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Affordable fares, sustainable public transport: The Fare Review Mechanism Committee Report

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AFFORDABLE FARES • SUSTAINABLE PUBLIC TRANSPORT

The Fare Review Mechanism Committee Report

AFFORDABLE FARES, SUSTAINABLE PUBLIC TRANSPORT

The Fare Review Mechanism Committee Report
2013

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As a society, we have to ensure that public transport is affordable and accessible for all Singaporeans.

LETTER FROM THE CHAIRMAN

Every day, our people depend on public transport to go to school, to work, to the market, for their recreation, and to go about their daily lives. Public transport is a basic need in Singapore. Recent reflections from Our Singapore Conversation, the national dialogue, tell us that Singaporeans want assurance of affordability and accessibility for basic needs. As a society, we have to ensure that public transport is affordable and accessible for all Singaporeans.

Our public transport must be safe. It must be well managed and run. It has been affordable, and must remain so. It also has to be viable and sustainable in the long term. With limited land space, we need to have a transport system that utilises space effectively and connects us to where we live, work and play. Our public transport must therefore be equal to, if not better than, other similar public transport systems in other countries.

For all these to happen, we must share responsibility. "We" means the Government, the Public Transport Operators (PTOs) and commuters. Each of us has distinct but shared responsibilities. The public transport system is undergoing a transition and has to evolve together with changes in the environment.

The Government's responsibility is to ensure that the environment in which our public transport system runs is safe. It needs to provide good physical infrastructure for our public transport. The infrastructure must be integrated into our Land Use Plan: accessibility to our homes, our workplaces, and to meet our social and recreational needs. These will entail careful planning, and require heavy manpower and financial investments.

In deciding how to allocate budgetary resources for the public transport system, the Government will have to be prepared to both take a long-term strategic view, and to recognise the social need and public purpose of the public transport system.

The PTOs have a business to run. They must run the transport system well, by adopting the best and most efficient business practices and models. If the business they are in has no prospects for making reasonable profits, then over time, they will not put in resources to maintain and enhance their system, and will eventually consider exiting the market.

As these transport operators run a public system, the commuters are also their social shareholders. Commuters' fares should therefore be regulated and this has been via the use of a fare adjustment formula. With changes to the costs of PTOs' business operations, a periodic revision of the fare adjustment formula is necessary.

In addition, as the PTOs are making profits, it seems only right that the PTOs, running a public service, share some of their gains for the benefit of commuters, as part of a sustainable framework of shared responsibilities.

The commuters' responsibility is to share and respect the limited common space in our public transport system with one another. For those who pay full fares, we are indeed appreciative of their contributions to a pool of concessions for those who really need them.

Commuters are also interested in the service performance of the public transport system. We agree that service performance is important. However, time is needed for the Government to work with the PTOs to further improve the public transport system. This is a huge undertaking, especially when the system has shown signs of ageing.

We have consulted the relevant stakeholders and also conducted a household survey. We can see that a careful balance is needed between the social aspects and the financial considerations of our public transport system.

This balance must go hand in hand with our distinct and shared social responsibilities, and shall be the framework for our specific proposals.

Indeed, this report – Affordable Fares, Sustainable Public Transport – captures our collective end goal. This is both our aspiration and action.

A careful balance is needed between the social aspects and the financial considerations of our public transport system.

Mr Richard Magnus
Chairman
Fare Review Mechanism Committee
October 2013

HOW TO READ THIS REPORT

Throughout this report, you will find various sideboxes and icons. Here is what they mean:

At a glance - This gives you a quick overview of the chapter before you start.

Sidebox - Boxes like this contain additional information related to the text.

Signpost - Sideboxes with arrows like this point you to related information or further elaboration elsewhere in the report.

Voices - Speech bubble boxes like this contain a summary of the opinions and suggestions that participants shared at focus group discussions.

Note from the Chairman - Boxes with this icon reflect the Chairman's views.

LEGEND

the Government

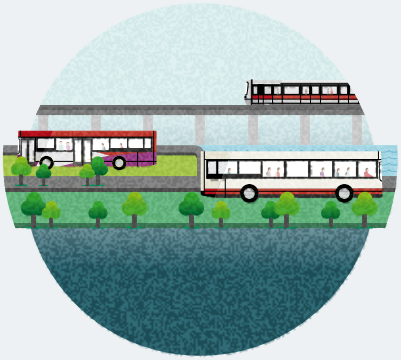
the Public Transport Operators

the commuter or public transport user

the average public transport user (also known as the 2nd quintile group)

the lower income group (also known as the 2nd decile group)

For a full definition of the terms used in this Report, go to the Glossary on page 78.



IN A NUTSHELL

The public transport system in Singapore is the main mode of transport for the majority of the population. It is important that public transport remains generally affordable and accessible, with measures to help various commuter groups through fare assistance schemes.

Household surveys show that public transport has become more affordable as a proportion of monthly household income over the years. Public transport fares have increased, but at a much lower rate than increases in income. At the same time, increasing fuel costs and other changes in the public transport landscape since 2005 mean that the public transport industry faces declining long-term financial viability. If this continues, the system will not be sustainable. Eventually, a vicious cycle will set in – fewer resources for investments, leading to lower service standards, leading to resistance for fare increases – and all commuters will be affected. Hence, there is a need to review the existing fare review mechanism and propose improvements so that maintaining affordable public transport for commuters is balanced with the long-term viability of the industry.

The Fare Review Mechanism Committee was set up in 2012 to review fare concessions, the fare adjustment formula, and the fare mechanism to ensure that fares remain affordable for the various commuter groups, while safeguarding the long-term financial sustainability of the public transport system. During this review, the Committee held a series of focus group discussions with stakeholders such as commuters, academics, and representatives from the grassroots, student unions, and social welfare organisations. For reality testing, the Committee also conducted a quantitative household survey involving some 4,600 individuals.

The Committee makes several recommendations:

For assurance that fares are affordable to commuters, we need to:

- **Provide more concessions** To help specific groups of commuters with public transport fares, the Committee recommends new concession schemes for the low income group and persons with disabilities to be introduced and funded by the Government, without imposing this as a financial burden on the Public Transport Operators (PTOs) and other commuters. In addition, the Committee recommends various improvements to existing schemes, e.g. a more affordable monthly pass for adults who are heavy and frequent users of public transport; more generous concession schemes for young children (under 7 years old), senior citizens, polytechnic students, and university students; as well as extending concession eligibility to a broader group of Singapore citizen students outside of the approved educational institutions.

  The Committee is of the view that funding these improvements to existing schemes can be through the current arrangement of fare adjustments over time. The Committee also proposes that the Public Transport Council (PTC), an independent body that regulates bus and train fares, be formally given the powers to impose these fare adjustments as part of fare adjustment exercises.

- **Improve the monitoring of fare affordability** To further ensure that fares remain affordable for all, fare affordability should be tracked for a wider group of households by income. In addition to the current tracking of fare affordability for the average public transport user, the lower income group should also be tracked.

- **Secure more resources for the Public Transport Fund** To help needy families cope with fare adjustments, the PTC could mandate that the PTOs contribute a share of any fare adjustment granted to the Public Transport Fund. PTOs that are more profitable should be required to contribute more. In a sense, this means that the PTOs are made to share their gains with commuters. To close the loop with commuters, proceeds from financial penalties imposed on the PTOs' service lapses should be channelled to the Public Transport Fund. In addition, the Government should continue to co-fund the Public Transport Fund together with the PTOs.

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For more details on how the average public transport user and lower income group are represented, go to Chapter Five: Fare affordability, page 44

For assurance that public transport is sustainable, we need to:

- **Have a more responsive fare adjustment formula**

  To better reflect the PTOs' cost changes, the Committee recommends revising the fare adjustment formula to introduce a new Energy Index component to track energy costs, and to replace the Consumer Price Index (All Items) component with a core Consumer Price Index, which excludes costs of accommodation and private transport. The revised fare adjustment formula, which we recommend to be valid for the next five years (2013 to 2017), will continue to have a productivity extraction factor for PTOs to share part of their productivity gains (but not pass on their productivity losses) with commuters.

  The recommended revised fare formula is as follows:
  Fare Adjustment = Price Index – Productivity Extraction
  where **Price Index** = 0.4 cCPI + 0.4 WI + 0.2 EI
  - 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.

  and **Productivity Extraction** = 0.5% (valid from 2013 to 2017)

- **Adjust fares regularly** The Committee recommends that the PTC conducts fare review exercises annually so that the changes in fares can keep pace with cost changes.

- **Have a flexible mechanism** The Committee recommends having a roll-over mechanism to allow the PTC some flexibility to vary the fare adjustment quantum granted at each fare review exercise or to defer the exercise in a particular year to the next year. This is to allow the PTC to balance the safeguarding of commuter interests and the long-term viability of the PTOs.

In conclusion, the Committee's recommendations are made to balance between:

Affordable fares
More concessions
Improved monitoring of fare affordability
More resources to the Public Transport Fund

Sustainable public transport
A more responsive fare adjustment formula
Regular fare review exercises
A flexible fare mechanism

▶▶▶ Highlights of the recommendations are shown overleaf.

HIGHLIGHTS OF RECOMMENDATIONS

To maintain affordable fares for commuters and to ensure the long-term financial viability of the public transport industry, the Fare Review Mechanism Committee recommends:

- More concessions
- Improved monitoring of fare affordability
- More resources to the Public Transport Fund
- A more responsive fare adjustment formula
- Regular fare review exercises
- A flexible fare mechanism

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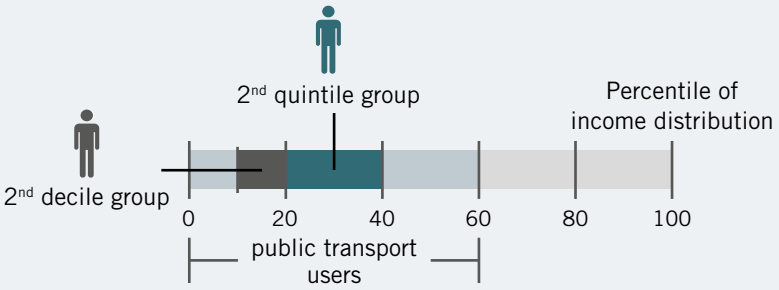
For more details, go to Chapter Five: Fare affordability, page 44

Improved monitoring of fare affordability

The Public Transport Council tracks fare affordability for households in the 2nd quintile income group, which represents the average public transport user. Household surveys show that the bottom 60% of households by income make up the majority of public transport users.



Tracking a wider group of households will help to keep fares affordable for the lower income group (the 2nd decile group).

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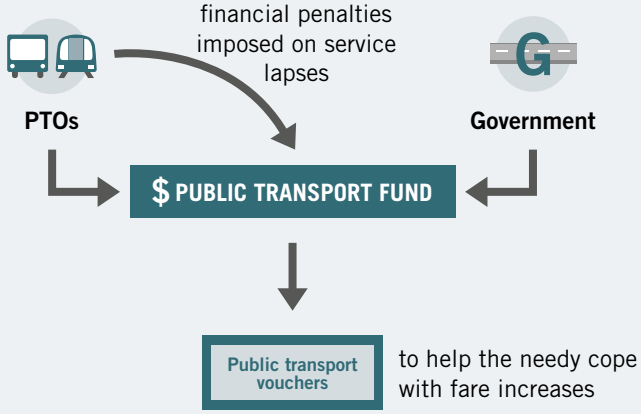
For more details, go to Chapter Seven: Fare review mechanism, page 62

More resources to the Public Transport Fund

To share gains with commuters, the PTOs should contribute a substantive amount to the Public Transport Fund, which is co-funded by the Government, to help the low income group cope with fare adjustments.



More concessions

For more details, go to Chapter Four: More concessions, page 34

New concession schemes

Funding: By the Government

Low Income Workers

Persons with Disabilities

Enhancements to existing concession schemes

Funding: Continue cross-subsidisation by commuters paying full adult fares

Monthly concession pass (MCP) pricing	The pricing for hybrid MCPs should be lower than the sum of bus-only and train-only MCPs.	
Child Concession Scheme	**Tertiary Concession Scheme**	**Senior Citizens Concession Scheme**
	Polytechnic students / University students	
Free travel for all children below age 7, regardless of height.	Sub-divide the tertiary MCP so that polytechnic students pay lower MCP prices, closer to that of secondary school MCPs.	Introduce a new MCP as an added choice for those who are heavy and frequent transport users.

Student concession eligibility for Singapore Citizens (SC)		**For heavy and frequent users of public transport**
Primary and secondary students	Tertiary students	
All SC students should be eligible for concessions. This includes home-schooled students and registered private institute students.	SC students studying full-time for their first Bachelor's degree in registered private institutions should also be eligible.	Introduce an adult Monthly Travel Pass, appropriately priced, to cap monthly travel expenditure for eligible adults.

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For more details, go to Chapter Six: Fare adjustment formula, page 50

A more responsive fare formula

The general formula remains as
Price Index – Productivity Extraction

	cCPI +	WI +	EI
Price Index	The **core Consumer Price Index** excludes costs for private transport and accommodation.	The **mean Wage Index**, which tracks manpower costs, is retained.	A new **Energy Index** component tracks fuel costs of diesel and electricity for operating buses and trains.
Productivity Extraction	The value is set at 0.5% and valid for the next five years (2013 to 2017). 50% of the PTOs' average productivity gains The current measure of productivity is value-add per employee, which measures the PTOs' efficiency in the use of their employees.		

The proposed fare formula is:

0.4 cCPI + 0.4 WI + 0.2 EI – 0.5%

Regular fare review exercises

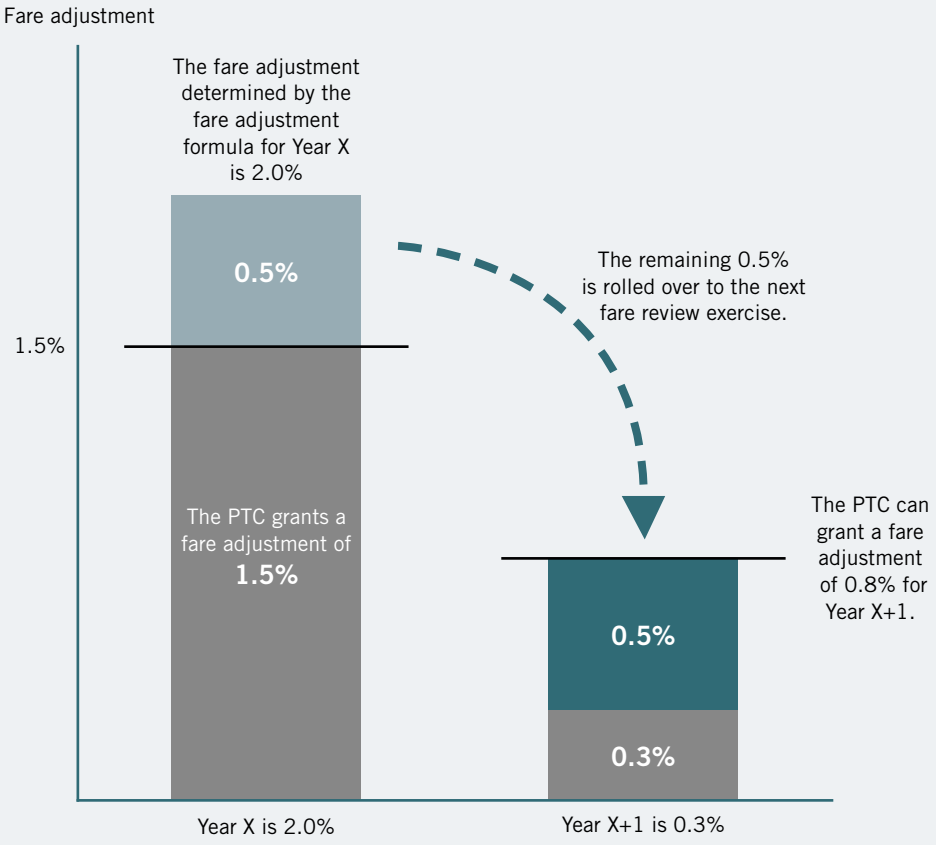
The Public Transport Council should carry out fare review exercises annually.

A flexible mechanism

For more details, go to Chapter Seven: Fare review mechanism, page 62

A roll-over mechanism allows the PTC some flexibility to vary the fare adjustment quantum granted at each fare review exercise, or to defer to the next exercise, to balance the safeguarding of commuter interests and the long-term viability of the PTOs.

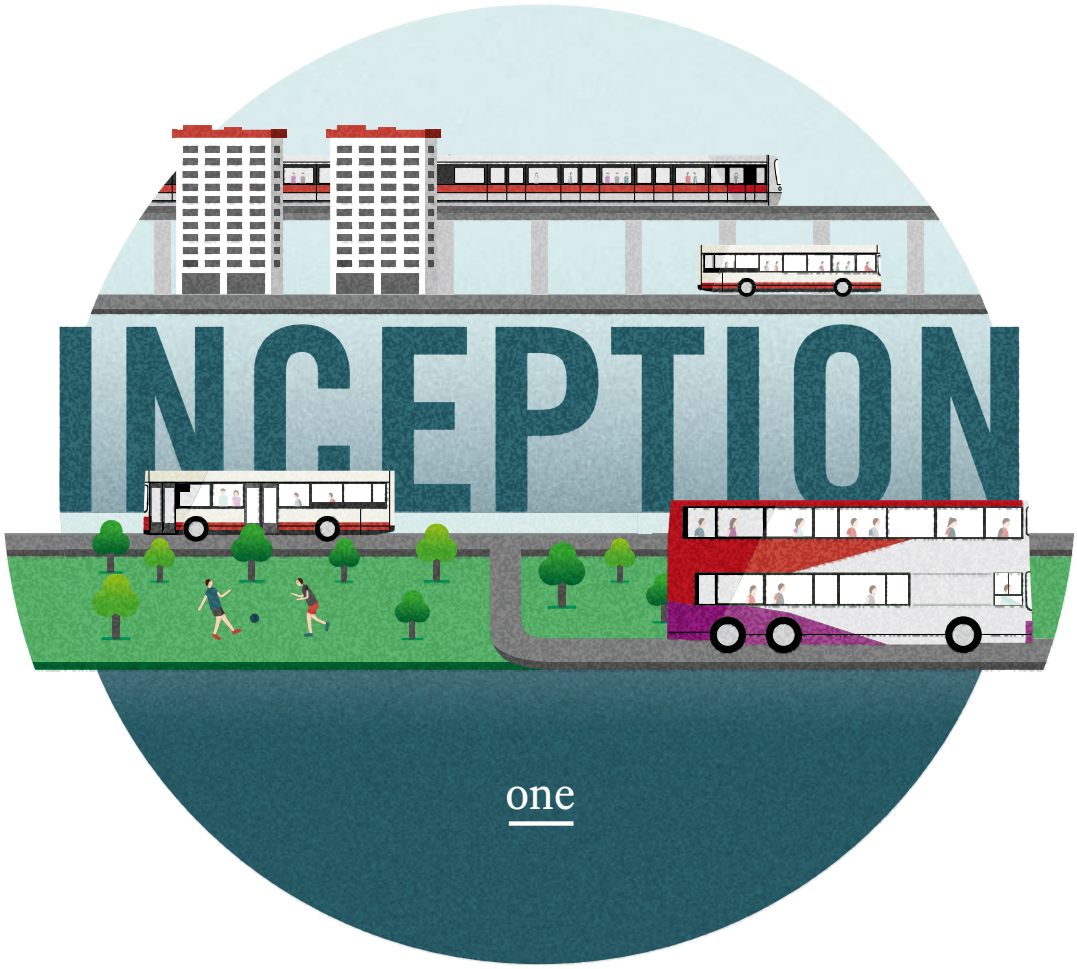
Here is an illustration of how the roll-over mechanism works. Please note that the figures shown below are just examples for illustrative purposes only. These figures do not represent any criteria or ceiling for the roll-over mechanism.



In Year X, the fare adjustment formula determines a fare cap of 2.0%. The PTC decides to grant a fare adjustment of 1.5%. The remaining 0.5% is rolled over to the next year.

In Year X+1, the fare adjustment formula determines a fare cap of 0.3%. In total, the PTC can decide to grant a fare adjustment of up to 0.8%.

The fare adjustment granted for Year X+1 will be capped at 0.8%.



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AT A GLANCE

The Fare Review Mechanism Committee was formed in June 2012 to review the public transport fare review mechanism. The Committee comprised diverse stakeholders.

During the Budget Debate in March 2012, Minister for Transport Lui Tuck Yew asked Mr Richard Magnus, former Senior District Judge, to chair a committee to undertake a review of the current public transport fare review mechanism.

On 4 June 2012, a Committee termed the Fare Review Mechanism Committee (FRMC) – comprising representatives from academia, the Consumers Association of Singapore (CASE), grassroots, labour movement, as well as the people and private sectors – was formed to review as well as propose improvements to the current fare review framework and fare adjustment formula for the Government's consideration. The FRMC convened its first meeting on 4 July 2012.

THE FARE REVIEW MECHANISM COMMITTEE

CHAIRMAN

Mr Richard Magnus
former Senior District Judge

MEMBERS

Mr Abdullah Shafiie Bin Mohamed Sidik
Chairman of the Siglap South Community Club Management Committee and Joo Chiat Constituency Sports Club

Associate Professor Vincent Chua,
Director of Centre for Applied Research, UniSIM

Mr Colin Lim
former Group Director (Vehicle and Transit Licensing), Land Transport Authority [Member of the FRMC from 4 June 2012 to 12 August 2012]

Ms Lim Huay Chih
Director, School Planning and Placement Division, Ministry of Education [Member of the FRMC from 11 March 2013]

Mr Low Teo Ping
Board Member, National Volunteer and Philanthropy Centre

Mr Mohd Rasi Bin Taib
President, National Transport Workers' Union

Mr Muhamad Imaduddien
Council Member, National Youth Council

Professor Phang Sock Yong
Professor, School of Economics, Singapore Management University

Professor Euston Quah
Head, Division of Economics, Nanyang Technological University

Mr Seah Seng Choon
Executive Director, Consumers Association of Singapore

Mr Richard Sim Hwee Cher
Honorary General Secretary, National Council of Social Service

Mr Karmjit Singh
Chairman of Chartered Institute of Logistics and Transport (CILT), Singapore

Ms Tuty Norashikin
Vice Chairman, Tampines West Youth Executive Committee

Mr Yeo Teck Guan
Group Director (Public Transport), Land Transport Authority [Member of the FRMC with effect from 13 August 2012]

TERMS OF REFERENCE

The Committee's Terms of Reference are:

a. The Committee shall review the effectiveness of the current fare adjustment formula, and propose improvements to the formula and overall framework for fare adjustments as appropriate.

b. The Committee shall review existing public transport concession schemes and propose improvements or new schemes to benefit a wider group of commuters, including the low income group and persons with disabilities.

c. The revised fare review framework should balance keeping public transport fares affordable with the long-term viability of the PTOs, and should incentivise PTOs to be efficient and encourage productivity improvement.

d. The Committee shall, in its review, ensure that the views of key stakeholders are adequately represented.

SCOPE OF REVIEW

The Committee covered the following areas in its review of the current fare review framework:

a. Concessions;

b. Affordability of public transport fares;

c. Fare adjustment formula; and

d. Fare review mechanism.

The Committee has comprehensively reviewed all existing fare concessions in public transport to identify gaps present in the system, and made a series of wide-ranging recommendations on new schemes and adjustments to existing schemes to improve fare affordability for commuters.

The Committee has also examined the strengths and weaknesses of the current framework, and recommends improvements to the fare adjustment formula and fare review mechanism so as to bring about benefits to commuters in terms of affordability, whilst maintaining the long-term sustainability of the public transport industry. The Committee has proposed some guidance on areas such as the fare review exercise frequency and application of the fare adjustment formula for the PTC to take into account during future fare review exercises.

ROLE OF THE PUBLIC TRANSPORT COUNCIL

The PTC was set up on 14 August 1987, under the Public Transport Council Act (Cap 259B), as an independent body to regulate bus services and public transport fares. In regulating bus and train fares, the main objective of the PTC is to safeguard public interest by keeping fares generally affordable while ensuring the long-term financial viability of the PTOs. The PTC does not regulate taxi fares, which have been deregulated since 1 September 1998.

AT A GLANCE

The current fare review framework has benefited commuters by keeping public transport fares affordable – the framework caps the fare adjustment, and small, regular fare adjustments have been made based on the fare adjustment formula since it was implemented in 2005. With significant changes to the public transport landscape, it is timely for the Committee to review the fare review mechanism to balance the public transport industry's long-term financial viability and keeping fares affordable for the public.

NOTE FROM THE CHAIRMAN

Both the Government and the PTOs have shared responsibilities: Providing optimal service performance of our public transport system, easing congestion, providing seamless connectivity, and ensuring orderliness for the commuters who use the transport system.

These matters of safety, service performance, easing congestion, new financing models, infrastructure planning and the business structure of public transport are not within the purview of the Fare Review Mechanism Committee. Other agencies are already working together to make our public transport even better.

CURRENT PUBLIC TRANSPORT FINANCING FRAMEWORK

The current financing framework for the public transport system is based on the concept of partnership.

Under this framework:

The Government plans and provides the transport infrastructure.

The Public Transport Operators (PTOs) provide public transport services to commuters under the regulatory oversight of the Land Transport Authority (LTA) and the Public Transport Council (PTC).

Commuters pay public transport fares, which help cover the operating costs of the PTOs.

For the framework to be sustainable over the long term, public transport fares have to be revised regularly to adjust to justifiable cost increases. This is necessary if the PTOs are to generate sufficient revenue to cover their operating costs and implement sustainable asset replacement and growth plans. However, as public transport is an essential service, fares also need to be regulated to ensure that they are generally affordable to the public, and to incentivise the PTOs to be cost-efficient.

OUTCOME OF THE CURRENT FRAMEWORK

Fare changes to-date

Since the current "Price Index - Productivity Extraction" fare adjustment formula was implemented in 2005, fare adjustments have been regular but small. The average annual fare increase approved by the PTC for bus and train fares from 2005 to 2011 is 0.4%[1]. This is significantly less than the allowable fare adjustment cap of an average of 2.0% per year (see Figure 1). Details of fare changes from 2005 to 2012 are shown in **Annex A**.

For more details on the fare formula, go to Chapter Six: Fare adjustment formula, page 50

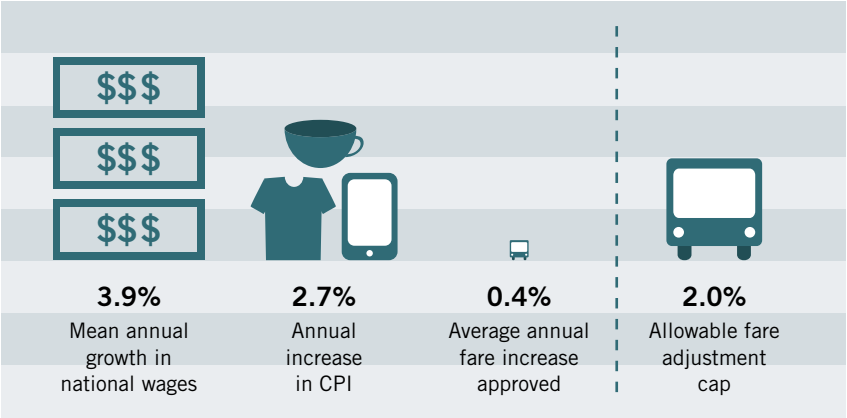


Figure 1: Actual fare increase per year has been much smaller than changes in Consumer Price Index (CPI) and wages (2005 – 2011)
(Source: FRMC)

The actual fare adjustment has been significantly lower than the mean annual growth in national wages, approximately 3.9% per year, and the annual increase in Consumer Price Index (CPI) – All Items, which is approximately 2.7% per year (see Figure 1). This shows that actual fare adjustments are lagging behind general cost increases. Comparisons of fare changes with the fare cap, CPI – All Items, and wages are shown in Figures 2 and 3.

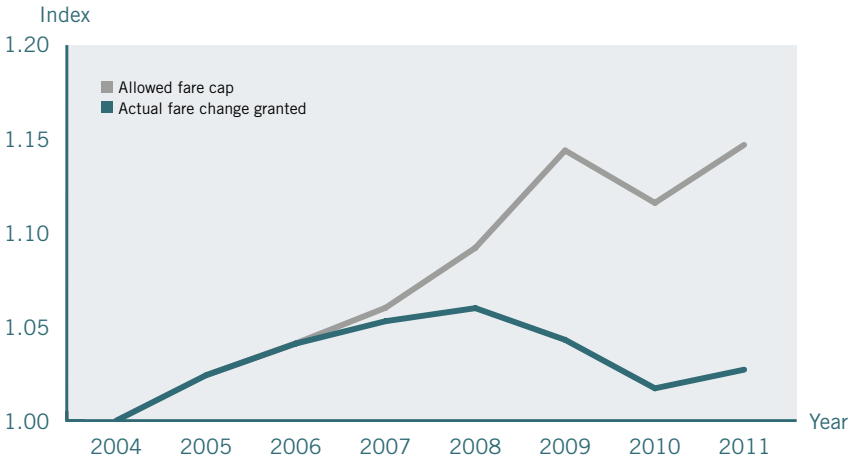


Figure 2: Actual fare change granted has been less than the allowed fare cap
(Source: FRMC)

[1] Annual figure calculated using the Compound Annual Growth Rate (CAGR).

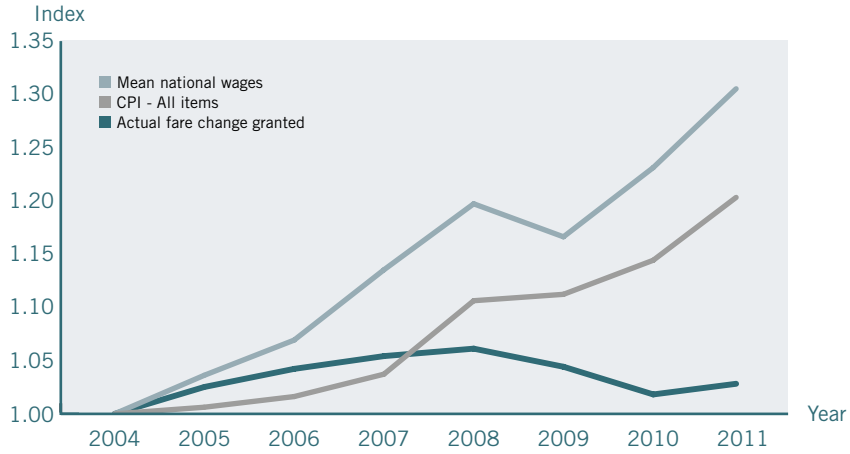


Figure 3: Actual fare change granted has been less than CPI and mean national wages
(Source: FRMC, Department of Statistics, Monetary Authority of Singapore)

Singapore's average public transport fares are much lower compared to that of other developed cities like Hong Kong, London and New York. A comparison of public transport fares across different cities is shown in **Annex B**.

COMMUTER SATISFACTION

On the whole, commuters continue to appear satisfied with the provision of public transport services. According to the 2012 Public Transport Customer Satisfaction Survey (PTCSS) conducted by UniSIM on behalf of the LTA, the commuter satisfaction level is high at 89%, although there has been a slight decrease since 2009. See Figure 4 for the survey results.

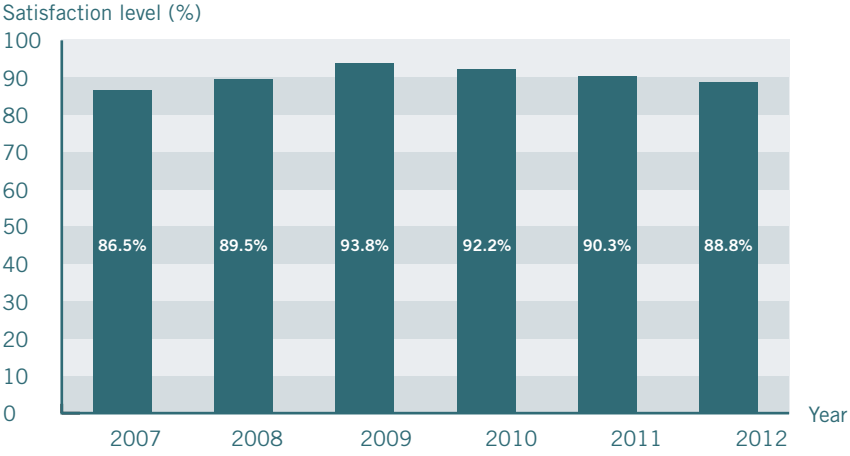


Figure 4: Overall public transport customer satisfaction level has remained high
(Source: Public Transport Customer Satisfaction Surveys, LTA)

THE COMMITTEE'S REMARKS ON THE ROAD AHEAD

While the current fare review framework has done well to benefit commuters by keeping public transport fares at very affordable levels (with general affordability improving from year to year), the public transport industry faces a declining financial situation. Information on the viability of the PTOs is shown in **Annex C**.

Since the last major review in 2004–2005, there have also been several significant changes to the public transport landscape, including the release of the Land Transport Masterplan (LTMP) in 2008.

The cost environment for the PTOs has changed significantly since the last major review in 2004–2005. In particular, energy costs now comprise about 23% of the PTOs' operating costs in 2011, as compared to about 16% in 2005.

Meanwhile, the demands for public transport services have also increased significantly over the last few years, with a large increase in ridership. This has led to greater crowding on the public transport system, especially during peak periods, and calls from the public for higher public transport service standards to reduce crowding and increase reliability and frequency. To meet such demands, the Government is building more rail lines and increasing the rail and bus capacity as quickly as it can.

Other structural changes in the public transport industry have taken place since the 2008 Land Transport Masterplan. Distance Fares was implemented in July 2010. In addition, a new rail financing framework was implemented in 2010 to foster greater contestability in the rail industry, with the Government owning the operating assets and tendering out the operation of new rail lines with a shorter licence period. The Government will also gradually open up the bus industry for greater competition to improve efficiency of bus operators.

For a summary of the changes, go to page 24

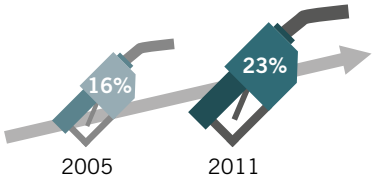
With these changes in the public transport industry as the backdrop, it is timely to review the fare adjustment formula and assess what changes are necessary to make the fare adjustment formula more reflective of the PTOs' underlying costs. The current mechanism will also have to be relooked to make sure that it can continue to keep fares generally affordable to the public and take care of the long-term financial viability of the public transport industry.

SIGNIFICANT CHANGES IN THE PUBLIC TRANSPORT LANDSCAPE
SINCE THE LAST MAJOR REVIEW IN 2004–2005

Changes in cost environment for PTOs

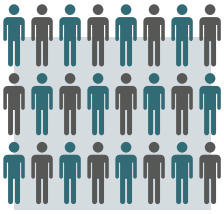
The cost environment for the PTOs has changed significantly:

- A steep rise in energy costs:



- Energy costs now comprise about 23% of the PTOs' operating costs in 2011, as compared to about 16% in 2005.

Increased demand for public transport services



A large increase in ridership over the last few years has led to greater crowding on the public transport system, especially during peak periods.

This has led to calls from the public for higher public transport service standards to reduce crowding and increase reliability and frequency.

To meet such demands, the Government is building more rail lines, and increasing the rail and bus capacity as quickly as it can.

The Government will also gradually open up the bus industry for greater competition to improve the efficiency of bus operators.

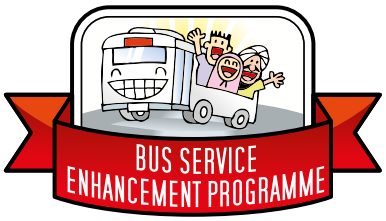
Distance Fares

- Launched in 2010 to charge fares based on the total distance travelled on buses and trains.
- Commuters can choose to take direct trips or transfers, which can be faster or cheaper journeys.

The system allocates the fare revenue collected to the respective operators.

New rail financing framework

- Implemented in 2010.
- To increase contestability in the rail industry, the Government will own rail operating assets and tender out the operation of new rail lines with a shorter license period.



Bus Service Enhancement Programme

- Launched in 2012 to improve bus service levels and bus network connectivity.
- A partnership between the Government and Public Transport Operators.
- Grows the bus fleet by 20% within five years.

The Downtown Line

The first rail line under the new rail financing framework

- Tender awarded to SBS Transit in 2011.
- Construction will be done in three stages, and is slated for completion in 2017.

BSEP

40

new services will be introduced.

800

buses will be added to the existing bus fleet.

three

AT A GLANCE

The Committee held a series of focus group discussions to get views from stakeholders such as commuters, academics/experts, the Public Transport Operators (PTOs) and Transit Link Pte Ltd (TransitLink) on a range of issues. For reality testing, a quantitative household survey was also carried out. A blog, email account, and postal box address were also set up to seek suggestions from the public, and to update the public on the Committee's progress.

REACHING OUT TO THE PUBLIC

The Committee believes that stakeholder participation is crucial to an effective review of concessions, the fare adjustment formula and fare review framework. Hence, the Committee set up a blog site (http://frmcommittee2012.sg) to communicate its plans and the progress of the review.

To reach out to the public, an email account and a postal box address were created and the details posted on the blog so that any member of the public could give his/her view on the review.

CHANNELS TO ENGAGE THE PUBLIC

- Blog
- Email address
- Postal box address
- Focus group discussions
- Household survey

MEETING FACE-TO-FACE

In July and August 2012, the Committee conducted a series of focus group discussions (FGDs) for deeper discussions with various stakeholder groups such as commuters, students, representatives from grassroots and unions, academics/experts, as well as the Public Transport Operators (PTOs) on how the fare adjustment formula and the fare review framework could be improved. In March 2013, the Committee met with commuters, including representatives from the student groups, the grassroots, and voluntary welfare organisations for more feedback on concession schemes and fare affordability.

Commuters | Academics/ Experts | PTOs | TransitLink | Other representatives

The Committee was heartened by the active participation of the stakeholders.

The FGDs provided a platform for the Committee to gather views and to discuss possible improvements on concession schemes and the fare review mechanism. The Committee was heartened by the active participation of the stakeholders. The feedback and suggestions received by the Committee from the FGDs can be broadly grouped into the following areas:

a. Affordability of public transport fares;

b. Price cap regulation;

c. Fare adjustment formula; and

d. Fare adjustment frequency and roll-over mechanism.

VOICES, A SUMMARY

Key suggestions from participants include:

a. Government-funded concessions for persons with disabilities and low income workers;

b. Lower fares for tertiary (especially polytechnic) students and senior citizens; and

c. More contributions from the PTOs to the Public Transport Fund.

Fare adjustment formula

Both the commuter group and the academics/experts group suggested replacing the CPI - All Items component with core CPI (which excludes accommodation and private road transport costs). Both groups agreed that extenuating circumstances such as prevailing economic conditions should be considered when applying the fare adjustment formula. In addition, each of the groups noted the following:

Commuters: They noted that steep increases in energy costs have affected PTOs in recent years. The actual fare adjustments have also been much lower than general cost increases.

Academics/Experts: They suggested that the fare adjustment formula be reflective of the cost of providing service and include an energy cost component, while the Productivity Extraction component should remain. They agreed that the fare adjustment formula should be based on a price-cap model, rather than a "cost-plus" model, so as to incentivise PTOs to be efficient and to share such efficiency gains with the commuters.

The PTOs: Both SMRT and SBS Transit proposed adding an energy cost component to the formula. SMRT also proposed an alternative of Government subsidies for fuel and electricity to help PTOs handle uncontrollable spikes in energy prices.

SMRT suggested removing the Productivity Extraction component, while SBS Transit proposed replacing the Productivity Extraction component with a profit-sharing mechanism. SBS Transit also proposed an "Additional Adjustment" component to account for structural changes in cost or revenue due to Goods and Services Tax, new vehicle standards and other regulatory costs. Both PTOs preferred a "cost-plus" fare adjustment formula.

Fare adjustment frequency and roll-over mechanism

The academics/experts group suggested a trigger mechanism for fare adjustments, instead of having a fixed frequency (e.g. annually). However, both SMRT and SBS Transit suggested that, instead of a trigger, the fixed frequency should remain but with a built-in roll-over mechanism so that the decision to adjust fares could be made regularly without compromising on commuters' and PTOs' interests.

Affordability of fares

There is wide agreement that public transport fares are affordable to the majority of commuters; however, low income workers and retirees with no income need more help to cope with fare adjustments.

Other issues

Both the commuter group and the academics/experts group noted service quality as being important to making public transport attractive. However, they could not reach a consensus on whether to incorporate service quality in the fare adjustment formula, as they also noted the merit of keeping fare adjustments separate from service quality regulation.

Both the commuter group and the academics/experts group felt that the fare adjustment formula should be explained more clearly to the public.

HOUSEHOLD SURVEY ON FARE CONCESSIONS

From June to August 2013, the Committee conducted a quantitative household survey to validate the feedback and suggestions gathered. This survey was to provide a reality check on some of the Committee's key considerations by testing them out with a representative group of the Singapore population. About 4,600 individuals from various types of housing profiles, statistically representative of Singapore's population distribution, were surveyed.

The individuals were polled on the following issues:

a. What are the additional concession schemes to be given preference or priority for implementation? (respondents selected a maximum of five out of seven listed concession schemes)

b. Who should bear the cost burden for more or better concession schemes?

c. What is an acceptable quantum of fare increase to support more or better concessions if these will be funded through cross-subsidy from full fare paying commuters?

d. Are our current public transport fares affordable?

◀◀◀
For more details on new concessions, go to Chapter Four: More concessions, page 34

Preference or priority for more or better concessions

Of the listed seven concession schemes, three were clearly ranked highly in terms of priority – concessions for low income workers (LIW), concessions for persons with disabilities (PWD), and monthly concession passes (MCP) for senior citizens – with more than 75% of respondents selecting for each of these. This clearly shows a strong preference that assistance for the underprivileged and the elderly is accorded with top priority. Table 1 shows the results.

The next tier of concession schemes preferred by the respondents (over 40%) are free travel for children under 7 years old, lower MCP prices for polytechnic students (compared to those for university students) and a monthly travel pass (MTP) for the adults, i.e. the full fare paying commuters.

Extending the eligibility of student concessions to include students in private institutions and commercial schools was ranked the lowest priority.

Ranking	Concession Scheme	Percentage of respondents
1	**New concessions for LIWs**	80.2%
2	**New concessions for PWDs**	78.4%
3	**Monthly concession passes (MCPs) for senior citizens**	75.3%
4	**Free travel for all children under 7 years old (no height requirement)**	53.0%
5	**Lower the prices of polytechnic student MCPs to be less than university students**	47.8%
6	**Monthly Travel Pass (MTP) for adults**	42.1%
7	**Extend MCPs to students who study in private institutions and commercial schools**	34.7%

Table 1: Clear preference or priority for concessions for LIW and PWD, and monthly concession passes for senior citizens
(Source: FRMC)

Funding the cost of concessions

On funding the cost of concessions, a majority of respondents (6 in 10 or 60.7%) feel that this responsibility should be shared by both the full fare paying commuters and the Government. However, there is a sizeable group of respondents (3 in 10 or 31.3%) who feel that the Government, i.e. taxpayers, should pay for the cost of concession schemes (see Figure 5). Clearly, there is an expectation for the Government to play a larger role in providing more for commuters, either through partnership with the PTOs or for the Government to do so alone.

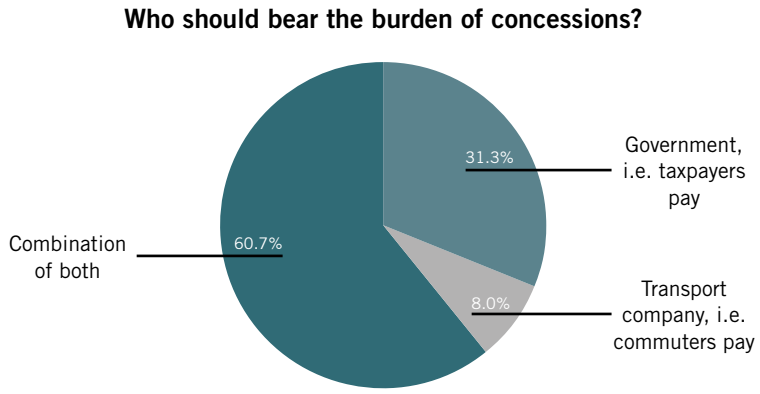


Figure 5: A majority prefer co-funding of concessions
(Source: FRMC)

Fare increase for more concessions

Amongst the respondents who feel that the commuters should bear some or all of the cost of concession schemes, a majority (7 in 10 or 65.4%) are supportive of additional fare increases so that more concessions can be provided to those in need. Of this majority, about half are prepared to pay up to 2 cents more in fares so as to help fund more concessions. The remaining half is willing to consider additional fares of up to 5 to 10 cents more (see Figure 6).

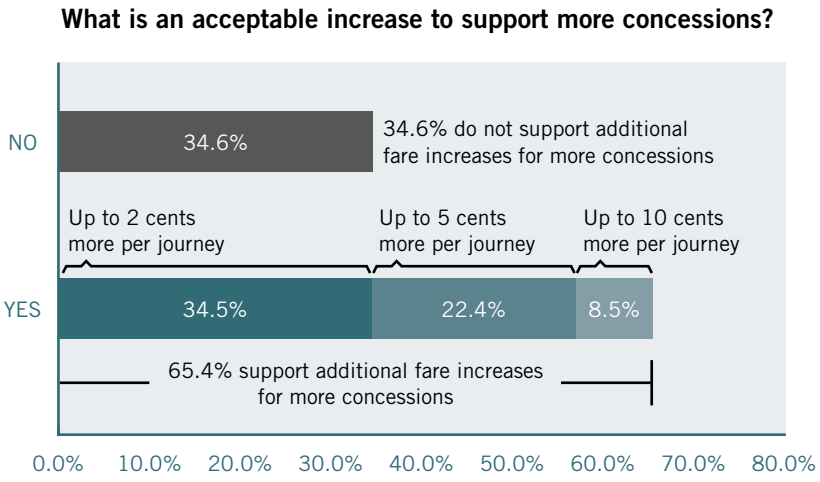


Figure 6: A majority are prepared to pay more fares to support more concessions
(Source: FRMC)

Fare affordability

In terms of fare affordability, a majority of respondents (6 in 10 or 61.2%) feel that our public transport fares are affordable. A small group (5.2%) would even pay higher fares in return for better service levels (see Figure 7). There is a sizeable one-third of the respondents (33.6%) who feel that fares are too expensive. For this group, which comprises mainly those with low income, those with lower education qualifications and the elderly, the Committee is particularly concerned and has made recommendations to provide more targeted assistance for them.

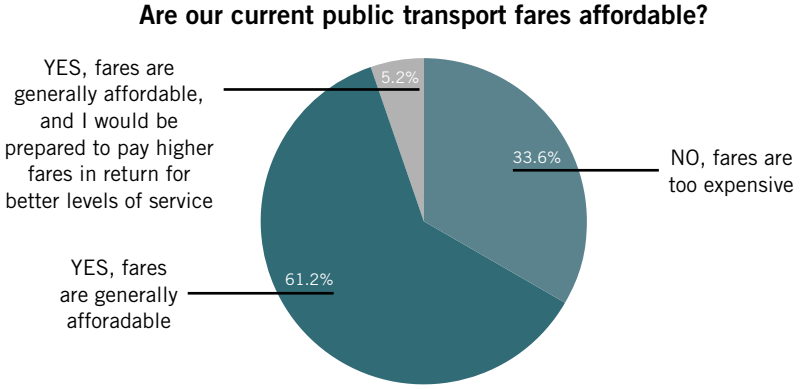


Figure 7: A majority feel that fares are affordable
(Source: FRMC)

CONCLUSION

Through the FGD sessions, the Committee gained a deeper understanding of the perspectives and views of various stakeholder groups. This has helped the Committee to focus on stakeholders' needs and concerns that are within the scope of this review. All feedback and suggestions received were considered carefully by the Committee and many of the recommendations in the report were developed from the Committee's deliberations on the suggestions and views received.

The Committee's deliberations also took into account the findings of the quantitative household survey to validate the feedback and suggestions gathered. Clearly, there is a strong expectation for the Government to do more for commuters in terms of concession coverage and fare affordability.

AT A GLANCE

Concession schemes come in two forms: concessionary fares and monthly concession passes. To help specific groups of commuters, the Committee recommends introducing new concession schemes to help the low income group and persons with disabilities. The Committee also notes that the current monthly passes could be improved to ensure better affordability for the group of heavy and frequent users of public transport. The Committee also recommends enhancing existing concession schemes for children under age 7, polytechnic students, university students and senior citizens so that fares remain affordable for these commuter groups.

OVERVIEW OF CURRENT CONCESSION SCHEMES

To keep fares affordable for specific groups of commuters, several concession schemes are already in place. These existing concession schemes are owned by the Public Transport Operators (PTOs). As scheme owners, the PTOs determine the concession schemes and the eligibility criteria. The concessionary fares are cross-subsidised by commuters paying full fares.

The PTOs jointly appointed Transit Link Pte Ltd (TransitLink)[2] as the administrator for all existing concession schemes. TransitLink provides services such as the issuance, replacement and refund of concession cards, and manages public feedback on all concession issues.

CURRENT CONCESSION SCHEMES

Currently, concession schemes come in two forms for these commuter groups:

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

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

[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.

NOTE FROM THE CHAIRMAN

The Committee was able to consider extending assistance to various specific groups of transport users under a Term of Reference that was added in February 2013. This signalled to us the Government's clear intention and readiness to review existing concessions and include groups of commuters previously not included under any concession scheme.

The Committee conducted three focus group discussions (FGDs) to get feedback on possible new concession schemes and improvements to existing concession schemes. Representatives from the grassroots, university and polytechnic student unions, TransitLink and associations for the disabled and special needs were invited to participate.

Some key points made during the FGDs include:

a. Concession schemes should be kept simple for practicality, for example, without creating too many tiers of fare discounts;

b. Determining the eligibility criteria should be balanced with implementation considerations;

c. Commuters should preferably have a choice of concessionary fares and Monthly Concession Passes (MCPs);

d. Pricing for MCPs should be set appropriately for a good take-up rate among commuters. The bus-only and train-only MCPs should remain to suit commuters' preferences, but the hybrid, i.e. combination of bus and train, MCPs should be priced lower than the sum of bus-only and train-only MCP prices;

e. Instead of coming up with a separate means testing for concession groups, available central databases should be used where possible; and

f. Schemes should be prioritised according to what will make a greater impact: either benefiting the highest number of commuters (e.g. low income workers) or benefiting groups that would gain the most (e.g. persons with disabilities).

THE COMMITTEE'S REVIEW OF THE CONCESSION SCHEMES

New concession schemes

Concession group	Currently	Reason for new concession scheme	New concessions scheme
Low Income Workers (LIW)	Low income workers receive public transport vouchers at each fare review exercise.	They depend on public transport to travel between their homes and workplaces, and will benefit from reduced fare expenditure.	The Committee recommends that the Government consider introducing concessionary fares.
Persons with Disabilities (PWD)	The PWD group pays full adult fares, although many of them, due to their disabilities, do not earn a salary or lack gainful employment.	Assisting this group is part of our social responsibility to extend a helping hand and make them feel more included in our society.	

Table 3: Summary of proposed new concessions

Concessionary fares for the Low Income Workers (LIW)

Public transport concession schemes, determined by the PTOs, have not been targeted at the low income worker group. Currently, low income workers receive public transport vouchers at each fare review exercise.

Singaporeans who are low income workers depend on public transport to travel between their homes and workplaces, and they will benefit from reduced expenditure on fares through concessions.

To better help such low income workers find jobs and stay employed by making their means of travel more affordable, the Committee recommends that the Government introduce concessionary fares for this group.

As public transport is a social good, we should aim to be inclusive as far as possible.

Concessionary fares for Persons with Disabilities (PWD)

Another group of commuters who deserve assistance and will benefit from a reduction in their fares are Singaporeans who are physically challenged, i.e. the PWD group. Assisting them is part of our social responsibility to extend a helping hand and make them feel more included in our society.

There are different levels of physical disabilities; some are obvious, while others are not. However, as public transport is a social good, we should aim to be inclusive as far as possible.

The PWD group currently pays full adult fares, although many of them, due to their disabilities, either do not earn a salary or lack gainful employment. To promote inclusiveness, the Committee recommends introducing concessionary fares for PWD.

VOICES

FEEDBACK FROM FGD PARTICIPANTS ON NEW CONCESSION SCHEMES

Low Income Workers (LIW)

The participants agreed that concessions should be given to low income workers. Some felt that even those who are unemployed should be helped. Other suggestions included basing the eligibility criteria on a household per capita basis, instead of the individual's income level, but recognised the practical issues of implementation. On the whole, participants noted that concession schemes should be designed to serve the targeted group, which are the low income workers, while exceptions (e.g. the unemployed) could be helped separately through other financial assistance schemes.

Persons with Disabilities (PWD)

Participants agreed that concessions should be given to PWD. Some advocated free travel or extending concessionary fares to caregivers accompanying PWD. Most felt that there could be more generosity in determining the eligibility criteria, as this group is already disadvantaged. However, participants agreed that there was a wide range of disability severity, some which could also be temporary (e.g. due to injuries that can be recovered from), and concessions should not be given to those with mild or non-incapacitating disabilities.

Enhancing existing concession schemes

The Child & Student Concession Scheme

The Committee noted inconsistencies in the treatment of concessionary fares for young children. Children are automatically granted concessionary travel when they start their primary school education. This is age-based: children receive their primary school concession cards generally in the year they turn 7 years old. However, before age 7, concessionary travel is based on physical criteria, i.e. free travel for children below 0.9m in height, while child concessionary fares apply for children taller than 0.9m, even though they have not started primary school education.

The Committee, therefore, recommends standardising the eligibility criterion for this group to be based on age. The Committee deems that all children below 7 years old, i.e. before entering primary school, should receive free travel regardless of height. For children below age 7 but taller than 0.9m, their parents could apply for child concession cards which would entitle their children for free travel. Children below 0.9m can continue to travel for free as per the current scheme, and do not need to be issued with concession cards to enjoy free travel.

The Tertiary Concession Scheme

Polytechnic students and university students are eligible for MCPs under the tertiary concession scheme.

Although polytechnic students are of similar age to students in Junior Colleges (JCs) and the Institutes of Technical Education (ITE), there are considerable differences in the benefits between the tertiary concession scheme and the secondary student concession scheme, which includes JC and ITE students.

Thus, the Committee recommends sub-dividing the tertiary concession scheme: one for polytechnic students and the other for university students. This is to bring existing discounts for polytechnic students closer to that of the secondary student concession group. This means that the tertiary MCPs should be separated to cater to two distinct sub-groups of polytechnic and university students.

NOTE FROM THE CHAIRMAN

Besides considering new concession groups, we also took the opportunity to review the current concessions for other commuter groups, and whether these should be tweaked or enhanced.

The Committee recommends lowering the prices of MCPs for tertiary students, with polytechnic students receiving more of a discount than university students, such that polytechnic MCPs are priced closer to secondary student MCPs.

The Senior Citizen Concession Scheme

The Committee recommends introducing a new MCP as an additional choice for senior citizens who are heavy and frequent public transport users, with the senior citizen MCP priced at a substantial discount to the proposed Monthly Travel Pass for adults.

◀◀◀ For more details on the proposed Monthly Travel Pass for adults, see next page: Helping heavy and frequent users of public transport

The Committee noted the wide range in the current discount for Senior Citizens. Depending on the distance of the journey, the discount can range from 25% for short trips to 55% for long trips. The Committee felt that there is scope to adjust the existing discount range to around 35% - 50% off the adult fares in the long term, benefiting many senior citizens, especially those who tend to make short trips, while those who make frequent long trips would not be worse off with the introduction of the senior citizen MCP.

Concession eligibility for Singapore Citizen (SC) students

Today's eligibility criterion for student concessions (including tertiary concessions) is based on the students' education institution. While most SC students enjoy concessionary travel, the Committee notes that there are students whose education institution does not qualify them for concessionary travel.

The Committee recommends that all SC primary and secondary students (including those who are home-schooled or studying full-time locally) be eligible for student concessions. This includes SC students at private institutions that are registered with the Council on Private Education (CPE), such as the privately-funded special education schools, and those that provide educational accomplishments deemed equivalent to primary and secondary education.

For tertiary students, the Committee recommends that all SC studying full-time for their first Bachelor's degree in local CPE-registered private institutions also be eligible for tertiary MCPs.

The Committee acknowledges that extending this concession eligibility for SC enrolled full-time in local private institutions would take time to be progressively rolled-out, as the administrative process will have to be worked out first.

Monthly Concession Pass (MCP) pricing

To facilitate optimum multi-modal, multi-transfer journeys, and with the introduction of distance-based fares, the Committee recommends that the pricing for hybrid MCPs should be lower than the sum of the bus-only and train-only MCPs.

Helping heavy and frequent users of public transport

The Committee recognises that adults who rely heavily and frequently on public transport for their daily commute would bear the brunt of any fare increases. The Committee noted that current MCPs are unattractive[5] and can be improved. To help address fare affordability for this broader group of high and frequent usage adult commuters, the Committee recommends having an appropriately priced adult Monthly Travel Pass (MTP), which will cap the monthly travel expenditure for this targeted group of adult commuters. The price of such MTPs should be appropriately set and reviewed by the Public Transport Council (PTC) as part of the regular fare review exercises.

[5] The existing EZ-Link Pte Ltd's Integrated Season Pass costs $190/month for unlimited train and bus trips. It also has the $170/month variant, which has a cap of four train trips per day and unlimited bus trips. EZ-Link Pte Ltd is licensed by the PTC to provide ticket payment services within the public transport industry.

VOICES

FEEDBACK FROM FGD PARTICIPANTS ON EXISTING CONCESSION SCHEMES

Tertiary Student Concessions

Some participants suggested that polytechnic students should enjoy the same concessions as JC/ITE students as they are all of the same age. Others felt that concessions should be priced the same for all students, including university students, as they felt that most students are not working and hence have no income.

Senior Citizen Concessions

There were mixed views on whether to review or maintain the senior citizen concession eligibility criteria. There were suggestions to lower the eligibility age to 55 years, or to have a second tier concessionary fare for older citizens, aged 70 and above, who should be given free travel.

There was also a suggestion that both concessionary fares and MCPs should be provided to give senior citizens a choice of which scheme better suits their needs. Participants also supported narrowing the discount range to 35% - 50%, as senior citizens are more likely to travel shorter distances.

Child Concessions

Participants felt that the criterion for free travel should be based on age (below 7 years old), rather than height.

Student Concessions

Currently, home school and private school students may apply for student concessions. Some participants felt that concessions should be given to all Singapore citizens, including Permanent Residents (PRs), as long as they are studying full time locally. Some felt that the criteria might need to be sharpened, e.g. for study up to first Bachelor's Degree. Some participants felt strongly that concessions should be limited to Singapore citizens only, i.e. excluding PRs and foreigners.

Adult Monthly Travel Pass (MTP)

Most participants felt that a monthly travel pass is useful to cap transport expenditure, but the pricing of such a pass is important. Some questioned the need to have a monthly pass just for heavy and frequent public transport users as this seemed to contradict the user-pay principle. There was also a suggestion for the pass to be restricted to Singaporeans only.

FUNDING THE CONCESSION SCHEMES

Funding new concession schemes

The Committee recommends that the Government fund these new concessions as part of the Government's overarching social policies.

Funding improvements to existing schemes

The Committee recommends maintaining the current principle of cross-subsidisation by commuters paying full adult fares.

This means that fares for adults may have to be higher so that more concessions can be granted for the benefit of other commuters. Although the recommended enhancements should ideally be implemented at the earliest juncture possible, we should be mindful of the impact to full fare paying adults. Hence the Committee notes that the various concession enhancements might need to be implemented gradually, in tandem with fare review exercises. The PTC may decide which concession, when, and how much concession to implement at each fare review exercise.

The Committee feels that having the Government and commuters share the funding of concessions promotes the spirit of partnership. This is supported by the quantitative survey findings gathered by the Committee.

For survey findings on the priority to improve the concessions schemes and funding of fares, go to Chapter Three, Household survey on fare concessions, page 30

CONCLUSION

The overall goal is to ensure fare affordability. With the proposed improvements – the introduction of new concessions and enhancements to the existing concessions – fare affordability should not deteriorate for the 2nd quintile income group households. Fare affordability for the 2nd decile income group households should improve over time.

Generally, the three broad ways to define concession groups are by age, such as children and senior citizens; by education type, such as those in primary and secondary schools and tertiary institutions; and by special needs groups, such as LIW and PWD.

The Government should consider funding concessions for new commuter groups such as LIW and PWD. For enhancements to existing concessions, the principle of cross-subsidy by full fare paying adults could continue to apply.

For more details on fare affordability for the 2nd quintile and 2nd decile income group households, go to Chapter Five: Fare affordability, page 44

AT A GLANCE

The revised fare affordability indicator is based on the monthly household expenditure of the respective household income group determined in the Household Expenditure Survey (HES). The affordability of public transport fares is currently tracked for the household income group representing the average public transport user profile, i.e. the 2nd quintile. To ensure that fares are affordable to more commuters, an additional group of lower income group, i.e. 2nd decile, should be tracked.

THE REVISED FARE AFFORDABILITY INDICATOR

To ensure that fares remain affordable, the Public Transport Council (PTC) uses an affordability indicator that tracks the annual affordability of public transport of a characteristic family that corresponds with the 2nd quintile income group households, which represent the average public transport user profile.

The Committee has reviewed and proposed that the fare affordability indicator be revised to be as follows:

$$\text{Proposed Affordability Indicator} = \frac{\text{Monthly household expenditure of the household on public transport}}{\text{Monthly household income of that household group}}$$

The numerator data on monthly household expenditure on public transport, i.e. train and bus fares, and the denominator data on monthly household income are obtained from the Household Expenditure Survey (HES), which is conducted every five years. For the intervening years, the change in monthly household expenditure is calculated using the fare adjustment granted by the PTC in each of the intervening years, while the household income changes are calculated using year-on-year mean national wage growth data released by the Department of Statistics (DOS).

The Committee is of the view that, from the commuters' perspective, this revised way of computing the fare affordability indicator is simpler and more meaningful than the current method of using a pre-defined characteristic family, as it may not be meaningful to construct such characteristic families for the different income groups for affordability tracking purposes. However, the focus remains to be on the trend of the fare affordability indicator over the years, instead of the absolute figure for a particular year.

Current affordability indicator	Proposed affordability indicator	Remarks
Based on the 2nd quintile characteristic family. Baseline HES data used included bus, train and taxis.	Based on 2nd 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 2nd quintile.	Based on 2nd 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)

MEASURING AFFORDABILITY

Keeping a price at a very low level does not necessarily mean that it is affordable to a person. This is because a person's ability to spend is also relative to how much income the person has. Simply put, affordability is measured as a ratio of expenditure over income. The ratio will get smaller – meaning affordability is improving – if the increase in expenditure is outstripped by income growth. Conversely, affordability will deteriorate if expenditure increases faster than income growth.

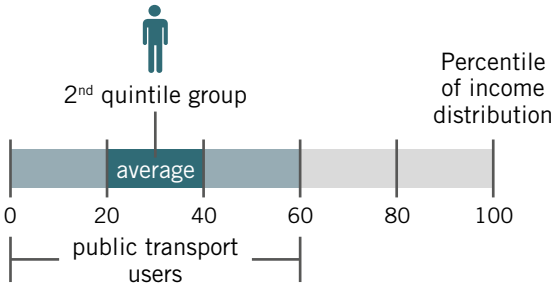
NOTE FROM THE CHAIRMAN

Our focus groups, as well as written and oral feedback tell us that our current fares are affordable. In addition, our fares are more affordable when compared with other cities that have an integrated bus and rail system similar to ours. However, the Committee felt it was important to study the issue closely so as to properly consider if we can do better for Singaporeans.

To the Committee, fare affordability has two components. For whom should fares be affordable? And how much do we spend on transport fares as part of our household income?

We propose to broaden and measure a larger group than the benchmark commuter group defined in the 2005 Fare Mechanism Review. This is so as to ensure and enhance fare affordability for commuters who need it most.

CONTINUE TRACKING OF 2ND QUINTILE INCOME GROUP HOUSEHOLDS



The Committee has reviewed the reasons for tracking the 2nd quintile income group households and found them to be still valid. The majority of households without private motor vehicles, or access to private transport, have a monthly income ranging from less than $1,000 to $4,999 according to the 2008 Household Interview Travel Survey. This income range still corresponds to the bottom 60% by household income distribution in the 2007/08 HES findings as shown in Figure 8 below:

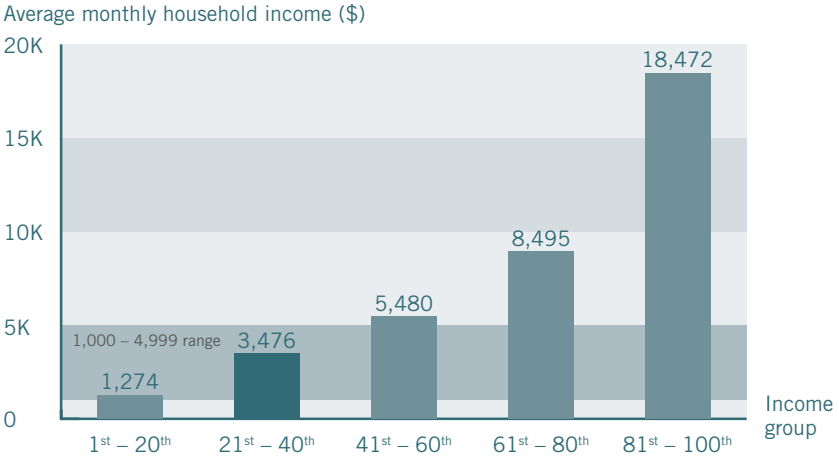


Figure 8: 2nd quintile, i.e. 21st – 40th percentile, is still relevant for tracking fare affordability
(Source: HES 2008, DOS)

Using the revised fare affordability indicator, the fare affordability of the 2nd quintile is shown in Figure 9 below. As can be seen, the cost burden of public transport on the low income households, as a proportion of their overall household incomes, has lessened over the last 10 years.

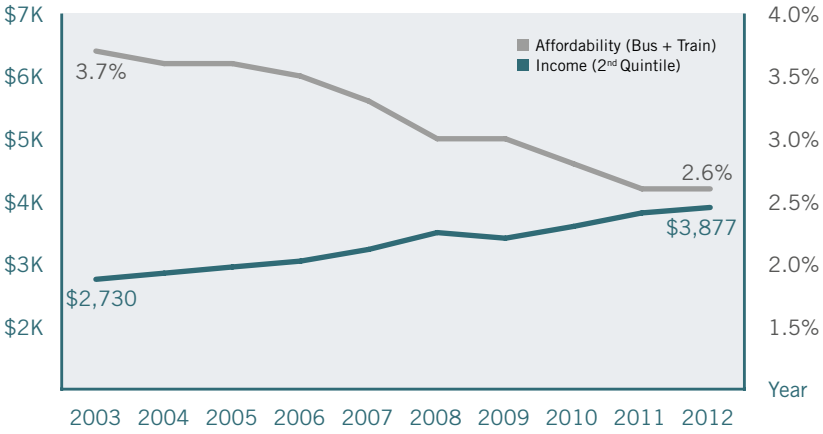


Figure 9: Income level and fare affordability of the 2nd quintile income group households have improved
(Source: FRMC, HES 2008, DOS)

A downward trend for the affordability indicator shows that fares have become more affordable. Commuters spend less on public transport as a proportion of income, as income increases.

For comparison with the previous fare affordability indicator computation, which used the characteristic family and HES baseline data that included taxi expenditures, the trends using both definitions of the fare affordability indicator are provided in Figure 10 below.

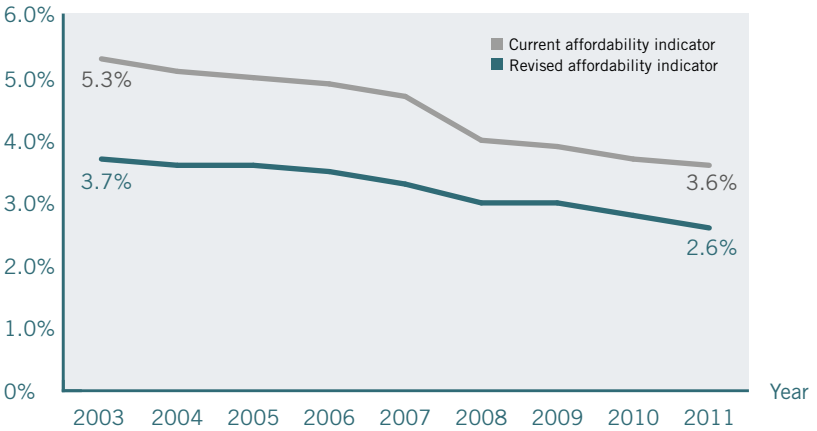


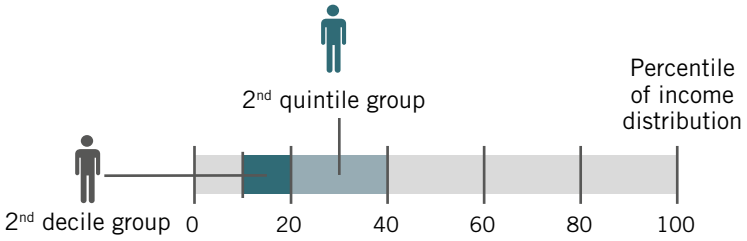
Figure 10: Proposed and current computations of fare affordability indicators show similar downward trend, i.e. fares are more affordable
(Source: FRMC)

VOICES

There was broad consensus among the commuters and academics that public transport is generally affordable. However, participants felt that low income workers and retirees with no income might face difficulty coping with fare adjustments. Others commented that the unhappiness over fare adjustments stemmed from service quality issues, rather than fare affordability concerns.

The commuter group participants also commented that the focus of any fare adjustment should be affordability, even though they felt that the PTOs should not be deprived of fare adjustments to cope with rising costs. Beyond the current tracking of fare affordability for 2nd quintile income group households, participants suggested similar tracking of lower income households, as any fare adjustment would have a larger impact on them.

INTRODUCE TRACKING OF 2ND DECILE INCOME GROUP HOUSEHOLDS



Given the prospect of regular fare increases under the new fare adjustment formula and fare review mechanism, the Committee is concerned about the effect this would have on fare affordability for the low income group. Today, the PTC monitors the fare affordability of the 2nd quintile group, and the Government has put in place targeted measures to help the bottom decile group, such as the distribution of public transport vouchers at every fare review exercise.

However, to capture a larger segment of public transport users, the Committee feels that it is important to also monitor fare affordability for the 2nd decile group (11th – 20th percentile) to ensure that fares remain affordable for all low income households. The Committee therefore recommends that the PTC also track the monthly expenditure of the 2nd decile group, in addition to the 2nd quintile group.

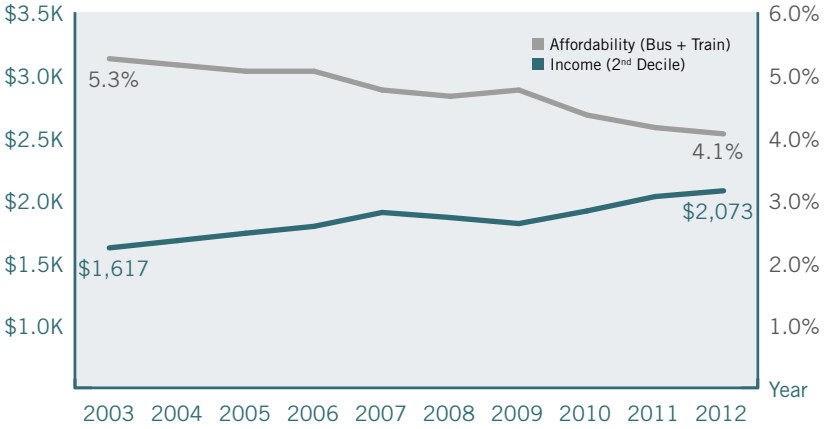


Figure 11: Income level and fare affordability of the 2nd decile income group households have improved
(Source: FRMC, HES 2008, DOS)

A downward trend for the affordability indicator shows that fares have become more affordable. Commuters spend less on public transport as a proportion of income, as income increases.

The Committee notes that the public transport fares are also becoming more affordable for the 2nd decile income group households (Figure 11), though the indicator shows that this group spends a higher proportion of household income on public transport as compared to the 2nd quintile income group households (Figure 9). However, with the new concessions targeted at LIW and enhancements to the existing concession schemes, the fare affordability for the 2nd decile income group households should gradually improve over time.

CONCLUSION

Our public transport system is the main mode of transport for the majority of the Singapore population. Thus, while the fares charged for public transport should cover the operating costs of PTOs, it is vital that public transport remains affordable and accessible to all. To ensure that fares remain affordable for a wider group of commuters, fare affordability will be tracked for the 2nd quintile income group households representing the average public transport users, as well as the lower income 2nd decile income group households.

NOTE FROM THE CHAIRMAN

It is important that we track fare affordability carefully so that we know how much targeted assistance should be granted to them. We suggest two markers for the PTC to monitor:

- The fare affordability for the 2nd quintile income group households should not deteriorate; and
- The fare affordability for the 2nd decile income group households should improve over time.

AT A GLANCE

The general fare adjustment formula is:
Fare Adjustment = Price Index - Productivity Extraction

The proposed fare adjustment formula adopts a core Consumer Price Index (cCPI), a new Energy Index (EI) and retains a mean Wage Index as components of the Price Index. The Productivity Extraction component is determined to be 0.5%, valid for the next five years (2013 to 2017).

The Price Index component aims to broadly reflect the prevailing cost structure of the Public Transport Operators (PTOs). The Productivity Extraction component allows commuters to benefit from the productivity gains of PTOs, in the form of lower fare increases.

THE FARE ADJUSTMENT FORMULA AS A PRICE-CAP MODEL

The fare adjustment formula places a cap on the fare adjustment allowed. After reviewing the rationale for the model and consulting academics/experts, the Committee recommends retaining the price-cap model as it motivates the PTOs to be cost-efficient, and is effective in capping price increases to ensure that fares remain affordable over the long term.

VOICES

Participants from the academics/experts group were generally supportive of the price-cap model but suggested ways to improve its application. One participant noted the divergence in past fare adjustments granted, and suggested a more rigid adherence to the fare adjustment formula in granting fare adjustments, if the fare adjustment formula is modified to better reflect the PTOs' cost structure.

There was also broad consensus in both the commuter group and the academics/experts group that the price-cap model provides incentives for the PTOs to be cost-efficient within the service standards set by the regulator, and this helps to ensure that fares remain affordable in the long term.

NOTE FROM THE CHAIRMAN

Taking care of affordability is important. But we cannot do so without getting the economics right. Retaining the price-cap model makes economic sense.

THE CURRENT FARE ADJUSTMENT FORMULA EXPLAINED

The current fare adjustment formula is:
Maximum Fare Adjustment = Price Index - Productivity Extraction
= (0.5 CPI + 0.5 WI) – 1.5%

	Price Index	Productivity Extraction
WHY this component was chosen in 2005	Broadly reflects the prevailing cost structure of the PTOs then.	Allows commuters to benefit from the productivity gains of the PTOs in the form of lower fare increases.
WHAT makes up this component	**0.5 CPI + 0.5 WI** Two macro-economic indicators are used to represent PTOs' costs of operation and manpower • CPI is the change in Consumer Price Index – All Items. • WI is the change in national average monthly earnings	**X = 1.5%, which is 50% of the average productivity gain by PTOs.** The reason for setting at half of the productivity gains is to retain some incentives for the PTOs to pursue productivity gains, as they will get to keep the other half.
MORE details	At the last review in 2008, manpower cost made up around half of the PTOs' total costs. The other half was made up of maintenance, fuel and energy costs, depreciation expenses, etc.	The value of "X" is determined using historical data and then set forward for a fixed period. The current value of "X", at 1.5% was derived in 2008 using the productivity figures from 2003 to 2007, and it is valid for a period of five years from 2008 to 2012.

Table 5: Summary of current fare adjustment formula components

REVIEW OF THE COST STRUCTURE

Based on the comparison of average costs as seen in Figures 12 to 14, the cost structure of the PTOs has shifted significantly between 2005 and 2011.

Fuel costs have increased disproportionately more than other costs. The cost of fuel for SMRT has risen to 22% of total cost in 2011, compared to 13% of total cost in 2005 (see Figure 12).

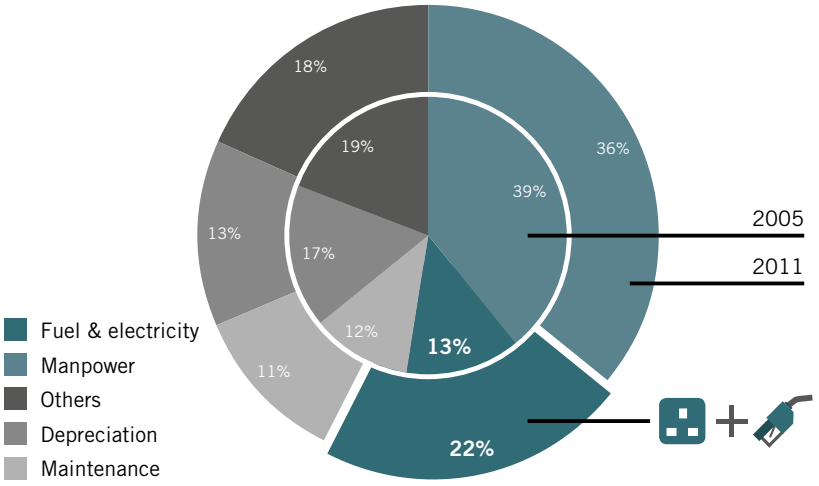


Figure 12: Proportions of SMRT's cost components have changed
(Source: PTC)

Similarly, the cost of fuel for SBS Transit has risen to 24% in 2011 from 18% in 2005 (see Figure 13).

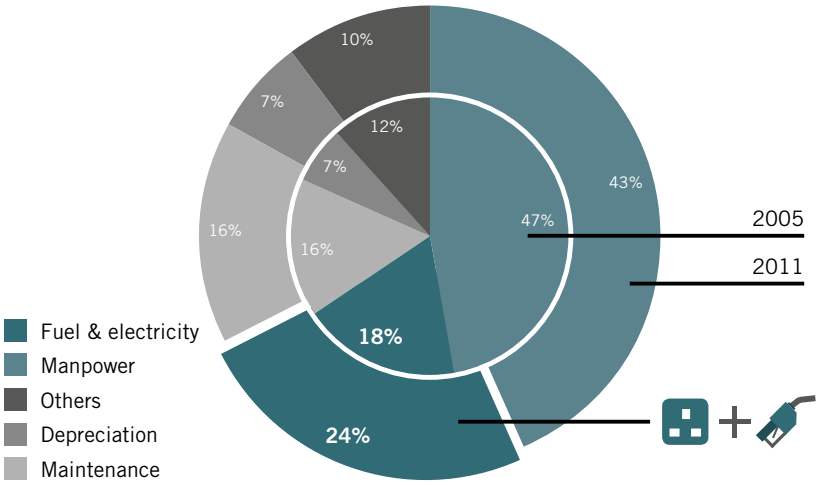


Figure 13: Proportions of SBST's cost components have changed
(Source: PTC)

The share of manpower cost to total cost has decreased from about 44% of the PTOs' cost in 2005 to about 40% in 2011, due to relatively higher increases in other cost components compared to manpower cost (see Figure 14).

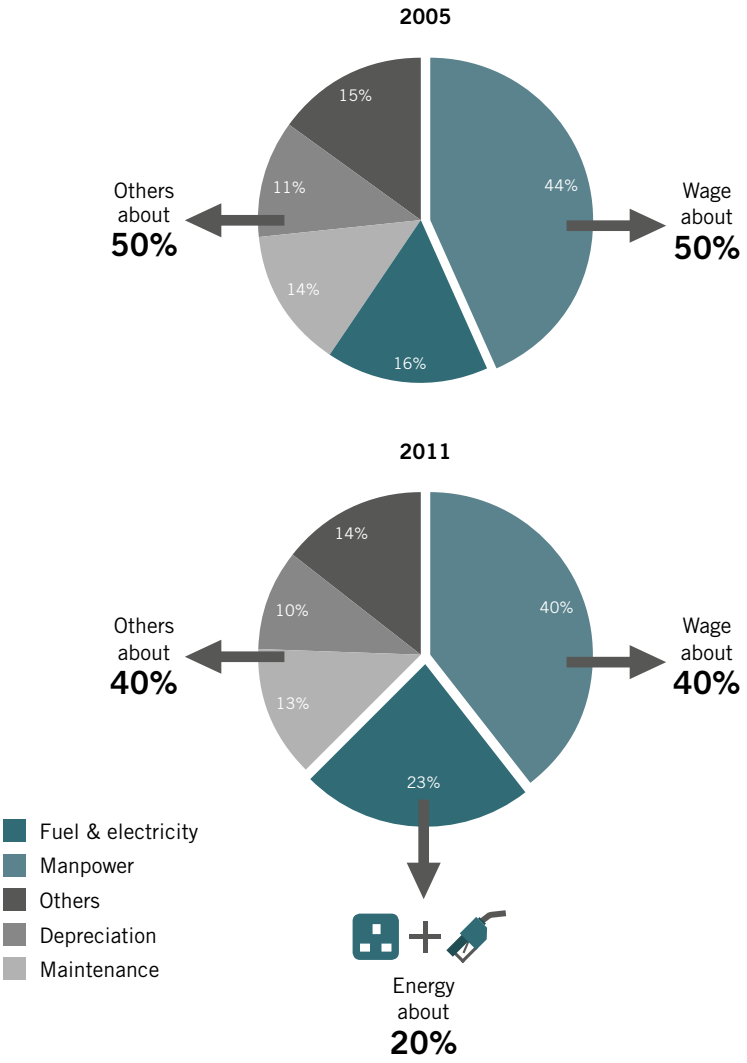


Figure 14: Proportions of industry cost components have changed
(Source: PTC)

THE PROPOSED FARE ADJUSTMENT FORMULA

The Committee recommends a new fare adjustment formula, to be valid from 2013 to 2017, as follows:

Fare Adjustment

= Price Index – Productivity Extraction

where **Price Index** = 0.4 cCPI + 0.4 WI + 0.2 EI
and **Productivity Extraction** = 0.5% (valid for 2013 to 2017)

Consumer Price Index component

Currently, the Consumer Price Index (CPI) used in the fare adjustment formula is that of CPI – All Items. During the focus group discussions (FGDs) with public transport commuters and academics, participants felt that the CPI included items that are not relevant to public transport such as accommodation and private transport. They felt that the core CPI, which excludes these items, should be used instead, as the influence of these items on public transport fares would be excluded (see Figure 15). The Committee agrees with them to relook the choice of CPI in the fare adjustment formula.

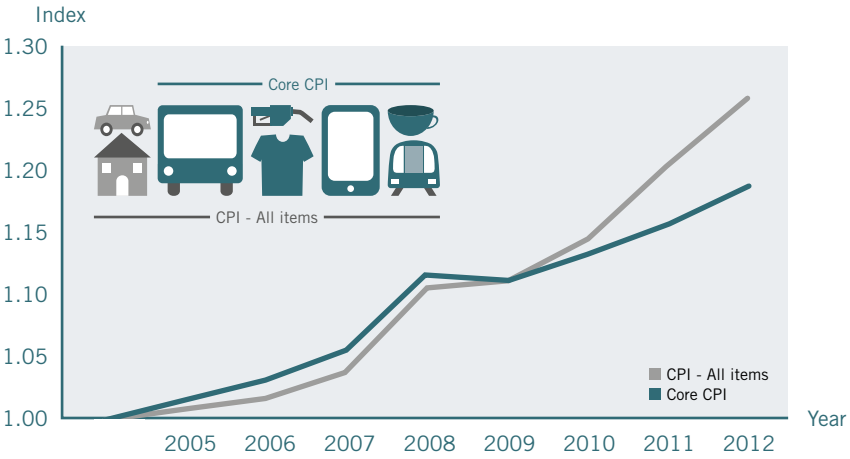


Figure 15: Core CPI has been less than CPI – All Items in recent years
(Source: Department of Statistics (DOS) / Monetary Authority of Singapore (MAS))

In general, changes in energy costs would flow through and be reflected in the CPI. On reviewing the weights of the electricity and diesel components for CPI – All Items and core CPI, it was found that the weights of such oil-related components were lower in the core CPI than CPI – All Items, as seen in Table 6 below. The Committee recommends that the core CPI be adopted in the fare adjustment formula to reduce the overlap with, or double counting for the incorporation of the Energy Index.

	CPI – All Items	Core CPI
Electricity	2.07%	3.03%
LPG	0.17%	0.25%
Gas	0.20%	0.29%
Petrol	2.43%	N.A.
Diesel	0.02%	N.A.
Total for oil-related	4.89%	3.57%

Table 6: Total weight for oil-related components is less in core CPI than in CPI – All Items
(Source: DOS / MAS)

VOICES

There were suggestions from the commuter group to exclude the costs of accommodation and private road transport from the CPI component of the fare adjustment formula as such costs are not relevant to the PTOs.

There was a similar suggestion from the academics/experts to replace the existing CPI – All items inflation with core CPI (which excludes the costs of accommodation and private road transport) to better reflect the PTOs' operating costs.

Several participants also felt that using a core CPI would minimise the overlap with the energy price component should it become part of the new fare adjustment formula.

Wage Index component

There have been some suggestions to consider the use of the median Wage Index (WI) instead of the mean WI[6] that is currently used. The Committee looked at the correlation of both wage indices with the PTOs' manpower cost and found that the mean WI has a closer correlation. In addition, the mean WI was found to be less volatile compared to the median WI. Thus the Committee recommends retaining the use of the mean WI in the formula.

New Energy Index component

The Committee recommends that the Price Index in the fare adjustment formula include a new Energy Index component to better represent changes to the PTOs' operation costs.

Previously, changes to energy costs were grouped as part of the CPI in the fare adjustment formula. However, in the last five years, energy prices had been volatile and had increased greatly. See Table 7 below for average cost of energy incurred by the PTOs. The increase in energy cost ranges from about 40% to 110%, which is greater than the 20% increase in CPI for the same period. Based on this, the CPI is not able to reflect the energy cost changes that have an immediate impact on the PTOs' operating costs.

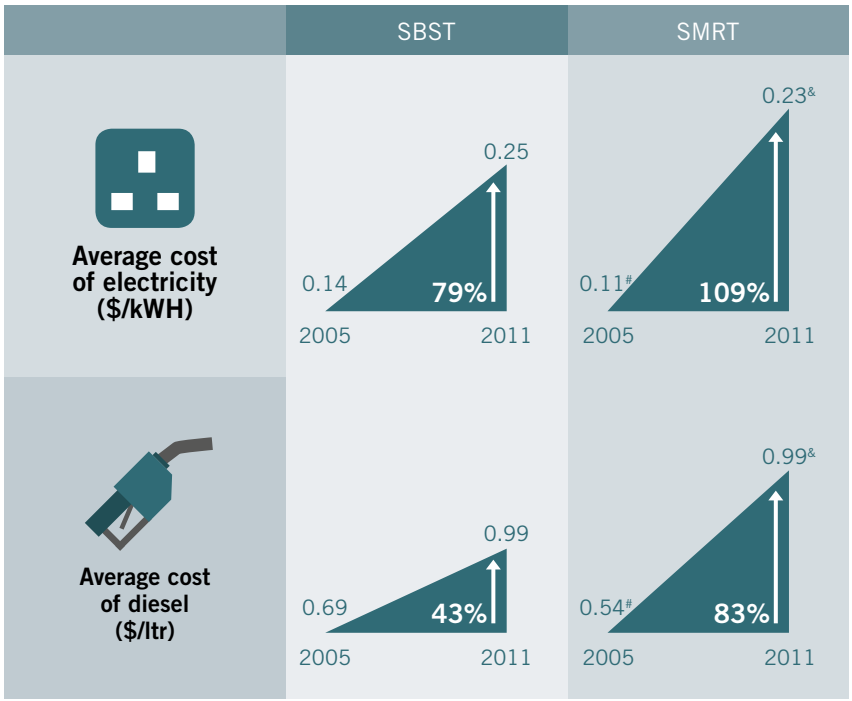


Table 7: Average costs of fuel and electricity incurred by PTOs have increased substantially

(Source: Compiled from PTOs' submissions to the PTC)

Based on SMRT's cost in FY 05/06, & Based on SMRT's cost in FY11/12

[6] The mean WI used in the fare adjustment formula includes adjustment for CPF contributions by the employer.

As there is significant divergence in the cost increases of energy compared to the other costs, the Committee recommends including a new Energy Index component in the fare adjustment formula to track the energy cost increases separately. As there are two types of energy being used for public transport, i.e. electricity for trains and diesel for buses, a composite index will need to be developed to track the cost changes of energy for the public transport industry.

Based on the current energy costs incurred by the PTOs, there is an approximate 46:54 split in electricity costs and diesel costs.

With more rail lines being built and operated, the Committee expects the split to trend towards 50:50 in the medium term. The Committee thus recommends a composite index to be created for the tracking of energy cost changes, with a 50:50 split between diesel (used for running buses) and electricity (used for running trains)[7]. The Committee recommends reviewing this split at the next fare formula review.

Given that the Energy Index will be incorporated in the fare adjustment formula, the Committee feels that the PTC could review the need for the current Fuel Equalisation Fund[8].

VOICES

A number of participants from the commuter group noted that the operators have been affected by steep increases in energy costs, especially diesel, in recent years. The academics/experts group felt that the Committee should consider including an energy price component in the fare adjustment formula to account for energy price fluctuations, which have an immediate impact on the PTOs' operating costs.

SMRT proposed adding an energy surcharge to the fare adjustment formula to account for the increasing impact of energy prices on operating costs. They suggested that if this was not possible, Government subsidies for fuel and electricity could be granted to help the PTOs deal with uncontrollable spikes in energy prices.

SBS Transit also proposed incorporating an energy price component in the fare adjustment formula given that energy cost had become a bigger part of the total operating costs in recent years.

[7] The type of diesel will be based on 10 parts-per-million (ppm) and electricity will be based on the Wholesale Electricity Price (WEP). According to the Energy Market Company (EMC) Singapore, the WEP is for contestable consumers who can take spot prices from the wholesale market.

[8] The Fuel Equalisation Fund is a mechanism put in place by PTC to mitigate the impact of sharp and transient spikes in fuel and electricity prices.

Productivity Extraction

The Committee looked at the current method of calculating productivity, as well as the sharing of productivity gains between the PTOs and the commuters. An equal sharing of productivity gains would incentivise the operators to continue looking for ways to improve productivity, while sharing these gains with the commuters. By fixing the productivity extraction for a number of years, this provides certainty for the PTOs.

Thus, the Committee recommends maintaining the existing method of calculating productivity and sharing of productivity gains equally. With this method, the Productivity Extraction is set at 0.5%, which is half of the average productivity achieved by the PTOs between 2007 and 2011. The Committee recommends that this value be valid for the next five years to tie in with the validity of the new fare adjustment formula.

Given that the Productivity Extraction is intended for the sharing of productivity gains in the "cost minus" fare adjustment formula, the value of productivity gains achieved by PTOs (used for setting the Productivity Extraction in future reviews of the fare formula) should never be negative. This ensures that any productivity losses in the public transport industry (a possibility especially in the context of PTOs incurring higher costs to meet higher regulatory and service standards) are not allowed to be passed on to commuters through the fare adjustment formula.

NOTE FROM THE CHAIRMAN

One way for the operators to cut their costs is to be more productive. We should incentivise them to be productive, and when they do achieve productivity gains, we want the gains to be shared with commuters. This is why we keep the productivity extraction in the fare formula.

An equal sharing of productivity gains would incentivise the operators to continue looking for ways to improve productivity, while sharing these gains with the commuters.

VOICES

There was consensus that the Productivity Extraction component should remain in the fare adjustment formula so that commuters could benefit from the operators' productivity gains. While participants saw the need for fare adjustments to keep pace with general cost increases, there was a suggestion that the PTC continue to consider extenuating circumstances when applying the fare adjustment formula.

From the PTOs, both SMRT and SBST would prefer the fare adjustment formula to be based on a "cost plus" formulation rather than the current "cost minus". SMRT suggested removing the Productivity Extraction component from the fare adjustment formula, as there would be fewer opportunities for productivity gains compared to earlier years. SBS Transit proposed replacing the Productivity Extraction component with a profit-sharing mechanism to benefit the commuters through public transport vouchers if a target return was achieved. Noting that actual fare adjustments in past years were usually lower than the fare adjustment formula, SBS Transit also suggested that the formula should be deterministic and applied annually.

The academics/experts commented that the components within the fare adjustment formula, as well as the weights assigned to each component, should be updated so that the formula is more representative of the changes in the cost of service provision.

Participants from the commuter group and the academics/experts group commented that the fare adjustment formula should be explained in a manner that is easier for the public to understand. For greater outreach, there were suggestions to leverage on social media and existing network of grassroots organisations.

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)

CONCLUSION

The fare adjustment formula places a cap on the fare adjustment allowed. It is a "cost-minus" formulation that takes into account the broad changes in the PTOs' operating costs as well as their productivity gains. To ensure that the formula remains relevant, the proposed fare adjustment formula is updated to adopt the core Consumer Price Index (cCPI) and include a new Energy Index (EI). The mean Wage Index (WI), as a component of the Price Index, is retained. The Productivity Extraction component is retained and updated based on the recent productivity gains by the PTOs. The formula will be valid for the next five years from 2013 to 2017.

AT A GLANCE

The Committee's recommendations for the fare review mechanism are:

- The Public Transport Council (PTC) should be allowed to defer fare adjustments to the next fare review exercise if there are extenuating circumstances, so that the cumulated fare adjustment quantum would be considered in that exercise.
- The fare review exercise should continue to be held annually, with limited exceptions.
- The PTC could consider adjusting the fare revenue allocation under the Distance Fares framework to allow more of the fare revenue to benefit the bus mode as compared to the train mode.
- Public Transport Operators (PTOs) should be required to contribute a portion of their fare adjustment granted to the Public Transport Fund so that there are more resources to help those most affected by the fare increases. The more profitable PTO should be made to contribute more.
- Penalties imposed on PTOs' service lapses should be channelled to the Public Transport Fund so that these flow back to commuters.

The fare review mechanism provides guidelines on areas such as the fare review exercise frequency and the application of the fare adjustment formula for the Public Transport Council (PTC) to consider during the fare review exercises.

CURRENT FARE REVIEW MECHANISM

Today, while the fare adjustment formula determines the maximum fare adjustment in a given year, the PTC retains the flexibility to grant part of the fare adjustment quantum yielded by the formula, or to reject it entirely, particularly when there are extenuating circumstances such as the following:

a. Adverse economic conditions; and

b. A significant deterioration in the overall affordability of public transport fares.

Under the current fare review mechanism, should the PTC deny fare increases or allow for less than the fare adjustment quantum, there is no "roll-over" allowed to the next fare review exercise. This means that whatever amount not granted is forfeited perpetually, not just for the particular fare review exercise.

Also, the PTC currently uses the PTOs' Return-on-Total-Assets (ROTA)[9] values as a reality check in the annual fare review exercise to ensure that the PTOs are not making excessive profits when compared to the returns of other industries with similar risk profiles.

The Committee has reviewed the current mechanism, taking on board the views gathered from the consultation with stakeholders.

FREQUENCY FOR FARE REVIEW EXERCISES

The rationale for having annual fare review exercises is to ensure that fare adjustments are responsive to operational cost changes, and to allow fare adjustments to be made in small and regular steps to mitigate the impact of fare increases on commuters. The Committee has reviewed this and found that the rationale of having regular fare review exercises remains valid. An annual exercise will allow adjustments to fare levels to be responsive to operational cost changes and, more importantly, be kept small so as to make the fare changes a little more palatable to commuters.

[9] **Return-on-Total-Assets (ROTA)** shows how much profit a company generates for every dollar of assets invested. Companies like the PTOs are asset-intensive, meaning they require huge investments in machinery or equipment to generate profits.

The Committee had considered having fare review exercises at longer intervals, such as biennial exercises. However, the Committee found that this could result in large jumps in fare adjustments as the Price Index can and does fluctuate sharply with abrupt economic cycles. The Committee feels that such sharp changes would not be in the interest of commuters. Thus the Committee is of the view that the fare review exercise should continue to be held annually.

VOICES

On the frequency of fare adjustment, some participants felt that the practice of annual fare review exercises should be retained, while others suggested a longer interval of two or even three years in between fare review exercises.

Participants from the commuter group commented that the fare adjustment formula should not be applied mechanically and prevailing economic conditions should be considered.

There was a suggestion from the academics/experts to establish a trigger mechanism to initiate fare adjustments, rather than adjusting fares on a fixed frequency.

To avoid the build-up of cost pressures, SMRT proposed automatic fare adjustments based on the fare adjustment formula. Likewise, SBS Transit proposed that the fare adjustment formula should be deterministically applied. Both PTOs viewed that the fare adjustment formula should provide business certainty and hence enable them to concentrate on improving service quality and operational efficiency to benefit commuters.

A FLEXIBLE MECHANISM

Under today's fare review framework, when the PTC does not grant the full fare adjustment quantum or rejects it entirely, the remaining fare adjustment quantum that is not granted is forfeited perpetually. By forfeiting the entire amount or part of it, the PTOs would not be compensated for their cost increases, as fare increases would be lower than cost increases. As a result, the financial viability of the public transport industry would deteriorate and the industry would eventually become unsustainable. The Committee feels that the longer term interests of commuters should also be safeguarded and assured as well, through ensuring a financially viable public transport industry.

Therefore, on balance, the Committee is of the view that the PTOs should be fully compensated for cost increases over the long term, given that productivity extraction is already incorporated in the fare formula. However, for the short term, the PTC should be allowed some flexibility to make the decision such that the impact of fare increases to commuters can be minimised.

Thus, the Committee recommends that the PTC be allowed to defer a fare review exercise to the following year if there are extenuating circumstances, such as poor economic conditions and high unemployment.

This means that the fare adjustment quantum deferred would be added to the fare adjustment quantum for the next fare review exercise. The cumulated fare adjustment quantum would be the new fare adjustment quantum for the PTC's consideration in the following year.

For an illustration of the roll-over mechanism, go to Highlights of recommendations, page 15

In addition, the Committee also recommends that the PTC be allowed to minimise the impact to commuters by:

a. Smoothening out any large fare adjustment quantum yielded by the fare formula over more than one fare review exercise; or

b. Rolling over the full amount determined by the formula if it is too small for practical reasons.

Similar to deferment of fare review exercises, any fare adjustment quantum not granted in a particular year due to such smoothening purposes or practical reasons would be rolled over to the next fare review exercise.

VOICES

SMRT commented that there was no provision for the roll-over of the fare adjustment quantum under the existing mechanism. Hence, in years when the full fare adjustment according to the formula was not granted, the remaining fare adjustment was perpetually forfeited. This resulted in mounting cost pressures, as actual fare adjustments were unable to keep pace with rising costs. In a similar view, SBS Transit also proposed to carry over the full fare adjustment quantum due to the suspension of the fare review exercise in 2012.

As a comprehensive hub-and-spoke public transport network evolves, the overall fare revenue collected under Distance Fares will shift from bus to trains.

◀◀◀
For more details on the fare changes to-date, go to Chapter Two, Outcome of the Current Framework, page 21

FARE REVENUE ALLOCATION

At each fare review exercise, besides deciding on the fare adjustment quantum to be granted, the PTC also decides on how the fare levels would be adjusted to produce the estimated increase in the PTOs' revenue.

The Committee noted that the Distance Fares framework (introduced in 2010) has resulted in more commuters making more transfers and taking shorter trips, and hence lower average fares for the PTOs, especially for bus trips.

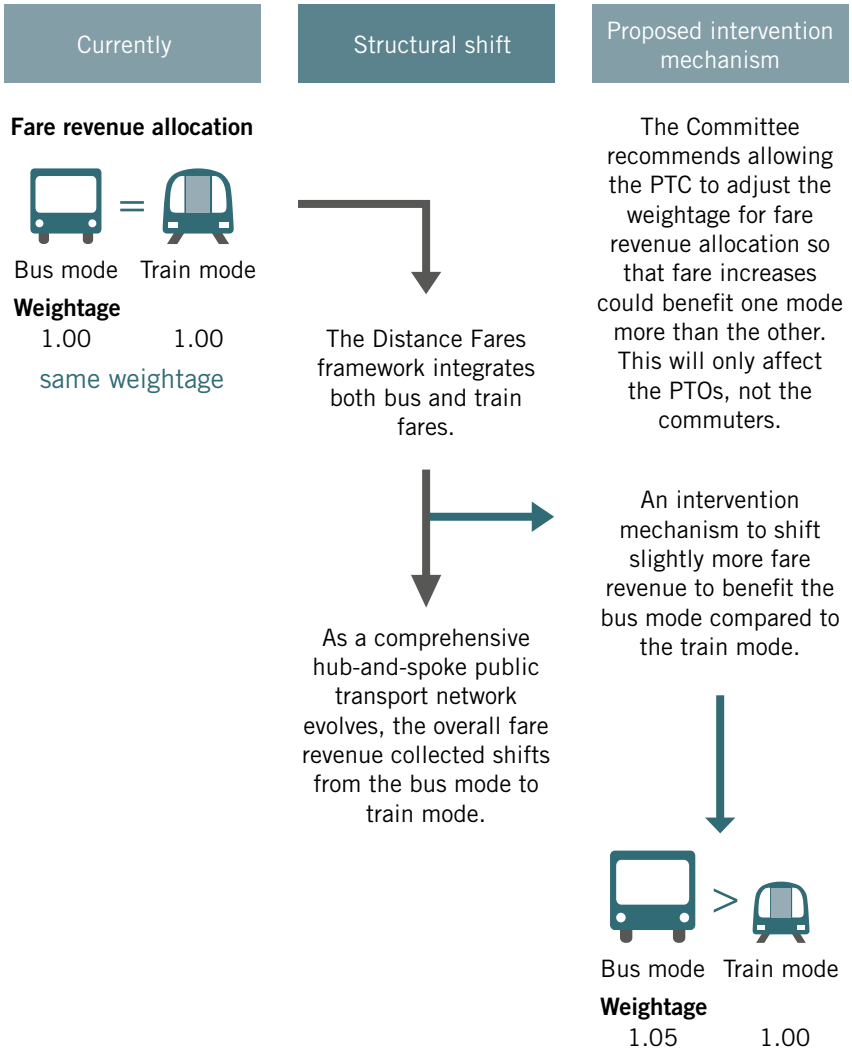
In recent fare review exercises, the actual fare increase granted by the PTC has been less than that determined by the current fare adjustment formula. This has had an adverse impact on the bus industry financials – the additional fare revenue did not fully compensate for cost increases in bus operations, affecting the financial performance of the PTOs adversely.

At the same time, air-con bus fares today are set at the same level as the train fares. As bus services do not have a dedicated right-of-way and are generally regarded as less reliable than train services, it may not be justifiable to raise bus fare levels above train fare levels to help bus operations cope with cost increases.

As a comprehensive hub-and-spoke public transport network evolves, the overall fare revenue collected under Distance Fares will shift from bus to trains. This is because more people will find trains a more viable transport option, and more bus routes will be restructured to perform more of a "feeder" role to connect to more rail lines.

In anticipation of this structural shift in the public transport network, the Committee felt that an additional intervention mechanism should be put in place for the PTC to adjust the revenue allocation between bus and train modes.

Thus, the Committee recommends that for future fare review exercises, the PTC could consider adjusting the setting of weights for revenue allocation under the Distance Fares framework. In this way, the PTC could allow the fare increase to benefit one mode more than the other if it is necessary for the long-term sustainability of the industry. For example, the PTC can set the weight for revenue allocation for bus mode at 1.05 (slightly higher than the current value of 1.00) while keeping the weight of 1.00 for train mode. This will shift slightly more fare revenue to benefit the bus mode as compared to the train mode.



Commuters, however, will not see any impact – there will not be any change in fares paid for such journeys, as this merely affects the back-end allocation of fare revenue collected.

The net effect is to provide a mechanism for the PTC to have the flexibility to grant a differentiated fare increase quantum to the bus vis-à-vis the train mode, by adjusting the weights set for revenue allocation for journeys that involve bus-train transfers. Commuters, however, will not see any impact – there will not be any change in fares paid for such journeys, as this merely affects the back-end allocation of fare revenue collected.

The Committee also recommends a general principle to be used when deciding on a change to the weights used. That is, when deciding on a change to the weights, the PTC should avoid a situation where the contributing mode ends up with a revenue decrease, i.e. being made worse-off when compared to not being granted a fare increase.

REMOVING ROTA AS A REALITY CHECK

◀◀◀ For more details on the PTOs' contribution to the Public Transport Fund, go to Mandating Contributions From PTOs to Help the Needy, page 69

The Committee has reviewed the use of ROTA as a reality check. It has deemed that, for the long-term viability of the public transport industry, it is better to allow the fare adjustment to be determined by the fare adjustment formula, consistent with the economic rationale of the price cap model.

Going forward, the Committee has also noted that in line with the Land Transport Masterplan 2008, the PTOs will become more asset-light as they will not be required to own operating assets, making the use of ROTA far less meaningful.

Taking into consideration the changes to the industry, and the recommended changes to the fare review mechanism that will require the PTOs to share gains by contributing to the Public Transport Fund (with the more profitable PTO contributing more), the Committee recommends to remove ROTA as a reality check on the PTOs, and to focus on the issue of fare affordability instead.

VOICES

A participant from the academics/experts group commented that incorporating a reality check through the operators' ROTA, in effect, caused the regulating mechanism to become more of a model based on rate-of-return considerations.

Another academic commented that using ROTA might not provide the right incentive to the PTOs. For example, PTOs could possibly "gold-plate" their asset costs just to lower their ROTA and justify a fare adjustment.

MANDATING CONTRIBUTIONS FROM PTOs TO HELP THE NEEDY

Currently, the PTOs voluntarily contribute to the Public Transport Fund when fares are adjusted. Using the Public Transport Fund, vouchers are given to the needy to help them cope with the fare increase. The Public Transport Fund is largely funded by the Government, with a small voluntary contribution by the PTOs.

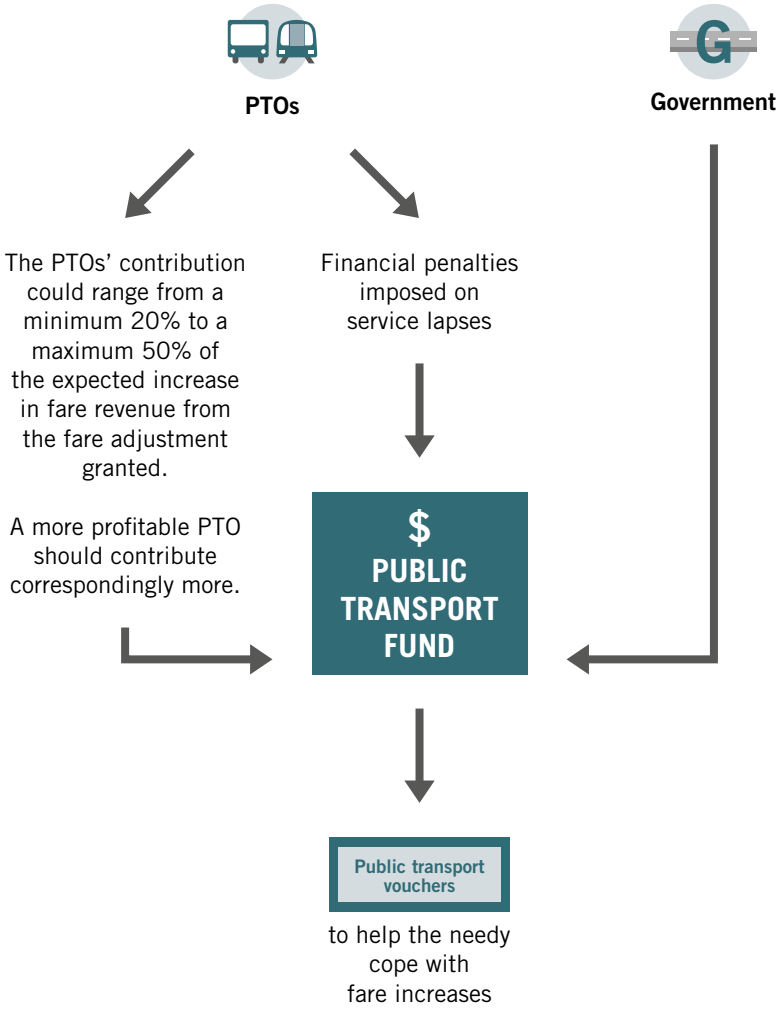
The Committee has reviewed this and felt that more resources should be systematically set aside to help those affected by fare increases. The PTOs should contribute more substantially as a reflection of "sharing" their gains with commuters, who are their social "shareholders". Thus, to ensure affordable fares for the low income group, the Committee recommends that the PTC mandates that PTOs contribute to the Public Transport Fund when there is a fare adjustment. The amount of contribution would be set during the fare review exercise and could vary depending on the PTOs' profitability. This way, the more profitable operator can share more of their gains with the commuters.

Service standards are regulated outside the fare adjustment formula and fare review mechanism. The PTOs could incur financial penalties for breaching such service quality standards. Several focus group participants felt that incorporating service standards into the fare adjustment formula would complicate decisions on whether or not to allow fare adjustments, and it would be better to allow the application of the fare adjustment formula to address cost changes in the operating environment.

Even as the Committee recognises commuters' concerns on service quality, it is of the view that service quality, though important, cannot be addressed solely through the fare adjustment formula given the inherent tension between service quality and costs. And while delivering service quality is under the control of the PTOs, and subject to regulatory oversight, many operating costs such as labour and energy costs are not. The Committee therefore feels that the issue of service quality can continue to be regulated outside of the fare adjustment formula.

The Public Transport Fund is largely funded by the Government, with a small voluntary contribution by the PTOs.

Providing more resources to the Public Transport Fund



To share gains with commuters, PTOs should be required to contribute a portion of their fare adjustment granted to the Public Transport Fund. In determining the contribution amount, reference could be taken from the prevailing PTOs' profitability. The Committee feels that all PTOs that are profitable should contribute a minimum amount of 20% of the fare adjustment they would receive to the Public Transport Fund, with more profitable PTOs correspondingly contributing more to the Public Transport Fund. As the amount to be contributed to the Public Transport Fund would have an effect on the PTOs' profitability, the Committee recommends that the contribution could range from a minimum of 20% to a maximum of 50% of the expected increase in fare revenue (due to the fare adjustment granted) for one year.

To further provide more resources for the Public Transport Fund, the Committee recommends that the Government continue to co-fund it with the PTOs.

In addition, to close the loop with commuters, the Government could consider mandating that all financial penalties collected due to service quality lapses be flowed to the Public Transport Fund so that the money can benefit commuters directly, in a form of "giving back" to the commuters. Separately, the regulatory agencies should also consider a performance-based incentive mechanism to motivate PTOs to outperform the required service standards, and increase the penalties for service quality lapses.

VOICES

Participants from the commuter group commented that the financial penalties imposed on operators for any service lapses were too low and that the Government should increase the quantum of the penalty. Some participants also commented that the fares and service quality could continue to be kept separate so as to allow the PTC and service regulators greater flexibility to exercise their powers in the interest of commuters.

CONCLUSION

The fare review mechanism provides the framework on which the PTC makes its decision on the fare adjustments. To allow fares to be adjusted regularly such that fares can remain affordable and the public transport network remains sustainable, annual fare review exercises are recommended.

A flexible mechanism includes:

- A roll-over of part or all of the amount yielded by the fare adjustment formula to the next fare review exercise; and
- Adjusting the fare revenue allocation at each fare review exercise.

To share gains, PTOs should be mandated to contribute to the Public Transport Fund to help the needy, and the more profitable PTO should be made to contribute more. To ensure more resources for the Fund, penalties imposed on service quality lapses could also be channelled to it. The Government should also continue to support the Fund.

eight

Fare increases have been kept small over the years. As these small fare increases are outstripped by income growth, fares have become more affordable for the majority of commuters. Commuters' overall satisfaction with the public transport is at 89%, according to the Public Transport Customer Satisfaction Survey (2012). Nonetheless, our engagement with stakeholders and household survey show that there is room to improve concessions further so that fares can remain affordable.

The Committee is satisfied that the price-cap model and the current fare adjustment formula have generally worked to keep public transport affordable. However, the public transport industry's financial situation has declined over the years and is currently not sustainable.

Thus, the Committee recommends specific improvements to the current fare review framework to improve the balance of safeguarding the commuters' interest and the sustainability of the public transport industry.

THE COMMITTEE RECOMMENDS:

More affordable fares for commuters

New and enhanced concession schemes

The Committee recommends that new concession schemes be introduced to help the low income group and persons with disabilities. In addition, the Committee recommends a more affordable monthly pass for heavy users of public transport to cope with their transport costs. Existing concession schemes can be enhanced to ensure fares are affordable for children below age 7, polytechnic students, university students and senior citizens.

Keeping a close watch on fare affordability

There is greater concern on public transport fare affordability for the low income group. The Committee therefore recommends that the PTC also track the monthly expenditure of the 2nd decile group (11th – 20th percentile), in addition to tracking the 2nd quintile group.

More responsive fare adjustment formula and flexible mechanism

A more responsive fare formula and sharing of productivity

The Committee recommends that the fare adjustment formula continue to be based on a price-cap model, and be modified to provide greater responsiveness to changes in the PTOs' operating costs as shown below:

Fare Adjustment =

0.4 cCPI + 0.4 WI + 0.2 EI – 0.5%

A new Energy Index (EI) component has been included as energy costs have increased significantly for the PTOs. With its inclusion, the current "CPI – All Items" will be replaced with "core CPI (cCPI)". The current use of Mean Wage (which includes adjustments to changes in employers' CPF contributions) and 50-50 Productivity Extraction approach will be retained.

The formula is valid for the next five years from 2013 to 2017. However, the relative weightages of the Price Index and Productivity Extraction can be reviewed and recalibrated by the PTC in the event of significant changes in the PTOs' cost structure or public transport operating environment that may require such a recalibration.

Keeping to regular fare adjustments

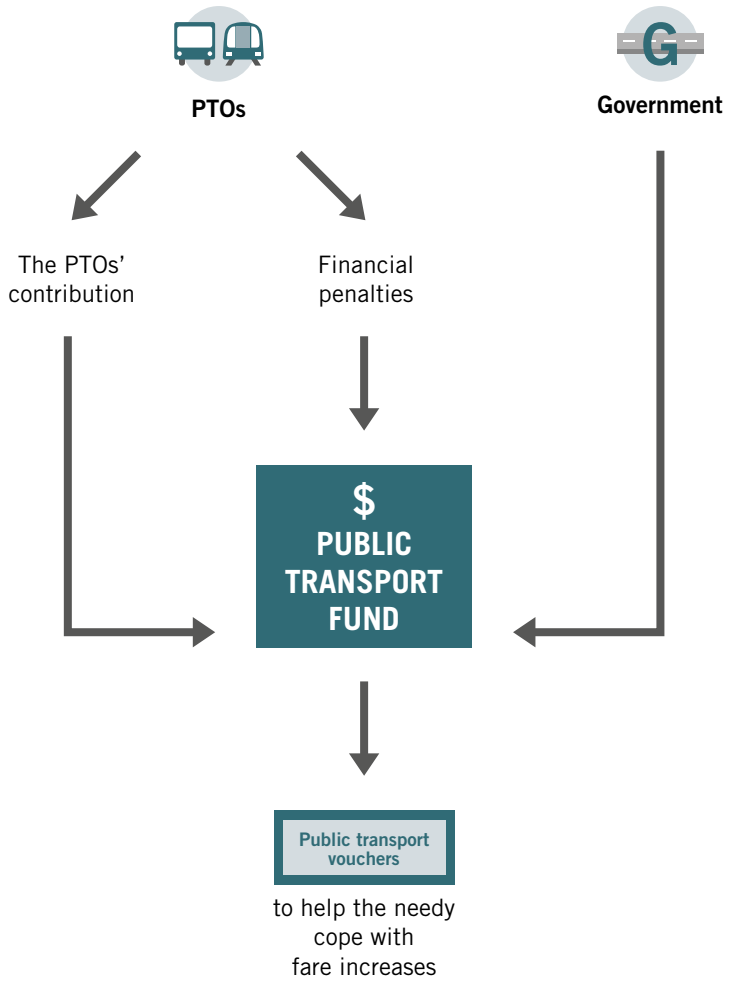
The Committee recommends that the PTC conduct the fare review exercise annually so that the changes in fares can keep pace with justifiable cost changes.

Having a flexible mechanism

The Committee notes that the new fare adjustment formula computation may give rise to a larger fare increase in certain years due to the volatility in energy prices. Therefore, the Committee recommends that the PTC have some flexibility to defer a fare review exercise if there are extenuating circumstances, to smoothen out fare adjustments, or carry over the amount to the next fare review exercise if it is too small for practical implementation. This means that any fare adjustment quantum not granted in a particular fare review exercise will be rolled over to the next exercise. The Committee reiterates that the roll-over amount will be added to the fare adjustment quantum for the next fare review exercise.

◀◀◀ For more details on the flexible mechanism, go to Highlights of recommendations, page 15

More resources for the Public Transport Fund



More contribution from PTOs

The Committee recommends that the PTC require PTOs to contribute to the Public Transport Fund. This will help the low income group adjust to fare increases whenever a fare adjustment is granted. The amount contributed must be substantive enough for this purpose.

In determining the PTOs' share of contribution to the Public Transport Fund, the Committee recommends that the PTC take into consideration the PTOs' financial health: PTOs should be required to contribute between 20% to 50% of the additional fare revenue that each gets from the fare adjustment granted; a more profitable PTO should be required to contribute more.

NOTE FROM THE CHAIRMAN

As we went about conducting the review, we consulted many stakeholders and gathered the facts. We discussed a lot. At the end of the day, commuters' interests are at the core. Our end-in-mind is to achieve affordable fares as well as a sustainable public transport for the benefit of commuters. This, we have done.

Channel financial penalties to the Public Transport Fund

To close the loop with commuters, proceeds from financial penalties imposed on service lapses of the PTOs should also be channelled to the Public Transport Fund. Separately, regulatory agencies should consider a performance-based incentive mechanism to motivate PTOs to outperform the required service standards, and increase the penalties for service quality lapses.

Contribution from the Government

To provide more resources for the Public Transport Fund, the Committee recommends that the Government continue to co-fund with the PTOs.

THANK YOU

The Committee would not have been able to carry out its work without the support and contributions of many individuals, representatives and organisations.

The focus group consultation sessions were fruitful. The Committee would like to express its appreciation to those who have generously given their time to participate in the focus group discussions and to provide the Committee with useful feedback and ideas. Indeed, the Committee has learnt much from the discussions with commuters from different walks of life, grassroots activists, union leaders, academics, professionals, and representatives from voluntary welfare organisations.

Organisations that participated in the focus group discussions:

- Grassroots organisations including Citizens' Consultative Committees, Community Club Management Committees, Residents' Committees and Neighbourhood Committees from various constituencies
- Nanyang Technological University
- National University of Singapore
- Singapore Management University
- Singapore University of Technology & Design
- Singapore Institute of Technology
- Singapore Polytechnic
- Republic Polytechnic
- Nanyang Polytechnic
- NTUC Central Committee
- Handicaps Welfare Association
- Association for Persons with Special Needs
- Disabled People's Association
- Christian Outreach to the Handicapped
- Society for the Physically Disabled
- Retired & Senior Volunteer Programme
- Ministry of Trade and Industry
- Citi Private Bank
- First Economics
- SBS Transit Ltd
- SMRT Corporation Ltd
- Transit Link Pte Ltd

The Committee would also like to thank those who took part in the household survey and other organisations which have, directly or indirectly, helped in or facilitated the review, including:

- Ministry of Education
- Ministry of Manpower
- Ministry of Social and Family Development
- People's Association
- Department of Statistics
- SG Enable
- Central Provident Fund Board
- Energy Market Authority
- Monetary Authority of Singapore
- Energy Market Company
- Argus Media Limited
- Platts, a Division of The McGraw-Hill Companies

Last but not least, the Committee would like to thank the team of officers from the Ministry of Transport, Land Transport Authority and Public Transport Council for their hard work in providing the secretariat support for this review.

GLOSSARY

Terms	Descriptions
Affordability Indicator	An indicator to track the affordability of public transport fares over time. It is defined as a percentage of the monthly household income spent on public transport. The FRMC has recommended tracking fare affordability of the households in the 2nd quintile, as well as the 2nd decile of income distribution.
Concession Cards	These are personalised cards that are issued to eligible commuter groups in accordance with the defined concession schemes.
Concession Schemes	These refer to the provision of concessions to eligible commuter groups for their travel on public transport. Eligible commuter groups will be issued with concession cards.
Concessionary Fares	Reduced fares on a per trip basis that are offered to eligible commuter groups, such as students and senior citizens, in accordance with the concession schemes. Eligible commuter groups will be issued with concession cards in order for them to benefit from reduced fares on per trip basis.
Core Consumer Price Index (cCPI)	This index is published by the Monetary Authority of Singapore. It is calculated by taking the Consumer Price Index and excluding the costs of accommodation and private road transport from the index. As a component within the fare adjustment formula, it refers to the change in core Consumer Price Index over the preceding year. It represents a proxy to the change in general cost of operation such as maintenance and repair (excluding manpower and energy) incurred by the PTOs.
Deciles	Statistically, deciles are groups of data (or cases) that divide a sample of data into ten groups (or ten deciles) based on a range of a particular variable, e.g. income distribution. The first (or lowest) decile refers to the lowest 10th percentile group; the 2nd decile refers to the 11th – 20th percentile group; and so on. A decile of income distribution has a range of household incomes, bounded by maximum and minimum household incomes of that decile. The median household income is often used to represent that decile.
Discounted Fares	Reduced fares that are granted to eligible commuter groups as a form of a concession, at a discount off the adult fares. These are sometimes used interchangeably with concessionary fares.

Distance Fares	An integrated fare structure that is based on distance, in accordance with the service types such as bus, trains, etc. It was introduced in July 2010 for bus and train travel. Fares are computed on a journey basis, without separate boarding charges being imposed for every transfer trip that makes up the journey. Boarding charge refers to the fixed component of the fare imposed on a journey regardless of the distance travelled.
Cumulated Fare Adjustment Quantum (in a particular fare review exercise)	The sum of the amount determined by the fare adjustment formula for a particular fare review exercise and any amount that was rolled over from the previous exercise. This is the total amount of fare adjustment that can be granted by the PTC in a particular fare review exercise.
Energy Index (EI)	A composite index derived based on diesel costs and electricity tariffs. As a component within the fare adjustment formula, it refers to the change in Energy Index over the preceding year. It represents a proxy to the change in general cost of energy incurred by the PTOs.
Fare Adjustment Formula (in a particular fare review exercise)	A formula that is used to calculate the fare adjustment quantum in a particular fare review exercise.
Fare Adjustment Granted (in a particular fare review exercise)	The percentage of fare adjustment on total fare revenue granted by the PTC in a particular fare review exercise.
Fare Adjustment Quantum (in a particular fare review exercise)	The percentage of fare adjustment on total fare revenue that is calculated from using the fare adjustment formula in a particular fare review exercise.
Fare Adjustment Quantum Rolled-Over (in a particular fare review exercise)	The portion of the fare adjustment quantum that is not granted by the PTC in a particular fare review exercise and will be carried-over to the next exercise. This is the difference between the fare adjustment quantum and the fare adjustment granted, in a particular fare review exercise.
Fare Level	This refers to the fares charged on a particular service type (e.g. air-con bus) or mode (whether bus or train).
Fare Review Framework	This refers to an overall framework that governs the review of fares for public transport. It consists of the fare adjustment formula, the fare review mechanism and related considerations that lead to a decision on the granting of a fare adjustment.

Fare Review Mechanism	A mechanism adopted by the PTC to evaluate and decide on the change in fare levels for public transport.
Fare Review Exercise	The process performed by the PTC to consider and decide on fare adjustment in a particular year, in accordance with the fare review framework.
Fare Revenue Allocation	This determines the share of fare revenue for each mode (whether bus or train) through the assignment of appropriate weights on the fare revenue share of the respective mode. The higher the assigned weight, the larger the fare revenue share is for the receiving mode and this consequently causes a smaller fare revenue share for the contributing mode.
Fare Structure	This refers to the method in which the fare for a trip or a journey is calculated based on distance travelled and the service types (e.g. air-con bus) that are offered.
Household Expenditure Survey (HES)	A survey conducted by the Department of Statistics once every five years, to collect detailed information on the consumption expenditure of households.
Income Distribution	This refers to the distribution of household income per household member that is derived from Household Expenditure Survey conducted by the Department of Statistics.
Monthly Concession Pass	The monthly pass that provides a monthly cap on public transport expenditure for the eligible commuter groups. The monthly concession passes available are bus concession pass, train concession pass and hybrid concession pass. Eligible commuter groups will be issued with concession cards in order for them to benefit from using this pass.
Monthly Travel Pass	The travel pass provides a cap on monthly fare expenditure for eligible adult commuters who are heavy or frequent users of public transport. Eligible adult commuters will be issued with travel cards or personalised cards in order for them to benefit from using this pass.
Productivity Extraction	This is a predetermined extraction factor through which the PTOs share their productivity improvements achieved with the commuters. As an extraction factor in the fare adjustment formula for sharing with commuters in the form of lower fare adjustment quantum, it should not be negative even if and when the PTOs achieve negative productivity improvements.

Public Transport Fund	A fund set up to help the needy or targeted commuter groups to cope with public transport fare adjustments. As part of the recommendations by the FRMC, the PTOs are required to contribute a portion of their fare adjustment granted to the Fund. In addition, the FRMC has also recommended that financial penalties from PTOs' service lapses be channelled to the Fund.
Public Transport Operators (PTOs)	These refer to licensed public bus and train operators – bus operators that are licensed by the Public Transport Council (PTC) to provide basic scheduled bus services, and train operators that are licensed by the Land Transport Authority (LTA) to provide rail services. E.g. SBS Transit Ltd provides both bus and rail services; SMRT Trains Ltd and SMRT Light Rail Pte Ltd provide rail services; and SMRT Buses Ltd provides bus services.
Price Cap	It is a form of price regulation where price increases are capped according to a specified formula.
Price Index	An index that collectively reflects the structural cost of the PTOs' operating environment. Based on the fare adjustment formula recommended by the FRMC, the Price Index comprises three components: core CPI, Wage Index and Energy Index and the relative weights assigned to them.
Quintiles	Statistically, quintiles are groups of data (or cases) that divide a sample of data into five groups (or five quintiles) based on a range of a particular variable, e.g. household income per household person. The first (or lowest) quintile refers to the lowest 20th percentile group; the 2nd quintile refers to the 21st – 40th percentile group; and so on. A quintile of income distribution has a range of household incomes, bounded by maximum and minimum household incomes of that quintile. The median household income is often used to represent the household income of that quintile.
Return-on-Total-Assets (ROTA)	A financial indicator which shows how much profit a company generates for every dollar of assets invested. Generally, PTOs which are asset intensive will require huge investments in machinery or equipment to generate profits.
Wage Index (WI)	An index that is based on the national average monthly earnings published by the Department of Statistics. As a component within the fare adjustment formula, it refers to the change in national average monthly earnings over the preceding year. It represents a proxy to the change in general cost of manpower incurred by the PTOs.

ANNEX A

ALLOWABLE FARE CAP AND ACTUAL FARE INCREASES FROM 2005 TO 2012

Year	Allowable Quantum of Fare Adjustment Provided by Formula	Actual Fare Increase		
		Bus	Rail	Overall (Bus & Rail)
2005	2.4%	2.4%	2.4%	2.4%
2006	1.7%	1.7%	1.7%	1.7%
2007	1.8%	1.8%	Nil	1.1%
2008	3.0%	0.7%	0.7%	0.7%
2009	4.8%	-1.9%	-1.3%	-1.6%[1]
2010	-2.5%	-3.1%	-1.9%	-2.5%
2011	2.8%	1.6%	0.3%	1.0%
2012	Nil[2]	Nil	Nil	Nil

[1] Excludes 3% temporary component which was restored in 2010 together with Distance Fares implementation.

[2] Fare adjustment was suspended in 2012 due to FRMC's review of the public transport fare review mechanism.

Table A1: Comparison of fare adjustments in recent years

(Source: PTC)

ANNEX B

COMPARISON OF PUBLIC TRANSPORT FARES ACROSS CITIES

Compared to other developed cities like Hong Kong, London and New York City, the average bus fare (S$0.63) and train fare (S$0.86) in Singapore are much lower on a nominal basis. The findings remain consistent after the average fares were adjusted using the purchasing power parity of the cities (refer to Table B1).

The average fares were also normalised against the Gross National Income (GNI) per capita to adjust for the individual's different earning power in these cities. Singapore's public transport fares are comparatively lower when compared to these cities (refer to Table B2).

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)

In terms of actual fare adjustment granted, Singapore's fare adjustment has been less than in Hong Kong and London in the last five years.

	Singapore		Hong Kong		London	
Year/ Mode	Bus	Rail	Bus[1]	Rail	Bus	Rail
2008	0.7%	0.7%	2.0% to 7.2%	Nil	Nil	Nil
2009	-1.9%	-1.3%	Nil	Nil	6.3%	5.8%
2010	-2.5%[2]		Nil	2.1%	12.7%	3.9%
2011	1.0%		3.2% to 3.6%	2.2%	6.8%	6.8%
2012	Nil		Nil	5.4%	5.6%	5.6%

[1] – Hong Kong's different bus operators were granted varying levels of fare increases in 2008 and 2011.

[2] – Distance-based fares implemented in 2010.

Table B3: Comparison of fare adjustments granted in Singapore, Hong Kong and London

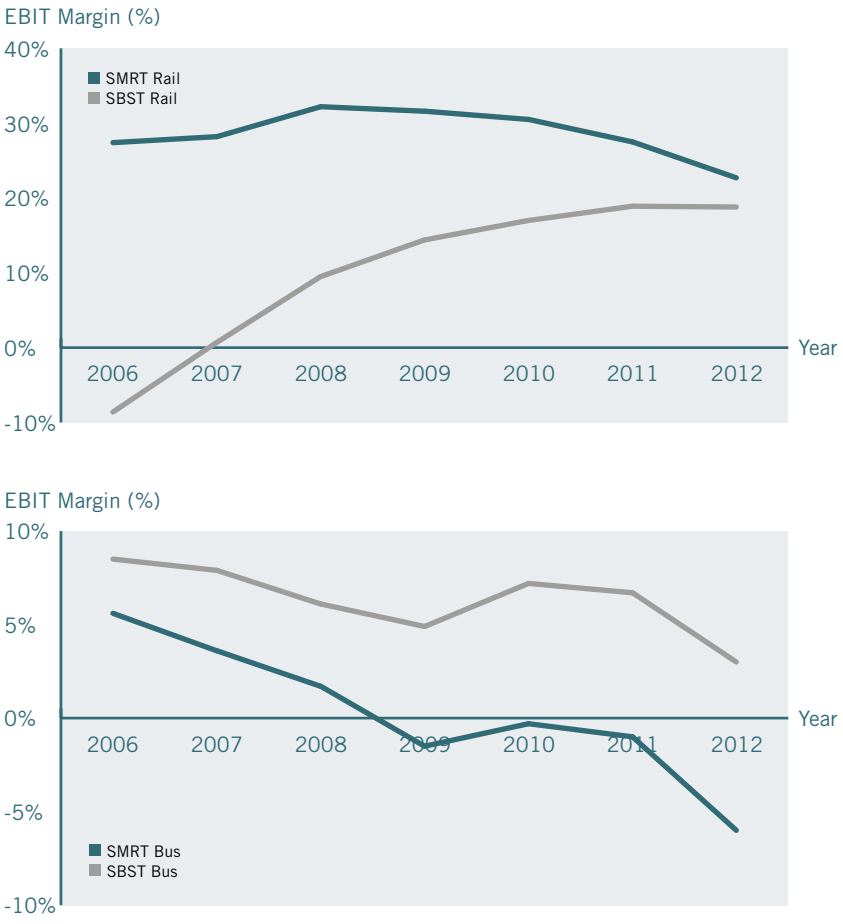
(Source: PTC and LTA)

ANNEX C

VIABILITY OF PUBLIC TRANSPORT OPERATORS

Over the years, our public transport network has become more integrated. Today's integrated bus and rail network, integrated ticketing, and integrated Distance Fares framework have resulted in more transfers, shorter trips and lower average fares, especially for bus trips.

In recent fare review exercises, the actual fare increase was less than that determined by the current fare adjustment formula. This has had an adverse impact on the financials of the industry, as the additional fare revenue did not fully compensate for cost increases in operations. This was especially so with the implementation of the Distance Fares framework in which the bus mode received a greater reduction in fares when compared to the train mode. As a result, the bus financials, in terms of Earnings Before Interest and Tax (EBIT) margins, have been trending downwards (see Figure C1).



EBIT: Earnings Before Interest and Tax.

Figure C1: Deteriorating viability of buses as compared to trains
(Source: Compiled from Public Transport Operators' submissions to the PTC)