMP attempted to frame a non-car owning lifestyle as more responsible and more attractive, there have been calls for even more drastic, draconian measures to reduce the desirability of car use. For instance, transport expert Gopal Menon suggested that advertising that show cars as desirable lifestyle items should be curtailed.⁷¹ On the other hand, others called for a move away from 'demonising cars', given that fast-emerging technologies like autonomous vehicles may render private cars more efficient than public transport⁷².

A 2012 research study on Singaporean commuters⁷³ revealed that the younger commuters were significantly more inclined, compared with older commuters, to pick cars as their primary mode of transport than the older ones, and also exhibited little interest in cutting back on car use to reduce their carbon footprint⁷⁴. This suggests that the LTA may be facing an uphill battle to wean Singaporeans off cars.

Nevertheless, studies of non-regulatory efforts in the UK to bring about behavioural changes in car use via infrastructure improvements, education and information provision offer hope. These showed that while infrastructure improvements alone may not be sufficient to change behaviour, they are an effective and necessary component of a package of interventions. Similarly, while information provision, or marketing and promotion efforts in isolation had limited effect, large-scale education campaigns together with other measures such as fiscal interventions and improvements to infrastructure, could effectively change behavior⁷⁵. These findings suggest that

⁶⁹ Anthony Chin, "Levelling up public transport service quality", *The Straits Times*, Nov 7, 2013.

⁷⁰ Paul A. Barter, "Singapore's Mobility Model: Time for an Update?", *Megacity Mobility Culture*,

⁷¹ Sumita d/o Sreedharan, "Govt needs to convince S'poreans that public transport is convenient", *Today Online* 10 Oct 13

⁷² Christopher Lee, "Transport Plan needs more than just hardware; Masterplan must get to the crux of what commuters want—service quality", *The Straits Times*, Oct 8 2013.

⁷³ Woo Sian Boon, "Mindset shift needed for cars not to remain preferred ride: NUS researchers" *Today Online*, 8 Oct 13, <http://www.todayonline.com/singapore/mindset-shift-needed-cars-not-remain-preferred-ride-nus-researchers> (cited Dec 12 2013)

⁷⁴ 37 percent of young commuters (ages 16-24) preferred cars as their transportation mode during peak hours., which is significantly higher compared to 26 per cent of commuters in the age group of 35 to 54, and 18 per cent aged 55.

⁷⁵ House of Lords-Science and Technology Select Committee, "Behaviour Change", 2nd Report of Session 2010-12, pg. 59-66, July 11 2011 <http://www.publications.parliament.uk/pa/ld201012/ldselect/ldsctech/179/179.pdf>

while each individual component of the LTA's efforts to shift commuters toward public transport are unlikely to prove a silver bullet, collectively, they might stand a good chance of being effective.

(B) Access to all: Barrier-Free and Affordable

The LTA's 'people-centred' approach included a commitment to "ensure that everyone—the young, the old, the disabled, and the needy—has access to it"⁷⁶. To do so, LTA required all new transport infrastructure to be barrier free and implemented efforts to retrofit existing infrastructure⁷⁷.

In addition, concerns of social equity and affordability rose closer to the forefront of policy-making. While neither 2008 nor 2013 LTMP contained any specific proposal to improve the affordability of public transport, the objective of keeping fares affordable has always been pressing. One of the PTC's main responsibilities has been to "maintain affordable bus and train fares for the public"⁷⁸. To this end, the PTC developed and tracked a fare affordability indicator⁷⁹ based on the percentage of household expenditure on public transport over monthly income of a representative household. During past fare reviews, the PTC would take consider the indicator's performance when deciding on any fare adjustments. The PTC also had discretion to lower fares, as demonstrated during the economic downturn in 2009, when the PTC and operators implemented a fare reduction package to lower fares⁸⁰.

While the PTC oversaw overall affordability of fares, it did not offer targeted rebates or concessions for the low-income groups as yet. Rather, such groups received general assistance from other government schemes and public transport vouchers from both PTOs and the Public Transport Fund⁸¹. The latter was set up in 2006 with contributions from the government and a small voluntary contribution by the PTOs, to provide transitional relief for the poor to better adjust to fare increases.⁸²

Promotional and fare assistance schemes such as concessions for students, senior citizens and national servicemen were also not dictated by the PTC or the LTA. These were done on the operators' initiative, based on their own commercial and social considerations, and thus were born solely by them without any government support⁸³.

⁷⁶ LTA, *Land Transport Master Plan 2008*, Pg 70

⁷⁷ The upgrading programme to retrofit existing MRT stations was completed in 2006. Furthermore, the LTA also embarked on a programme to ensure barrier-free routes within a 400m radius of all MRT and LRT stations, and to retrofit key overhead bridges near MRT stations and transport hubs with lifts by 2018. In 2006, the LTA also mandated that new public buses had to be wheel-chair accessible. It further committed that all public buses would be wheelchair-accessible by 2020. (LTMP 2008 and 2013)

⁷⁸ PTC's website: <http://www.ptc.gov.sg/about/overview.htm> (cited Nov 27 2013)

⁷⁹ Previously, fare affordability was monitored through a 5-yearly Household Expenditure Survey.

⁸⁰ SBS Transit, "4.6% Reduction In Bus & Train Fares", 2009, http://www.sbstransit.com.sg/download/Fare_reduction_20090221.pdf (cited Dec 1 2013)

⁸¹ In 2011, \$4 million from the Public Transport Fund and PTOs was set aside to fund 200,000 public transport vouchers of \$20 each for the low income. Source: http://app.ptc.gov.sg/get_content.aspx?id=news050811111041 (cited Dec 1 2013)

⁸² Looi Teok-Soon, Tan Kim-Hong, "Singapore's case of institutional arrangements for fare affordability" 2009, <http://ses.library.usyd.edu.au/bitstream/2123/5876/1/5-02-056-2009-08-27-Looi-Singapores-case-of-institutional-arrangement-for-fare-affordability.pdf> (cited Dec 1 2013)

⁸³ Gopal & Low

A number of changes were proposed during the 2012-2013 Fare Review Mechanism Committee review. In response to feedback gathered from the general public and commuters stating concern about fare affordability, the Transport Minister tasked the Committee to take a more holistic look at the existing public transport concession schemes, especially for the more vulnerable groups⁸⁴. The Committee recommended additional concessions to be extended to several different groups such as low income workers, persons with disabilities and polytechnic students. The new concession schemes for low income workers and the disabled were proposed to be government funded, marking a significant departure from status quo.

To improve monitoring of fare affordability (see Exhibit 2), the Committee also mooted new affordability indicators. The inclusion of a new indicator that tracks affordability to the 2nd decile income group households in particular signals a greater attentiveness and commitment to meet the transport needs of the lower income.

Exhibit 2: Revised indicators for affordability

Current affordability indicator	Proposed affordability indicator	Remarks
Based on the 2 nd quintile characteristic family. Baseline HES data used included bus, train and taxis.	Based on 2 nd quintile household expenditure and income. Baseline HES data used will exclude taxis.	More accurately captures the expenditure on bus and train fares.
None for income group lower than the 2 nd quintile.	Based on 2 nd decile household expenditure and income. Baseline HES data excludes taxis.	Additional indicator to track the lower income group.

Table 4: Summary of changes to the fare affordability indicator
(Source: FRMC)

The Committee also recommended that while the Government should continue to contribute to the Public Transport Fund, PTOs should also be required to contribute an amount set by the PTC whenever there is a fare adjustment. Doing so, according to the Committee, would systematically set aside more resources for the poor, as well as force the operators ‘to share gains with commuters’⁸⁵. Financial penalties should also be channeled to this fund, which is already being done.⁸⁶

MOT accepted the Committee’s recommendations (see **Annex F** for details) and the PTC has started the Fare Review for 2012 and 2013, to be completed in 1Q2014.

Responses and Impact

While the Fare Review Mechanism Committee’s recommendations for greater concessions were generally well-received, the prospect of a fare review and likely fare increases stirred dissatisfaction.

In a bid to convince the public that Singapore’s public transport fares were affordable, the FRMC and transport officials shared observations that the actual fare adjustment over the years

⁸⁴ The Fare Review Mechanism Committee, “About Us”, <http://frmcommittee2012.sg/about/> (cited Dec 4 2013)

⁸⁵ 2013 Fare Review Mechanism Committee Final Report, Pg 69-70

⁸⁶ LTA News Release, “SMRT to be Fined \$2 Million for December 2011 Train Service Disruptions along the North South Line” Jul 16 2012, <http://app.lta.gov.sg/apps/news/page.aspx?c=2&id=81f154b1-7487-46aa-9ecd-4db4669200c7> (cited Dec 5 2013)

had been significantly lower than the mean annual growth in national wages and in CPI, and that Singapore’s average public transport fares were lower than other comparable cities such as London, Hong Kong, New York⁸⁷. (Exhibit 3)

Exhibit 3: Comparisons of Public Transport Fares Across Cities

City	Average Bus Fare S\$*	Average Rail Fare S\$*	Average Bus Fare (PPP Adjusted)**	Average Rail Fare (PPP Adjusted)**
Singapore	S\$ 0.63	S\$ 0.86	S\$ 0.63	S\$ 0.86
Hong Kong***	S\$ 1.00	S\$ 1.38	S\$ 1.20	S\$ 1.65
London	S\$ 1.15	S\$ 3.41	S\$ 0.89	S\$ 2.65
New York City	S\$ 1.51	S\$ 1.88	S\$ 1.24	S\$ 1.54
Tokyo	S\$ 2.59	S\$ 2.10	S\$ 1.59	S\$ 1.29

* Computed using 2011 Exchange Rate published on World Bank website.
 ** Adjusted using the 2011 Purchasing Power Parity (PPP) Conversion Factor published by the World Bank.
 *** Average bus fare for Hong Kong is based on Kowloon Motor Buses (KMB) only.

Table B1: Comparison of average fares per passenger boarding with other cities
 (Source: LTA)

City	Average Bus Fare Over GNI Per Capita X 10 ⁻⁵	Average Rail Fare Over GNI Per Capita X 10 ⁻⁵
Singapore	1.03	1.40
Hong Kong	2.25	3.10
London	2.40	7.14
New York City	2.46	3.06
Tokyo	4.33	3.52

Computed using 2011 GNI per Capita published on World Bank website.

Table B2: Ratio of fares to Gross National Income (GNI) per capita
 (Source: LTA)

Source: Fare Review Mechanism Committee Report 2012, pg 83

However, these explanations did not seem to stem the unhappiness over a likely fare increase. Based on comments online, posted on news articles, blog posts and the Minister for Transport’s Facebook page⁸⁸, one commonly articulated view was that transport operators should not be allowed to increase fares without first improving service standards—a view that has also been voiced by several MPs⁸⁹.

Others objected to fare increases on the basis that PTOs were turning a profit and should therefore not need additional fare increases. The Workers’ Party issued a statement in response to the FRMC report, stressing that public transport should be provided as a public good and not for profit. Therefore, it argued that the government should not be looking to safeguard profits of the PTOs through the fare reviews⁹⁰.

While the actual details of any fare increases have yet to be announced, based on the reactions to the FRMC recommendations, these are likely to be extremely politically charged and unpopular, despite assurances and additional measures put in to safeguard affordability.

⁸⁷ Samuel Ee, “Govt accepts fare review report in full: Next task is for PTC to apply the new formula for the 2014 fare review” *The Business Times*, Nov 12 2013.

⁸⁸ See comments on article “Concession schemes for low income workers, persons with disabilities among fare review recommendations”, *Yahoo! News Singapore*, Nov 5 2013, <http://sg.news.yahoo.com/hd---concession-schemes-for-low-income-workers--persons-with-disabilities-among-fare-review-recommendations-113842865.html>; as well as on Minister of Transport’s Facebook page: <https://www.facebook.com/luituckyew/posts/701299313233850>

⁸⁹ Goh Chin Lian, “Two MPs seek freeze on transport fares”, *The Straits Times*, March 7 2013.

⁹⁰ Gerald Giam, “WP Statement on Fare Review Mechanism Committee Report” Nov 6 2013, <http://wp.sg/2013/11/wp-statement-on-fare-review-mechanism-committee-report/> (cited Dec 13 2013)

Task

As a Director of Land in the Ministry of Transport, you are in charge a comprehensive review of the LTA's transport policies, in view of their effectiveness to date, as well as to address public concerns and reactions to them. You have been tasked to address the following:

- In light of the continued public dissatisfaction with the current regime where profit-driven public transport providers operate as de facto monopolies in their respective areas, as well as the incessant calls for nationalisation, what do you think should be the government's response and why? Would you recommend nationalising the PTOs? If so or if not, why?
- Would you consider further tightening the government's regulatory regime, beyond the steps taken in recent years? If so, in which areas, and if not, why?
- What are your views of these current efforts to introduce more competition to Singapore's bus and rail sectors? Should these be continued, further intensified, or scaled back? Bearing in mind the challenges in introducing more competition, how should this be done, and why? How else should the LTA adjust its long-held policies regarding competition (e.g. encouraging competition *for* the market, not in the market) for the bus and rail sector?
- Do you think there is anything problematic about the structure of Singapore's public transport industry? Should the government step in to re-structure the industry, and move away from the current model of having only two multi-modal operators? What are the pros and cons of doing so?
- How can the LTA more effectively shift commuters from cars to public transport, given the deep-rooted perception that cars are a superior mode of transport? What more should the Singaporean Government do to ease transport woes in a land scarce country?

The 1996 Transport White Paper: Proposals and Reactions

The 1996 White Paper, titled “A World Class Land Transport System” formed the blueprint for Singapore’s future land transport system. One of its core strategies was to “provide a quality public transport system”

Making Public Transport Attractive: Parameters of Quality

In the White Paper, the Republic’s rail network was compared to the ones in Tokyo and Paris, where train stations in the downtown areas were often not more than 500 metres apart. The Mass Rapid Transit (MRT) system was to be like Tokyo’s Chikatetsu and Paris’s Metro. Tokyo’s trains started running in 1927 and Paris’ in 1900, while MRT started much later in 1987.

The key idea was to build a public transport system of such top-notch quality and convenience that most Singaporeans would opt to use it over driving. But what constituted quality? Clearly, accessibility plays a major role – from the moment the commuter steps out of his home, the nearest bus stop should be easily reached by foot and under shelter. After the passenger step off from the train, he would pass through covered walkways to get to the nearest buildings – ensuring that he gets to his destination in rain or shine.

Waiting time for buses should be cut to mere minutes – thanks to more express and feeder services, stated the White Paper. Real-time bus arrival times would be made more readily available, to reduce uncertainty and waiting times.

Accessibility also comes from a multi-model experience. A commuter can consider making a short trip via the Light Rapid Transit (LRT) system that would be connected to the MRT. In the White Paper, Bukit Panjang and Orchard Road were being assessed for its suitability of running LRT systems.

Last, it also meant not just bringing buses and trains close to destinations but making these stations destinations in themselves – the plan was to include more intensive developments around train stations. The Land Transport Authority (LTA) had said it would aim to develop such commercial projects in train stations.

The transport plan also outlined how more MRT lines will be added, more quickly, in order to develop a fully comprehensive rail network. The North-East Line (NEL) was given the green light in the same month the White Paper was revealed. It would be the Republic’s first fully automated, fully underground rail line – and the world’s first driverless mass train system.

Overall therefore, the long term plans for quality travel was made in terms of accessibility, shorter waiting times, and greater integration between different modes of public transport as well as within destinations.

Making Public Transport Affordable: Profits and Subsidies

Balanced against the demands of quality was the need to ensure affordability. The 1996 White Paper on a World Class Land Transport System was the first formal documentation of the three principles for the financing of public transport. These were: (a) Affordability: Fares have to be

realistic and revised periodically to adjust for justifiable cost increases; (b) Private sector discipline: Operating revenue must be able to cover operating costs; and (c) Long-term view: There must be a sustainable policy on asset development. The key idea was to keep public transport fare increments predictable, transparent and any increments “small and regular.”

In 1997, the PTC announced that it would implement a “CPI + X” formula to cap annual fare adjustments by the PTOs beginning from 1998.

Taxis and other alternative modes of transport

Taxis, while a more expensive form of public transport, were also considered and changes about them proposed in the White Paper. These changes were to make them more efficient than before.

To curb empty cruising that added to road congestion, taxis would be charged for using roads, i.e. they would be subject to congestion charging as with private vehicles. Taxis can also wait at stands to be called. To ensure prices correctly met demand and supply, a more flexible fare structure would be adopted.

To encourage higher service standards, taxi companies would be constantly evaluated in terms of their performance, and their performance publicised.

Other transport-related measures in the document included building bicycle facilities at MRT and bus interchanges, encouraging more people to cycle. The park-and-ride scheme would also be introduced at more locations, to encourage more people to take public transport.

Plans and Proposals: The Public Reaction

Given the scope of its proposed changes, the 64-page White Paper naturally sparked plenty of interest and debate among politicians and ordinary citizens alike. At a dialogue on the document in January 1996, about 50 community leaders, professionals and others raised their concerns on land transport.

Mr Ron Chandran-Dudley from the Disabled People's International Association reminded the LTA to take into account the needs of the disabled. He said that the LRT and MRT should be made accessible and convenient for the handicapped.

For others like student Wilson Chia, 23, he found it difficult to relate to the world-class transport system vision. Immediate commuting problems were a bigger issue.

There were other suggestions from economists and academics at the dialogue. Architect Wee Chwee Heng raised the idea of "walking towns" where facilities could be situated within a 500 m radius, diminishing the need for any roads.

Academic Chin Hoong Chor suggested educating citizens and making people feel guilty about the social cost of driving.

And in the same month, a debate on the White Paper took place in Parliament. Members of Parliament (MPs) mostly welcomed the idea of a world-class transport system. But there were concerns about cost and timeliness.

With regards to cost, Mr Mah assured Parliament that prices would be kept affordable, although fare increases are inevitable because of higher operating costs. Fare increases will be evaluated by the Public Transport Council and will be adjusted in small amounts.

Then MP for Bedok GRC, Dr Arthur Beng, had also asked about the measures in place to improve public transport during the 10 to 15 years' period the LTA sets out to build system. He asked the LTA keep taxi fares stable in the interim period so that frustrated commuters would not opt to buy cars instead. He also brought attention to improving current bus services.

In response, Mr Mah said there would be several short-term measures the Government will implement in the run-up to the construction of a world-class transport system. These measures included real-time bus arrival information and refurbishing bus stops.

Other issues MPs had included the White Paper's new financing scheme, which drew mixed reactions. Then Tampines GRC MP Chng Hee Kok said the proposal would see Singapore repeating the same mistake other major cities made when they subsidise public transport. It would only lead to operating losses and government deficits. On the other hand, MP Chandra Das of Cheng San GRC supported the financing framework and even asked for it to be extended to bus companies.

The greatest criticism came from opposition MPs Chiam See Tong and Low Thia Khiang. Mr Chiam, who headed the Potong Pasir ward, called the White Paper an election ploy, noting that it was unveiled in an election year. While the Plan was long on aspiration, it was short on details – for example, the document provided no specific information, such as when the NEL would be built. Hougang MP Low Thia Khiang said it was a precursor to the introduction of ERP.

At the end of it all, would Singaporeans really switch to public transport given a robust system that was unveiled in the White Paper?

In a Straits Times article published in January 1996, half of the 18 respondents polled said they would make the switch to public transport. Amongst them was Mr Clement Chua, 36, an assistant vice-president of a logistics company. "If door-to-door public transport really materialises, I won't need to drive a car," said Mr Chua. Others, like Mr Charles Tiong, recognised that a car may not be a good investment given that it depreciates over time. He said he would be able to invest his money in something other than a car, and can choose to take a taxi or rent a car instead. But technical officer Steven Chee still wanted to own a car. He had gripes with crowded trains and congested roads. It would take him an hour to get from his home to his office, he said. Similarly, software engineer Andy Chong preferred shorter travelling time. He said that a 20-minute car trip would translate into an hour by public transport, adding that he would switch "if I don't need to wait more than three minutes".

Consider the economic reality of transport here

Gerald Giam, for The Straits Times, 19 July 2011

Minister for Transport Lui Tuck Yew recently criticised the Workers' Party's (WP) proposal for a not-for-profit National Transport Corporation to replace the current two listed public transport companies.

Mr Lui claimed that WP's proposal had "serious downsides, chief amongst which commuters and taxpayers (yes, even those who don't take public transport) are likely to end up paying more, and possibly, for a poorer level of service over time".

He added that "it is the profit incentive of commercial enterprises that spurs efficiency and productivity improvements".

Market failures in public transport

These are simplistic and tired old arguments about the virtues of private enterprises which fail to fully appreciate the economic reality of the public transport industry in Singapore.

Firstly, taxpayers who do not take public transport already contribute to the provision of public transport in the form of taxes that pay for the construction of roads, the development of rail lines and the purchase of the first set of trains on every new MRT line.

Secondly, public transport is an industry rife with market failures which the Minister seems to ignore. The current regime where SMRT Corporation (SMRT) and SBS Transit (SBST) each provide both rail and bus services provides an illusion of competition.

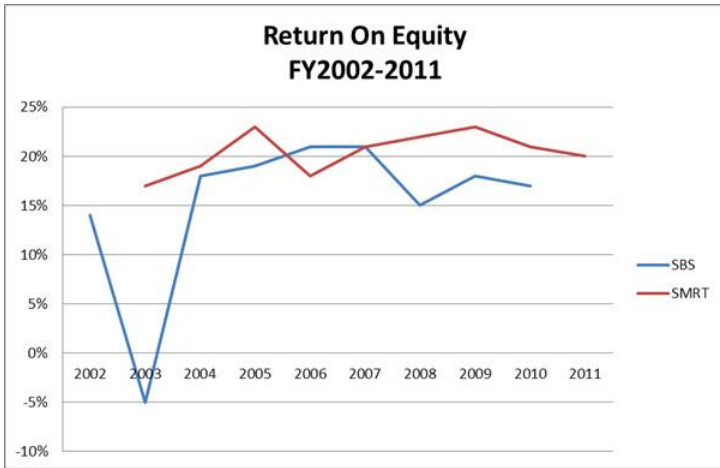
The reality is that SMRT and SBST have clearly delineated areas of responsibility with no route overlaps. This makes each of them a de facto monopoly provider in their own particular areas.

Commuters do not have the freedom to switch between providers whenever they choose to, nor do we see public transport operators (PTOs) fighting to acquire and retain customers like airlines do with promotions, discounts and loyalty programmes.

The monopoly status is also reflected in the consistent high returns these companies earn. Freed from the discipline of genuine market competition, they have few incentives to raise service standards and keep prices low.

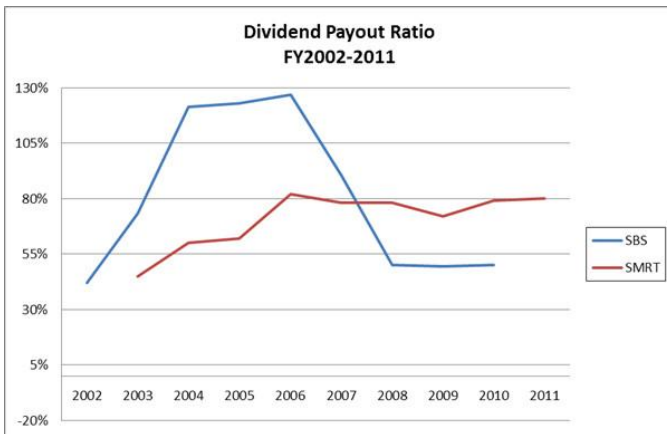
To say that shareholder discipline will create such incentives is naïve at best, and wrong at worst. Shareholders seek higher profits, not better or more affordable services. The government must examine whether a public utility should be owned and operated by what are effectively private monopolists earning monopoly rents.

Mr Lui claims that the current regulatory regime is a "robust" one that does not allow operators to benefit at the expense of commuters. This is a remarkable assertion once we consider the profits of PTO's—\$215.4 million last year alone. The fines imposed for not meeting service standards pale in comparison to these profits. SMRT and SBST have consistently enjoyed high returns on equity (ROE) of above 15 per cent. For SMRT, it has been above 20 per cent in most years. In contrast, the median ROE for a Singapore listed company is about 9.5 per cent.



Source: SMRT and SBST company financials

A company that provides a public good should not earn such excessively high returns, as these invariably come at the expense service quality and benefits to commuters. The overcrowded trains and buses show how companies which do not face genuine competition can increase profits and raise shareholder returns at the expense of the commuting public.



Source: SMRT and SBST company financials

As a result of such profit-oriented behaviour, the two PTOs' high returns have been enjoyed by their shareholders. For example, SMRT has paid out close to 80 per cent of its net income in recent years. These generous dividends could instead have been used to provide better services or reduced fares. However, it is not possible for publicly-listed firms to do this, as their obligations are to their shareholders.

Public transport as a public good

Mr Lui mentions the “serious” downsides of a nationalised public transport system, while ignoring workable examples—even locally—where the government heavily subsidises public services or even provides services directly to the public.

Schools, for example, are mostly government run. Public hospitals and clinics are heavily subsidised. Even public housing is subsidised by public money.

Yet when it comes to public transport—an essential service for the majority of Singaporeans—the government advocates its provision by listed corporations, whose first priorities are to their shareholders.

Public transport is a public good that serves a national purpose, in the same way as healthcare,

education or public housing. Thus running it on a cost-recovery basis will create positive externalities if it benefits the overall economy, for example, by getting people to work on time and in comfort.

In the face of the pressing need to provide this public good, it is clear that the present public transport model needs to be overhauled.

WP's National Transport Corporation proposal

WP has, since 2006, called for the MRT and public buses servicing major trunk routes to be brought under a National Transport Corporation (NTC), which will oversee and provide universal transport services.

NTC should aim to provide safe, affordable, accessible, efficient and reliable universal public transportation services, on the basis of cost and depreciation recovery. As a not-for-profit corporation owned by the government, NTC will serve the needs of the public and not that of listed company shareholders.

WP's proposal recognises public transport in Singapore as an inherent monopoly and as a public good. A well-managed NTC can provide superior outcomes compared to the present profit-oriented monopolies. We would expect no less from NTC, in terms of efficiency and cost-effectiveness, compared to the way any other statutory board is managed by the government.

To achieve these outcomes, the government should set stringent key performance indicators (KPIs) for the NTC. These KPIs could include:

- Affordability of fares to ordinary Singaporeans;
- Containment of costs;
- On-time bus and train performance;
- Customer satisfaction ratings (through independent surveys);
- Percentage of public transport ridership;
- Productivity improvements and innovation.

To incentivise their performance, the bonuses and pay increases of NTC executives should be pegged to the achievement of such KPIs, and there could be negative consequences for not meeting them. This will be more effective in ensuring service standards compared to the present regulatory regime, where the fines imposed on the companies for failure are a pittance compared to their profits.

Conclusion

The current model of provision of public transport has produced many undesirable outcomes, as evidenced by the "crush loads" experienced by commuters every day and the public outcry each time fares are increased.

It would do Singaporeans no good if the government sticks dogmatically to its narrow philosophy of the virtues of privatisation and the profit motive, without considering the true economic reality of the public transport industry in Singapore.

Source: <http://geraldgiam.sg/2011/07/overhauling-singapores-public-transport-model/>

Annex C

Public transport model not key issue

Josephine Teo, for the Straits Times, July 22, 2011 Friday

Mr Gerald Giam of the Workers' Party has argued that Singapore should abandon its current public transport model in favour of a model in which public transport is nationalised. He argues that the current model has produced 'undesirable outcomes'.

Changing an industry's structure is a serious matter. Throwing it out without a clear understanding of its intricate workings is not only irresponsible, but would detract from the real issues at hand.

Most economists agree that public transport is best run as a single integrated network. This means not having multiple providers of similar routes or services. This approach minimises the duplication of resources, lowers systemic costs and provides the best connectivity for commuters. Mr Giam appears to recognise this, because competition would be absent in the model he champions, though at times he also seems to argue for competition.

Within an integrated public transport network, it is possible to have either a single (usually nationalised) operator or multiple commercial operators appointed to run the different parts of the network. The latter is the case in Singapore today. While such operators are the sole providers of the rail lines or bus services that are licensed to them, they cannot exercise monopoly power because service standards, the continuity of their licences and, most importantly, pricing power are not in their hands.

In Singapore, the Public Transport Council (PTC) is the independent body set up to regulate fares for public transport. Service standards are set and enforced by PTC and the Land Transport Authority (LTA) for bus and rail respectively. Because rail licences are valid for only a finite period and operators have to tender for new licences, they cannot take licence renewals for granted. Such contestability is completely non-existent in Mr Giam's single nationalised operator model. As part of the Land Transport Master Plan, contestability will be further enhanced as rail licence periods are being shortened and bus tenders will be introduced.

The basic tenets of our current model are sound and on the whole they have served us well. Various comparative studies show that both bus and rail operations in Singapore are among the most efficient in the world. This comes about because the model has a good combination of commercial motivations and government regulation.

Our model has given operators strong incentive to improve productivity, while clawing back a fair share of the savings to benefit commuters. The fare formula keeps fares lower than they otherwise would be. As a result, Singaporean commuters pay fares that are among the lowest for comparable cities, even compared to cities which have provided generous operating subsidies to run the public transport system.

There is an additional layer of safeguard. If the operators were to be wildly productive and earn an excessive return, the PTC has the discretion to deny any fare increase.

From the above, it is clear that there is no scope for the monopoly rent that Mr Giam alleges the operators extract.

The profitability of the operators should also be taken in context. About half their earnings are

from non-fare sources such as advertising and rentals. Should the system be nationalised and run on a cost recovery basis, the operator would lose the motivation to increase non-fare revenues and improve efficiency. Fares would have to increase more. Is such an outcome more desirable?

Let me now turn to Mr Giam's reasons for changing the structure of public transport completely. He cites only two: the outcry over fare increases and 'crush loads' experienced by commuters. Neither is caused by the current industry structure.

The public reactions to fare increases are understandable, but they will not go away even with a nationalised system.

Congestion on our trains and buses came about because population growth over the last few years has led to rapid growth in ridership. This, in turn, has outpaced planned capacity increases. The solution to this is not structural change but to tighten regulatory requirements and increase capacity - adding more rail lines, trains and buses as well as modifying infrastructure to increase frequency.

The Government has been working with the public transport operators to do just that. Since February 2008, close to 2,000 weekly train trips have been added while 64 bus services have been improved since June 2010. New train lines and extensions will be introduced every year for the next six years. Clearly, even more needs to be done, and will be done.

The public transport model in Singapore is working. To be sure, there are gaps to address. Contrary to the arguments of Mr Giam and the Workers' Party, the solution is not a nationalised model but tenacious efforts to increase capacity and improve services to meet commuter needs. This we will do, and Singaporeans can be assured of that.

The writer is the Minister of State for Transport and Finance

Public Transport: Why the PAP and WP positions fall short of commuters' needs

Hazel Poa, National Solidarity Party Press Release, July 27, 2011

There has been much debate over our public transport system lately. Public unhappiness over fare increases stems from dissatisfaction over the level of service in our public transport, primarily over issues of under-capacity and the lack of any alternatives for the bulk of our population.

The Workers' Party proposes the nationalization of public transport. The People's Action Party on the other hand advocates the status-quo. But it should be apparent that the status-quo is not working. The PAP needs to snap out of its complacency.

The WP's proposal to nationalize public transport however would not solve the problem of under-capacity. It is unrealistic to expect state-run organizations, usually large and cumbersome, to be able to respond speedily to rapid changes in demand. We need only look at our public housing, public hospitals and polyclinics which are similarly plagued by under-supply to realize that.

What is needed then is more competition. Theoretically, we have two companies "competing" against each other in bus and MRT services. However, since there is no duplication in their area of service, commuters have no real alternatives. Thus we effectively have two monopolies.

First, we need to consider bus services and MRT services separately.

MRT Services

It is not practical to expect full privatization and competition in MRT services due to the infrastructure and huge capital required.

But partial competition can be introduced. The government can retain ownership of the major fixed assets – tracks, stations and trains – and sub-contract out the operations to private companies via tender. SMRT and SBS Transit should not have certainty of operating rights, but rather would have to tender for the rights at regular intervals, in competition with each other and with other companies that may be set up by former employees or foreign operators. Each line (North-South, East-West, North-East, Circle, Downtown, various LRTs) can be tendered out separately or bundled. Tenders will be awarded based on service levels and cost. The Government charges fares at a level sufficient to pay the sub-contractors.

Unfortunately, while this arrangement provides incentives for efficiency and cost control, capacity would still be determined by the Government and hence cannot be as responsive as private operators. It is an inherent weakness of the MRT system that capacity cannot be increased rapidly. We therefore need to rely on our bus services to be more responsive.

Bus Services

Bus services should be liberalized. We need multiple private bus operators who are smaller, nimbler and profit-seeking, and who will respond faster to changes in demand. If demand

increases rapidly, profit-seeking entities will eagerly increase supply just as rapidly. Slow movers will lose market share.

Routes should be centrally managed by a transport authority, and every private operator, regardless of size, should be free to apply for licenses to ply any of the routes, making their decisions based on business considerations. Operators will either ply existing established routes or propose new ones to the transport authority. Bus services may also duplicate MRT routes to provide indirect competition to MRT services, and to meet demand in excess of MRT capacity. Capacity in bus services can be expanded far more rapidly than that of MRT services.

Let market forces determine the supply and set the fares. The government's role in bus services should be limited to:

- setting the standards for safety and service,
 - managing routes,
 - disseminating information on bus routes and ridership numbers,
 - gathering commuter feedback, and
 - licensing.
- In addition, the Government should fulfill its social responsibilities by providing the necessary infrastructure and subsidies for non-profitable but essential routes (which can be funded by bus licensing fees), full-time students, elderly and disabled, and low-income earners and families.

With this model, we can move towards a more responsive transportation sector driven by market forces, with the incentives to innovate and cut costs, while meeting our social obligation of ensuring affordability for those with lower incomes.

Source: <http://nsp.sg/2011/07/27/public-transport-why-the-pap-and-wp-positions-fall-short-of-commuters'-needs/>

Summary of 2013 LTMP Initiatives

MORE CONNECTIONS**Expanding Our Rail Network**

Double the length of our rail network to about 360km by building the following lines between 2020 and 2030:

- Cross Island Line (CRL) – by 2030
- Jurong Region Line (JRL) – by 2025
- Extensions to the Circle Line (CCL), Downtown Line (DTL) and North East Line (NEL)

More Bus Services

Add about 40 new bus services to enhance bus network connectivity under the Bus Service Enhancement Programme (BSEP)

Facilitating More Walking And Cycling

- Extend the sheltered walkway network by more than 200km under the Walk2Ride programme by 2018
- Add 90km of off-road cycling paths to more HDB towns to bring the total network to around 190km by 2020
- Integrate intra-town cycling networks with Park Connector Networks to create an island-wide cycling path network of more than 700km over the next 15 years
- Install more racks to secure 3,000 bicycles at 32 MRT stations by end-2014
- Conduct a pilot bicycle-sharing scheme at Jurong Lake District by end-2015
- Build seven more Integrated Transport Hubs over the next 10 years

Sustainable Expansion Of The Road Network

- Build the North-South Expressway by around 2020
- Study the feasibility of a “reversible flow” traffic scheme along the Kranji Expressway Pan Island Expressway (KJE-PIE)
- Review the implementation of the Singapore Underground Road System (SURS) tandem with new developments in Marina South and the new southern waterfront city

BETTER SERVICE**Improving Rail Services**

- Add more trains to every rail line for the next few years from 2014
- Upgrade the signalling system for the North-South Line by 2016 and the East-West Line by 2018
- Enhance the MRT Operating Performance Standards to move towards higher train frequencies, minimise service delays, and enforce more stringent maintenance and service reliability requirements

Improving Bus Services

- Increase the bus fleet by about 20 per cent i.e. the equivalent of 800 new buses under the BSEP over five years
- Ensure that 95 per cent of feeder bus services run at scheduled intervals of 10 minutes or less over two hours during both the morning and evening peak periods. Ensure that 90 per cent of all bus services operate within 10 to 12 minute scheduled intervals, with all bus services operating within 20 minute scheduled intervals
- Require public bus operators to reduce their loading levels to 85 per cent of a vehicle’s licensed capacity
- Work with private bus operators to explore how to tap on their resources to run short

<p>services during peak hours such as localised bus routes to bring residents from their homes to MRT stations</p> <ul style="list-style-type: none"> • Accelerate the implementation of BSEP • Add another 30km of bus lanes and expand the Mandatory Give-Way to Buses scheme to about 150 more bus stops island-wide • Implement 20 more bus hubs • Add 31 real-time bus arrival information panels in 2013 • Study the feasibility of providing information on the level of crowding on buses • Implement a common bus fleet management system for all public transport buses to enhance service reliability from early 2015 • Introduce a Quality Incentive Framework to improve the regularity of bus waiting time starting from 2014
<p>Taxis And Car-Sharing : Improve the quality and availability of taxis and car-sharing</p>
<p>LIVEABLE AND INCLUSIVE COMMUNITY</p>
<p>No Barriers: Improving Mobility For The Elderly and The Less Mobile : Install lifts at about another 40 pedestrian overhead bridges by 2018</p>
<p>Reducing Noise Levels</p> <ul style="list-style-type: none"> • Install 20km of rail noise barriers by 2020 • Study measures to mitigate road traffic noise
<p>Safer Roads For All:</p> <ul style="list-style-type: none"> • Implement visual cues to remind road users to look out for one another such as “Look” markings at pedestrian crossings; “Give way” signs showing pedestrians walking, markings at zebra crossings reminding cyclists to dismount and push their bicycles, and signs highlighting popular biking routes • Extend the Green Man Plus Scheme to another 500 crossings by 2015 • Introduce the audio tactile system to more housing estates to aid the visually-impaired
<p>More Information And Incentives For Consumers To Help Protect The Environment : Review the Carbon Emissions-based Vehicle Scheme before 2015, and adjust it periodically to ensure that it remains effective</p>
<p>Reclaiming Our Public Spaces: Car Free And Car-Less Zones: Work with other agencies to introduce car-free/car-less zones within selected commercial and historical areas in the city centre</p>
<p>REDUCING RELIANCE ON PRIVATE TRANSPORT</p>
<ul style="list-style-type: none"> • Review vehicle growth rate to determine if a further reduction is necessary • Explore measures to provide stability to the number of Certificates of Entitlement (COEs) issued at each bidding period • Move to a new road pricing system based on global navigation satellite system (GNSS) technology • Continue to ensure smooth-flowing traffic by erecting new Electronic Road Pricing (ERP) gantries where required • Install 30 closed circuit television (CCTV) cameras by end-2014 to deter illegal parking

The Fare Review Mechanism Committee’s recommendations

In November 2013, the Fare Review Mechanism Committee (FRMC) submitted their recommendation report to Minister for Transport, following a year-long review involving various stakeholders and members of the public. Key recommendations of the FRMC are detailed in the following paragraphs.

The FRMC proposed some additional tweaks to enable fares to adjust sufficiently for PTOs to cope with rising costs. For instance, they recommended a **more responsive fare adjustment formula** that included a new Energy Index component to track energy cost. This was because energy costs had risen in proportion to other operating costs—in 2011, it consisted of 23% of the Public Transport Operators (PTO)’s operating costs, compared to 16% in 2005.

The FRMC also proposed to replace the Consumer Price Index (CPI) with a ‘core’ Consumer Price Index (cCPI) as a factor that would more accurately reflect the PTO’s operating costs. The cCPI excluded costs of accommodation and private transport, which were seen as items not relevant to public transport. The revised formula is thus:

Price Index- Productivity Extraction (0.5%), where Price Index= $0.4cCPI + 0.4 WI + 0.2 EI - X$ – Productivity Extraction, where

- cCPI is the change in core Consumer Price Index.
- WI is the change in Wage Index. This refers to the Average Monthly Earnings (Annual National Average), adjusted to account for any changes in the employer’s CPF contribution.
- EI is the change in Energy Index. This refers to a composite of cost changes in electricity and diesel.

Table below summarises the key changes.






CURRENT Fare adjustment formula = 0.5 CPI + 0.5 WI – X	NEW Fare adjustment formula = 0.4 cCPI + 0.4 WI + 0.2 EI – X	More details
 CPI is headline CPI Weightage: 0.5	 CPI is core CPI Weightage: 0.4	Core CPI more accurately captures cost changes. Weightage is reduced to reflect the PTOs’ prevailing cost structure.
 WI is mean Wage Index Weightage: 0.5	 WI is mean Wage Index Weightage: 0.4	Weightage is reduced to reflect the PTOs’ prevailing cost structure.
No Energy Index	 EI is the Energy Index, made up of an equal weightage between an electricity and fuel index. Weightage: 0.2	More accurately captures the changes in PTOs’ energy costs.
Productivity Extraction X = 1.5%	Productivity Extraction X = 0.5% (valid for 2013 to 2017)	Revised based on productivity gains achieved in the last five years. (The value of productivity gains should never be negative.)

Table 8: Summary of differences between the current and new fare adjustment formula
(Source: FRMC)








The Committee also recommended having a **more flexible roll over mechanism** to allow the PTC flexibility to vary fare adjustment quantum granted at each fare review exercise, or defer the exercise to the next year.

Under the current fare review framework, when the PTC did not grant the full fare adjustment quantum for reasons such as adverse economic conditions, or deterioration in overall affordability of public transport fares, the remaining fare adjustment quantum that was not granted was forfeited. The Committee saw this as unsustainable for the financial viability of the public transport industry. The roll-over mechanism would thus allow both flexibility to the PTC to delay fare increases, while still ensuring that the PTOs would be fully compensated for cost increases over the long term.

The Committee also recommended the removal of ‘Return on Total Assets’ (ROTA), which was originally put in place as a check to make sure PTOs are not making excessive profits compared to returns of other industries with similar risk profiles. The PTC could consider the PTOs’ ROTA when deciding whether to grant a fare increase or not—if the operators’ ROTA was high, the PTC could decide to withhold a fare increase, which was what they did in 2007, in rejecting the adjustment for RTS fares.⁹¹

Given the changes in the rail financing framework, the FRMC concluded that, because the PTOs were becoming more asset-light as they will not be required to own operating assets, the use of ROTA was rendered less meaningful and was thus proposed to be removed.

The FRMC surveyed a representative sample (n=4600) of Singaporeans about concessions schemes. From there, they formulated their recommendation to **broaden the current concession landscape**. (see Table below for summary of recommendations)

Types of commuter groups and concessions	Concessionary fares provide discounted fares per trip off the normal adult fares.	Monthly concession passes (MCPs) cap the monthly expenditure on public transport.
 Babies & toddlers under 0.9m	Travel free	Not applicable
 Children (below 7 years old and above 0.9m)	50% off adult fare ³	Not applicable
 Students (Primary / Secondary / Junior College / Institute of Technical Education)	50% off adult fare ³	MCPs available
 Tertiary students (Polytechnic / University)	Not applicable	Only MCPs available
 National Service Full-time	Not applicable	Only MCPs available
 Adults	Not applicable	Not applicable
 Senior citizens (60 years old and above)	25% off adult fare ⁴	Not applicable

² Transit Link Pte Ltd (TransitLink) is licensed by the PTC to provide integrated ticket payment services within the public transport industry.

³ Child and Student concessionary fares are currently pegged at 50% off adults fares, with a cap for travel beyond 7.2km.

⁴ Senior citizen concessionary fares are currently pegged at 25% off adult fares, with a cap for travel beyond 7.2km.

Table 2: Different concessions are available during a person's lifespan

Source: <http://frmcommittee2012.sg/frmc-report/>

⁹¹ Looi Teik-Soon and Tan Kim-Hong, pg. 12