

**Comprehensive Review of the
Government Public Transport Fare Concession Scheme
for the Elderly and Eligible Persons with Disabilities**

Final Report

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Abbreviations

A-Card	Anonymous Card	NFC	Near Field Communication
AEL	Airport Express Line	NGO	Non-Governmental Organisation
AUD	Australian Dollar	NLB	New Lantao Bus
C&SD	Census and Statistics Department	NSW	New South Wales (Australia)
CAD	Canadian Dollar	NWFB	New World First Bus
CNY	Chinese Yuan	NWFF	New World First Ferry
CSP	Centralised Settlement Platform	NYPD	New York Police Department (USA)
CSSA	Comprehensive Social Security Assistance	OCL	Octopus Cards Limited
CTB	Citybus	OECD	The Organisation of Economic Co-operation and Development
DA	Disability Allowance	P-Card	Personalised Card
DF	Differential Fares	PTFCSS	Public Transport Fare Concession Scheme Section
EMV	Europay, Mastercard and Visa	PTFSS	Public Transport Fare Subsidy Scheme
FB	Franchised Bus	PTO	Public Transport Operator
GBP	British Pound	QR Code	Quick Response Code
GDP	Gross Domestic Product	RS	Residents' Bus
GMB	Green Mini Bus	RMB	Red Mini Bus
HKT	Hong Kong Tramways	SCC	Senior Citizen Card
HKTB	Hong Kong Tourism Board	SWD	Social Welfare Department
KMB	Kowloon Motor Bus	TD	Transport Department
LRT	Light Rapid Transit (Singapore)	TfL	Transport for London
LW	Long Win Bus	TWD	Taiwan Dollar
LWB	Labour and Welfare Bureau	UK	United Kingdom
MER	Monthly Exception Report	UN	United Nations
MRT	Mass Rapid Transit (Singapore)	USD	United States Dollar
MTR	Mass Transit Railway	\$2 Scheme	Public Transport Fare Concession Scheme for the Elderly and Eligible Persons with Disabilities
MTRC	Mass Transit Railway Corporation		

Introduction

1. Since 2012, the Government has progressively introduced a Public Transport Fare Concession Scheme for the Elderly and Eligible Persons with Disabilities (the \$2 Scheme), which is applicable to elderly persons aged 65 or above and Persons with Disabilities for travelling on designated public transport services. As planned, the \$2 Scheme is due for a review after an initial period of operation and in August 2018 the Labour and Welfare Bureau (LWB) commissioned *Asia Consulting Group Limited* to conduct a review of the \$2 Scheme.
2. This Study Report details the findings and recommendations of the Review, completed in early 2020. Unless otherwise stated, references to years in the report relate to calendar years, while monetary values are quoted in Hong Kong dollars in money of the day terms. Journey numbers indicated for the Elderly and Persons with Disabilities generally refer to those performed under the \$2 Scheme only, and do not cover journeys on transport modes or routes outside the \$2 Scheme. For presentational purposes, numeric figures are shown in rounded format and summation in tables may not add up to the totals due to rounding differences.

Terms of Reference

3. The objectives of the consultancy are to review the effectiveness and sustainability of the existing Scheme and to examine possible enhancement opportunities for the future having regard to the underlying demographic trends, operational considerations, stakeholder aspirations, community interest and financial implications.
4. Having regard to these objectives, our terms of reference for the assignment encompass:
 - To review the current Scheme and evaluate its effectiveness in meeting its policy objective;
 - To project the long term financial implications of the \$2 Scheme under different scenarios as regards eligibility criteria and inclusion of additional transport modes and routes, with different adjustment mechanisms for the concessionary fare;
 - To review the advantages, feasibility and financial implications of different models of making payment to the transport operators;
 - To assess the long term sustainability of the \$2 Scheme and explore possible enhancement opportunities in streamlining its operation, improving arrangements for compliance monitoring, accounting and reimbursement settlement;
 - To review the effectiveness of existing anti-abuse measures, including possibly quantifying the abuses and their revenue implications, and examine improvement opportunities through imposing appropriate administrative measures;
 - To assess the implications of new electronic payment systems on the \$2 Scheme, as regards its use, security, cost and risk of abuse;
 - To conduct public engagement sessions for different community and stakeholder groups, analysing their views and summarise relevant findings;

- To conduct a literature review on similar schemes in other jurisdictions to identify good practices that may be applicable under Hong Kong circumstances.

Work Carried Out

5. The Review has been conducted in two phases, with the first started off with a background research on relevant literature and overseas experiences, evaluating the performance of the \$2 Scheme since its introduction in 2012, and assessing the feedback from different stakeholder groups as regards the operation of the \$2 Scheme and the opportunities for its future enhancement. The final phase, which culminated in the submission of this Final Report, has focused on developing viable options to enhance the offerings under the \$2 Scheme, and developing recommendations to help improve effectiveness and efficiency in its future operation.

Background research

6. At an early stage of the Review, we have examined the existing literature available on the subject as provided by LWB and the Transport Department (TD). These include policy papers, agreements setting out operational arrangements with Octopus Card Limited (OCL) and the public transport operators (PTOs), regular reports from OCL, as well as patronage statistics, differential fare (DF) reimbursement records, monthly exception reports (MERs), field survey reports, etc.
7. In addition, we have examined some corporate documents of the PTOs, e.g. annual reports and website information to better understand their operations. Related public documents of trade associations have been reviewed, as well as research or statistics of international agencies. News reporting on relevant study matters has also been monitored, e.g. developments in the use of new electronic payment systems in the public transport sector.
8. The background research has also covered reviewing overseas experiences from which Hong Kong may be able to draw reference. We have researched relevant practices in 13 cities in Asia, Australia, Europe and North America, and collected a broad range of practical information which has provided useful references when considering possible enhancements to the \$2 Scheme.

Public engagement

9. Shortly after the commencement of the Review, separate presentations have been made to the Elderly Commission and the Social Welfare Advisory Committee to brief them on the scope and approach of the Review and to seek feedback from their membership.
10. To collect initial views from stakeholders and the wider community as to the advantages and disadvantages of the current Scheme, and the areas which can be improved upon, we have undertaken 5 public engagement sessions in collaboration with LWB and TD. These sessions have all been planned and executed smoothly, and a wide range of useful comments and suggestions have been made by the participants. Together they cover the full range of stakeholder groups, including PTOs currently on the \$2 Scheme or not on the \$2 Scheme, concern groups on the elderly and Persons with Disabilities, and members of District Councils, Area Committees and Rural Committees.

11. There is also some subsequent media reporting on the subject following the public engagement sessions, providing further insights into the subject from a community perspective. To supplement the engagement sessions, we have conducted follow up interviews with selected stakeholders.

Performance Assessment

12. On the basis of the available data, we have examined the performance of the \$2 Scheme since its introduction, including the profiles of the beneficiary, their travelling trends and patterns, and the relevant financials. The task has also included an assessment on the effectiveness of the \$2 Scheme in promoting more travelling among the elderly and Persons with Disabilities, thus enhancing the social inclusion of these groups in the community. To provide a baseline reference, we have projected longer term increases in the number of journeys under the \$2 Scheme, and assessed the likely future demand on government funding.
13. Given the general concern that there may exist some significant fare abuses in the operation of the \$2 Scheme, we have focused our efforts on the matter, including an attempt to broadly assess the likely magnitude of abuses having regard to overseas benchmarks.

Enhancement and Rationalisation

14. On the basis of the performance of the \$2 Scheme so far, a range of options have been explored to improve future operations. In particular, the work includes looking into the possibility of extending the current scope of the \$2 Scheme to other public transport modes or routes which are not currently covered; revisiting the current eligibility criteria; and exploring ways and means of reducing potential abuses inherent in the operation of the \$2 Scheme.

Support Processes

15. As part of the work, we have examined a number of supporting processes with a view to enhancing the performance of the \$2 Scheme, and raising its capability to meet future requirements. These include the potential expansion of the Centralised Settlement Platform to cover all PTOs on the \$2 Scheme, the implications of including new electronic payment systems in addition to the Octopus, and possible enhancements to the internal monitoring and auditing processes for the \$2 Scheme.

Overview of the \$2 Scheme

16. The \$2 Scheme was announced in the Chief Executive's Policy Address in October 2011 and implemented in phases from June 2012. Before that, various concessionary fare schemes for the elderly and Persons with Disabilities have already been implemented by the major PTOs over the years, although the concessions vary. The \$2 Scheme enables eligible elderly people and Persons with Disabilities to travel on designated public transport services at a flat \$2 concessionary fare. Under the \$2 Scheme, the Government periodically reimburses the PTOs a DF for each qualified journey. The DF is calculated based on the fare revenue foregone by the PTOs, or the difference between the \$2 fare and the normal fare for these passengers after discounting any concessions already offered by the PTOs.
17. The purpose of the \$2 Scheme is to help build a caring and inclusive society by encouraging these groups to participate more in community activities. It is not intended to subsidize the operation of the PTOs, nor to relieve the pressure of fare increases or influence market

competition. For the elderly, the target beneficiaries under the \$2 Scheme cover all elderly people aged 65 or above. And for Persons with Disabilities, the \$2 Scheme covers those aged below 65 who are either recipients of Disability Allowance (DA) or recipients of the Comprehensive Social Security Assistance Allowance (CSSA) and assessed with 100% disabilities.

18. The \$2 Scheme was first implemented on the MTR local lines in June 2012, and subsequently rolled out to cover other modes and services. The dates on which the relevant modes/ PTOs were brought on the \$2 Scheme are shown below.

Implementation schedule across transport modes

Mode	PTO	Date
Rail	Mass Transit Railway (MTR)	28 Jun 2012
Franchised Buses (FBs)	Kowloon Motor Bus (KMB)	5 Aug 2012
	Citybus (CTB)	5 Aug 2012
	New World First Bus (NWFB)	5 Aug 2012
	Long Win Bus (LW)	5 Aug 2012
	New Lantao Bus (NLB)	3 Mar 2013
Ferries	Various	3 Mar 2013
Public Light Buses (PLBs)	Green Mini Buses (GMBs)	29 Mar 2015

Source: TD

19. Other PTOs, such as Hong Kong Tramways (HKT), Red Mini Buses (RMBs), Residents' Services (RSs), Kaitos and Taxis are not currently covered under the \$2 Scheme, nor are certain services operated by the PTOs currently on the \$2 Scheme. The current coverage is summarised below.

Public transport modes and services under the \$2 Scheme

Mode	Services
MTR	Domestic MTR services including Light Rail and MTR Bus (Northwest New Territories), but excluding the Airport Express, East Rail Line services to and from Lo Wu, Lok Ma Chau and Racecourse Stations, and first-class service of East Rail Line
FBs	All FB routes except "A" and "NA" routes to the airport, racecourse routes and routes on a pre-booking and group hire basis
Ferries	Designated ferry services excluding deluxe class services and the North Point-Joss House Bay route.
GMBs	All GMB routes

Source: LWB

Operations

20. Under the \$2 Scheme, the eligible elderly or Persons with Disabilities can travel on designated public transport modes at \$2 per journey using an Octopus Card. They only need to tap their cards once on the Octopus Reader and will be debited the \$2 fare for the journey. If the original fare for a journey is below \$2, the beneficiaries only need to pay the original fare. For the purposes of the \$2 Scheme, the original fare is taken at the elder fare or Persons with Disabilities

fare (if applicable) for the journey less any applicable discounts offered by the PTO, or at the adult fare if no elder fare or Persons with Disabilities fare is available, less any applicable operator discounts. The DF, or the shortfall between the original fares and the \$2, will be settled subsequently between the Government and the PTOs.

21. Where two-way section fares are offered on FB, the beneficiaries can tap their Octopus Cards again before alighting to properly record the fares for their trips. And for those travelling on GMB routes with section fares/ two-way section fares, they can alert the drivers to adjust the fare setting on the Octopus Reader before they tap to pay for their journeys.
22. Currently the elderly can use either the Elder Octopus Card or the Personalised Octopus Card (P-Card) to benefit from the \$2 Scheme. The Elder Octopus Card, which is anonymous, is available for purchase over the counter at various MTR, Light Rail, First Ferry and Citybus locations. The P-Card, which carries personal data and can be issued with or without a photo, is only available for application through a limited number of MTR and Light Rail Customer Service Centres. The time required to issue a P-Card is about 2 weeks.
23. For eligible Persons with Disabilities, both adults and children, they have to use a P- Card with "Persons with Disabilities Status" encoded and a photo printed on the card (Persons with Disabilities P-Card). Under the present arrangement, upon approval of eligibility for CSSA/DA, the Social Welfare Department (SWD) will issue pre-verified application forms to eligible Persons with Disabilities confirming their eligibility for the \$2 Scheme. These eligible persons can then complete and return their application forms to the Mass Transit Railway Corporation (MTRC) for processing. It normally takes MTRC and OCL around four to six weeks to process the applications for Persons with Disabilities P-Cards. As at the end of 2018, the number of Persons with Disabilities P-Card in circulation was about 139,000. Compared with the 167,000 Persons with Disabilities currently qualified for the \$2 Scheme, the figure indicates that for personal mobility or other reasons, only about 83% of those qualified actually take up the benefit. For the purposes of this Review, unless otherwise indicated the Persons with Disabilities numbers refer to those qualified Persons with Disabilities already with a Persons with Disabilities P-Card.
24. At present all Persons with Disabilities can apply for a Registration Card for People with Disabilities as an identification for their "Persons with Disabilities Status". Around 90,000 cards are in issue as of March 2019. The purpose of the Registration Card is to enable the cardholders to produce the card, when necessary, as a documentary proof of their disability status for the convenience of receiving prompt and appropriate assistance. The card is not associated with the provision of any welfare benefits nor is it a documentary proof for eligibility of the \$2 Scheme.
25. Reimbursement of the DF by the Government to the PTOs is carried out periodically for Ferries, GMBs and NLB through a Centralised Settlement Platform (CSP) operated by OCL on behalf of the Government, and for the other PTOs through their own systems. The frequencies of reimbursement vary, with those on the CSP based on next business day settlement and those with their own systems based on monthly settlement. The reimbursement amounts are subject to adjustments from time to time to take care of any errors, omissions and abuse cases that might be found by the PTOs themselves, OCL or the Government.
26. To check the accuracy of the reimbursements and the integrity of the underlying systems, the relevant accounts and internal controls of the PTOs are subject to regular audit by external auditors appointed and paid for by the Government, or if the PTOs so prefer, by the PTOs' auditors at their own or the Government's expense. The Government also regularly appoints

external contractors to undertake independent field surveys to help monitor and discourage any misuses or abuses in the operation of the \$2 Scheme.

Octopus Card usage

27. The Octopus Card is a contactless card that provides a simple and secure way to settle small value payments. The stored value card can also be used online with compatible Near Field Communication (NFC) devices. Launched in 1997 across public transport systems, the use of the card has grown rapidly over the years and extended into retail and other applications. Today almost all local residents use the card in their day to day transactions, as well as a significant proportion of visitors. The Octopus Cards have adult, elder and child versions, and can either be anonymous (A-Cards) or personalised. The P-Card can be issued with or without a photo.
28. A summary of the Octopus Cards in circulation is shown in the table below. The numbers exclude cards which have been inactive for more than three years. As at the end of 2018, there are about 36 million Octopus Cards in circulation. About 3.6 million of these are Elder Cards, of which 9% are personalised and the rest anonymous. Also in circulation are 139,000 Persons with Disabilities P-Cards, all of which are personalised with photos.

Octopus cards in circulation

('000)	Elder Cards			Persons with Disabilities Cards	All Cards			Annual Increase (%)		
	A-Cards	P-Cards	Total	P-Cards	A-Cards	P-Cards	Total	Elder Cards	Persons with Disabilities Cards	All Cards
2011	1,763	90	1,852	69	-	-	22,000	-	-	-
2012	1,990	110	2,100	85	-	-	24,000	13.4	23.2	9.1
2013	2,260	129	2,389	96	-	-	26,000	13.8	12.9	8.3
2014	2,400	166	2,566	109	25,000	3,000	28,000	7.4	13.5	7.7
2015	2,500	215	2,715	118	28,000	3,000	31,000	5.8	8.3	10.7
2016	2,700	250	2,950	126	30,000	3,000	33,000	8.7	6.8	6.5
2017	3,000	292	3,292	132	31,000	3,000	34,000	11.6	4.8	3.0
2018	3,300	338	3,638	139	33,000	3,000	36,000	10.5	5.3	5.9
Average % increase p.a.	9.4	20.9	10.1	10.5			7.3	10.1	10.5	7.3

*2011-3 figures are end year estimates based on available data for other months

Source: OCL

29. Overall the total number of cards in circulation is considerably more than the local population of about 7.5 million. This suggests that there is some multiple card holding by local residents for convenience reasons, and there are cards being held or otherwise disposed of by visitors.
30. The increase in the number of Elder Cards in recent years has been significantly faster than the overall increase of Octopus Cards. This reflects the underlying ageing of the local population and the increase in elderly visitors, but the incentive under the \$2 Scheme may have also provided some encouragement. In comparison with the 4.3% average annual growth of the resident elderly population during 2011-18, the number of Elder Cards has grown by an average 10.1%. As with the overall number of Elder Cards, only a small proportion (9%) of the Elder cards are P-Cards, although there has been a faster take up in recent years.
31. Only a small proportion of the Elder Cards in circulation are being actively used however. The remainder probably involve extra cards being held in reserve by the elderly or their relatives, or visitor cards which are generally used only for short periods and thereafter shelved or otherwise disposed of. A snapshot analysis carried out in October 2018 on the elderly journeys

indicates that only 1.24 million, or about one third, of the 3.6 million cards in circulation have been used at least once during the month, performing in total 33.6 million journeys, or 27.1 journeys each. The detailed figures are contained in **Appendix A**.

Beneficiaries

32. The beneficiaries under the \$2 Scheme include the elderly and Persons with Disabilities. The number of eligible persons over the years is shown in the table below. This indicates that in 2018, the total number of eligible persons include 1.27 million elderly residents, 0.17 million Persons with Disabilities and some 3.12 million elderly visitors. The elderly visitors are however only transients in Hong Kong and therefore unlikely to make a significant overall impact on the \$2 Scheme notwithstanding their higher numbers. Since an estimated 39% of the elderly visitors are same day visitors and the rest have an estimated average stay of 3.1 days based on Hong Kong Tourism Board (HKTB) data, in terms of their impact on journey numbers these visitors are probably equivalent to 0.02 million residents only¹. The estimate assumes residents and visitors have broadly similar use of public transport in terms of average journey numbers. In this respect it is noted that since overall 89% of all visitors are tourists and only about 4% are on package tours, the great majority of the visitors commute on public transport for their local journeys, a situation which is not dissimilar to that of local residents.

Profile of eligible beneficiaries under the \$2 Scheme

		('000)	2012	2013	2014	2015	2016	2017	2018
Residents	Elderly	(Aged)							
		65-69	264.4	295.1	326.3	363.1	395.7	412.3	426.7
		70-74	221.1	213.1	211.5	213.7	220.8	249.7	279.9
		75-79	208.9	210.2	209.3	209.5	206.4	198.1	191.7
		80-84	151.0	157.6	164.7	166.2	167.0	171.4	173.6
	85 or more	134.5	143.9	152.0	162.1	173.3	183.1	194.3	
	Total	979.9	1,019.9	1,063.8	1,114.6	1,163.2	1,214.6	1,266.2	
	Persons with Disabilities	134.0	140.0	146.0	151.0	156.0	162.0	167.0	
	Residents total	1,113.9	1,159.9	1,209.8	1,265.6	1,319.2	1,376.6	1,433.2	
Elderly visitors			1,896.0	2,052.5	2,372.7	2,431.6	2,441.8	2,637.1	3,120.6
Total			3,009.9	3,212.4	3,582.5	3,697.2	3,761.0	4,013.7	4,553.8

Source: Population statistics from Census and Statistics Department (C&SD), Persons with Disabilities data from LWB, Visitor data derived from HKTB published statistics

Journeys under the \$2 Scheme

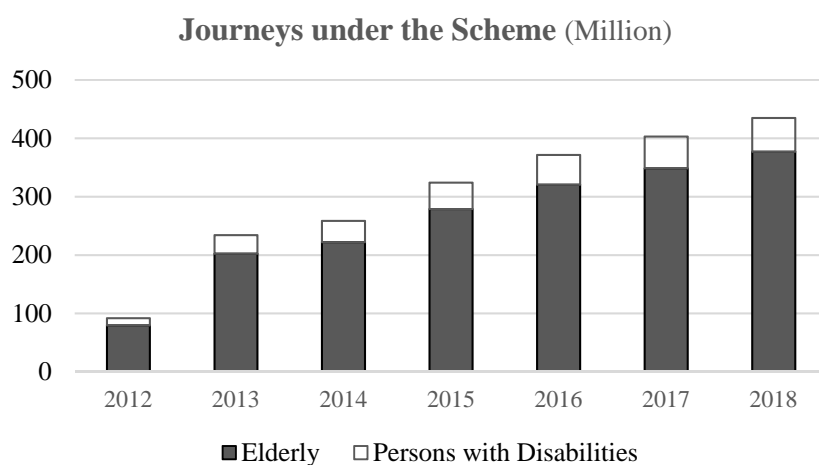
33. The total number of journeys undertaken by the elderly and Persons with Disabilities under the \$2 Scheme has increased significantly as the \$2 Scheme is progressively rolled out to various public transport modes and services, as shown below. A portion of the increase over the years is however due to the underlying increases in the elderly and Persons with Disabilities population.

¹ 3.12 million x((39% X 1+(1-39%) X 3.1)/365

Journeys undertaken under the \$2 Scheme by mode

(Million)	Elderly					Persons with Disabilities					Elderly/Persons with Disabilities				
	FBs	MTR	GMBs	Ferries	Total	FBs	MTR	GMBs	Ferries	Total	FBs	MTR	GMBs	Ferries	Total
2012	52.6	27.0	-	-	79.6	6.0	6.3	-	-	12.3	58.6	33.3	-	-	91.9
2013	143.0	57.9	-	1.6	202.5	18.2	13.2	-	0.2	31.6	161.2	71.0	-	1.8	234.0
2014	153.5	66.7	-	2.0	222.1	20.8	15.4	-	0.2	36.4	174.2	82.1	-	2.2	258.5
2015	158.8	73.4	44.6	2.2	278.9	22.0	16.6	6.1	0.3	45.0	180.8	90.0	50.7	2.4	324.0
2016	164.7	81.0	72.5	2.3	320.5	23.2	17.9	9.6	0.3	51.0	187.9	98.9	82.2	2.6	371.5
2017	173.9	90.9	81.3	2.4	348.5	24.3	19.4	10.5	0.3	54.5	198.2	110.3	91.8	2.7	403.1
2018	186.5	99.3	88.7	2.5	377.0	25.3	20.8	11.2	0.3	57.8	212.0	120.1	99.9	2.9	434.9

Source: TD



34. In 2018, the average Elderly/Persons with Disabilities made 305 journeys under the \$2 Scheme, or 0.84 journeys per day. This is about 58% of the overall average for all passengers on public transport modes covered by the \$2 Scheme, indicating the Elderly/Persons with Disabilities are probably reasonably well travelled since not many of them have to work regularly. From another perspective, overall Elderly/Persons with Disabilities journeys represent about 10.6% of the total public transport patronage in 2018 excluding non-Scheme modes/services, against the 18.9% these passengers constitute in the overall population, or 13.9% if those aged 80 and above are excluded from calculation, who are much less likely to use public transport anyway.
35. A breakdown of the journeys undertaken in October 2018 indicates that while there were extreme cases each making over 400 journeys in the month, the great majority of the Elderly/Persons with Disabilities travelled much less. About 90% of all Elderly/Persons with Disabilities cardholders made 70 or less journeys in the month, while 80% made 50 or less. The distribution of the journeys undertaken, summarised below, is contained in **Appendix B**.

Average journeys undertaken by Elderly/Persons with Disabilities cardholders in October 2018

No. of Journeys	No. of Cardholders			Percentage Distribution			Cumulative %		
	Elderly	Persons with Disabilities	Total	Elderly	Persons with Disabilities	Total	Elderly	Persons with Disabilities	Total
10 or below	471,693	25,157	496,661	38.0	20.9	36.5	38.0	20.9	36.5
11-20	207,027	17,003	223,960	16.7	14.1	16.5	54.7	35.1	53.0
21-30	138,829	12,968	151,766	11.2	10.8	11.2	65.9	45.9	64.2
31-40	109,043	10,800	119,822	8.8	9.0	8.8	74.7	54.9	73.0
41-50	86,881	10,903	97,782	7.0	9.1	7.2	81.8	63.9	80.2
51-60	69,384	10,594	79,986	5.6	8.8	5.9	87.3	72.7	86.1
61-70	52,920	9,253	62,188	4.3	7.7	4.6	91.6	80.4	90.6
71-80	34,421	6,573	40,993	2.8	5.5	3.0	94.4	85.9	93.6
81-90	23,398	4,787	28,191	1.9	4.0	2.1	96.3	89.9	95.7
91-100	16,104	3,618	19,723	1.3	3.0	1.5	97.6	92.9	97.2
101-110	10,816	2,615	13,437	0.9	2.2	1.0	98.5	95.1	98.2
111-120	7,110	1,900	9,014	0.6	1.6	0.7	99.0	96.7	98.8
121-130	4,485	1,414	5,898	0.4	1.2	0.4	99.4	97.8	99.3
Above 130	7,584	2,589	10,176	0.6	2.2	0.7	100.0	100.0	100.0
Total	1,239,695	120,174	1,359,597	100.0	100.0	100.0			

Source: OCL

36. The growth of Elderly/ Persons with Disabilities journeys under the \$2 Scheme for the different modes since the introduction of the \$2 Scheme is summarised below, with the first year data annualised to facilitate an assessment. Care should be taken in comparing details across modes as these may involve different periods given the different start times.

Growth in Journeys undertaken under the \$2 Scheme by mode

(Times)	FBs	MTR	GMBs	Ferries
	2013-18	2012-18	2015-18	2013-18
Growth over Period	1.31	1.84	1.50	1.35

37. Overall journeys on FBs in 2018 was roughly about 1.31 times the 2013 level, ignoring the minor discrepancy in the figures for NLB which joined 7 months later. MTR on the other hand had a 1.84 time growth factor during 2012-18, while the GMBs, which joined only in 2015, achieved 1.5 times within a shorter period to 2018. The Ferries on the other hand had 1.35 times since joining the \$2 Scheme in 2013. Apart from the additional Elderly/Persons with Disabilities journeys induced by the \$2 Scheme, the growth achieved by the individual modes is also influenced by major events such as the addition of major public transport services e.g. the opening of the West Island Line and South Island Line, but the change in the competitive landscape following the introduction of the \$2 Scheme could also be a factor.
38. Given the different joining time, it is not practical to estimate an overall rate of increase for all the modes covered for the entire period since the \$2 Scheme was first introduced. But across all modes/PTOs, Elderly/Persons with Disabilities journey numbers under the \$2 Scheme for 2018 were 1.28 times the 2015 level, i.e. during the time when all were on the \$2 Scheme.
39. The above growth factors for the Elderly/Persons with Disabilities journeys are high against the corresponding figures for all passengers for the modes covered, as indicated by the very significant relative increases for all modes shown below. A summary of the total journeys covering all public transport passengers is contained in **Appendix C**.

Growth of journeys under the \$2 Scheme relative to all passenger journeys

Growth over Period*	FBs	MTR	GMBs	Ferries	Overall	
	2013-18	2012-18	2015-18	2013-18	2015-18	2013-18#
Elderly/Persons with Disabilities	1.31	1.84	1.50	1.35	1.28	1.43
All passenger	1.04	1.15	0.99	0.94	1.04	1.07
Relative increase	1.27	1.60	1.51	1.44	1.23	1.33

* Times increase with first year annualised # Excl. GMBs

By taking away the special circumstances of the individual modes, the analysis above shows that across all modes, the growth achieved in Elderly/Persons with Disabilities journeys has been very significant relative to the underlying growth of the respective modal segments.

40. Much of the increase in the journeys under the \$2 Scheme is due to the underlying increase in the Elderly/Persons with Disabilities population, the 2018 figure being 1.32 times the 2012 level. Removing this factor, the net growth achieved by the \$2 Scheme is lower. Even then, the growth factor is still very respectable for MTR, at 1.39 times.
41. Over 2013-18, a more modest 1.04 times has been achieved by the FBs and 1.07 times by the Ferries. The overall factor achieved for all modes over the shorter common period of 2015-18 when all the PTOs are on the \$2 Scheme was 1.12 times. If the period is extended to 2013-18, and therefore excludes the GMBs, the net growth factor was slightly higher at 1.13 times.

Growth of journeys under the \$2 Scheme relative to Elderly/Persons with Disabilities population

Growth over Period*	FBs	MTR	GMBs	Ferries	Overall	
	2013-18	2012-18	2015-18	2013-18	2015-18	2013-18#
Elderly/Persons with Disabilities journeys	1.31	1.84	1.50	1.35	1.28	1.43
Elderly/Persons with Disabilities population	1.26	1.32	1.14	1.26	1.14	1.26
Net growth due to Scheme	1.04	1.39	1.32	1.07	1.12	1.13

* Times increase with first year annualised #Excl. GMBs

42. On the basis of the broad analysis above, we consider overall the \$2 Scheme has been quite successful in encouraging the elderly and Persons with Disabilities to travel more by public transport, especially so for MTR and GMB journeys. The result is generally consistent with the positive comments we have received about the \$2 Scheme from various stakeholder groups during consultations.

Modal Distribution

43. In terms of modal distribution, about 49% of the Elderly/Persons with Disabilities patronage in 2018 went to the FBs, with the MTR accounting for 28% and GMBs 23%. Ferry journeys are

quite insignificant, accounting for less than 1 percent. The overall patterns for the elderly and the Persons with Disabilities are broadly similar allowing for the reduced MTR journeys counted under the \$2 Scheme due to its offer of a \$2 fare for the elderly on Wednesday, Saturday and non-Sunday public holidays.

Modal distribution of Elderly/Persons with Disabilities journeys under the \$2 Scheme

Modal distribution of journeys	Elderly				Persons with Disabilities				Elderly/Persons with Disabilities			
	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries
2012	66.1%	33.9%	-	-	49.1%	50.9%	-	-	63.8%	36.2%	-	-
2013	70.6%	28.6%	-	0.8%	57.8%	41.7%	-	0.5%	68.9%	30.4%	-	0.8%
2014	69.1%	30.0%	-	0.9%	57.0%	42.3%	-	0.6%	67.4%	31.8%	-	0.9%
2015	56.9%	26.3%	16.0%	0.8%	49.0%	36.9%	13.5%	0.6%	55.8%	27.8%	15.6%	0.8%
2016	51.4%	25.3%	22.6%	0.7%	45.4%	35.2%	18.9%	0.5%	50.6%	26.6%	22.1%	0.7%
2017	49.9%	26.1%	23.3%	0.7%	44.5%	35.6%	19.3%	0.6%	49.2%	27.4%	22.8%	0.7%
2018	49.5%	26.3%	23.5%	0.7%	44.1%	36.0%	19.3%	0.6%	48.8%	27.5%	23.0%	0.7%

44. As shown in the modal distributions for 2018 below, the Elderly/Persons with Disabilities travel proportionately more on FBs and GMBs, and less on MTR in comparison with the all passenger numbers. This is understandable given the more direct access accorded by the bus networks and the fact that most of these beneficiaries have already retired from active employment.

Comparison of modal distribution of Elderly/Persons with Disabilities under the \$2 Scheme and all passenger journeys (2018)

	FBs	MTR	GMBs	Ferries	Total
Elderly/Persons with Disabilities	48.8%	27.6%	23.0%	0.7%	100.0%
All passengers	36.0%	49.3%	13.5%	1.1%	100.0%

Seasonality

Monthly patterns

45. The monthly distribution of the Elderly/Persons with Disabilities journeys for 2016-18 when the current Scheme was in full operation is summarised below. A more detailed distribution by mode is contained in **Appendix D**.

Elderly/Persons with Disabilities journeys under the \$2 Scheme by month

	Elderly (Million)			Persons with Disabilities (Million)			Average distribution		
	2016	2017	2018	2016	2017	2018	Elderly	Persons with Disabilities	Elderly/ Persons with Disabilities
Jan	25.7	28.5	31.0	4.1	4.5	4.8	8.1%	8.2%	8.2%
Feb	24.2	26.6	27.2	3.8	4.0	4.2	7.5%	7.4%	7.4%
Mar	26.2	29.9	32.3	4.1	4.6	4.9	8.5%	8.3%	8.4%
Apr	25.7	27.4	30.6	4.1	4.4	4.7	8.0%	8.0%	8.0%
May	27.4	29.1	31.4	4.3	4.6	4.9	8.4%	8.5%	8.4%
Jun	25.9	28.3	30.2	4.2	4.5	4.7	8.1%	8.3%	8.1%
Jul	26.9	28.7	31.6	4.4	4.6	4.9	8.3%	8.5%	8.4%
Aug	26.8	28.6	31.8	4.3	4.5	4.9	8.3%	8.4%	8.3%
Sep	27.4	29.7	30.1	4.4	4.7	4.7	8.3%	8.4%	8.4%
Oct	27.6	30.0	33.7	4.3	4.6	5.1	8.7%	8.6%	8.7%
Nov	27.4	30.4	32.9	4.3	4.7	4.8	8.7%	8.4%	8.6%
Dec	29.1	31.2	34.2	4.6	4.9	5.1	9.0%	8.9%	9.0%
Total	320.5	348.5	377.0	51.0	54.5	57.8	100%	100%	100%

Source: TD

46. Overall, the monthly distribution of the Elderly/Persons with Disabilities journeys largely reflects the number of days in the individual months, although there appears to be a slight preference for the Elderly/Persons with Disabilities to travel more during the cooler months, and a bit less during the winter months. These differences are however not significant.
47. The monthly distribution of the Elderly/Persons with Disabilities journeys for individual modes shows a similar pattern, as shown below for 2018.

Monthly share of Elderly/Persons with Disabilities journeys under the \$2 Scheme by mode (2018)

%	Elderly				Persons with Disabilities				Elderly/Persons with Disabilities			
	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries
Jan	8.2%	8.2%	8.2%	7.9%	8.2%	8.3%	8.3%	7.9%	8.2%	8.3%	8.2%	7.9%
Feb	7.3%	7.1%	7.2%	7.6%	7.4%	7.4%	7.2%	7.5%	7.3%	7.2%	7.2%	7.6%
Mar	8.6%	8.6%	8.4%	9.3%	8.5%	8.5%	8.4%	8.6%	8.6%	8.6%	8.4%	9.2%
Apr	8.2%	7.9%	8.1%	9.4%	8.1%	8.0%	8.0%	9.3%	8.2%	7.9%	8.1%	9.4%
May	8.4%	8.0%	8.5%	8.9%	8.5%	8.5%	8.5%	9.0%	8.4%	8.1%	8.5%	8.9%
Jun	8.0%	7.9%	8.1%	7.4%	8.2%	8.2%	8.3%	7.8%	8.0%	8.0%	8.2%	7.4%
Jul	8.3%	8.5%	8.4%	7.5%	8.5%	8.5%	8.4%	8.2%	8.4%	8.5%	8.4%	7.6%
Aug	8.3%	8.6%	8.5%	7.3%	8.4%	8.5%	8.5%	7.5%	8.3%	8.6%	8.5%	7.4%
Sep	7.9%	8.0%	8.2%	6.9%	8.0%	8.3%	8.2%	7.1%	7.9%	8.0%	8.2%	7.0%
Oct	9.0%	8.9%	8.9%	9.3%	8.9%	8.8%	8.9%	9.4%	9.0%	8.9%	8.9%	9.3%
Nov	8.6%	8.9%	8.7%	9.3%	8.4%	8.1%	8.7%	8.3%	8.6%	8.8%	8.7%	9.2%
Dec	9.1%	9.3%	8.9%	9.2%	8.8%	9.0%	8.7%	9.4%	9.0%	9.2%	8.8%	9.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Weekday/weekend and holiday patterns

48. A broad analysis into the weekday/ weekend and holiday journey distributions for the Elderly/Persons with Disabilities has been undertaken as part of the Review, based on available data from major public transport modes for the month of October 2018, supplemented with minor assumptions on PTOs for which we have no daily all passenger data. The percentage distribution of the journeys is summarised below. Overall, there does not appear to be a significant difference between the journey patterns of the Elderly/Persons with Disabilities compared with those for all passengers, generally with a 70:30 split.

Weekday and weekend/holiday journey patterns
by passenger type in October 2018

	% distribution	
	Weekdays	Weekends/Holidays
Elderly	70.0%	30.0%
Persons with Disabilities	71.3%	28.7%
Elderly/Persons with Disabilities	70.1%	29.9%
All Passengers	71.2%	28.8%

* Elderly/Persons with Disabilities figures derived from OCL data, all passenger figures derived from operator data.

49. The same observation also applies to journeys on different transport modes, except that for the Ferries the overall split is about 65:35 given the usual holiday traffic. The exceptional split of 57:43 for Persons with Disabilities for Ferries may be attributable to the small number of Persons with Disabilities journeys on the Star Ferry during weekends/ holidays, the \$2 Scheme being not applicable on weekdays when the fares for Persons with Disabilities is below \$2.

Weekday and weekend/holiday journey patterns by mode
by passenger type in October 2018

	% distribution	
	Weekdays	Weekends/Holidays
FBs		
Elderly	69.0%	31.0%
Persons with Disabilities	70.1%	29.9%
Elderly/Persons with Disabilities	69.1%	30.9%
All Passengers	70.7%	29.3%
MTR		
Elderly	70.9%	29.1%
Persons with Disabilities	72.2%	27.8%
Elderly/Persons with Disabilities	71.1%	28.9%
All Passengers	72.0%	28.0%
GMBs		
Elderly	71.1%	28.9%
Persons with Disabilities	72.7%	27.3%
Elderly/Persons with Disabilities	71.3%	28.7%
All Passengers	70.7%	29.3%
Ferries		
Elderly	65.2%	34.8%
Persons with Disabilities	56.9%	43.1%
Elderly/Persons with Disabilities	64.2%	35.8%
All Passengers	64.2%	35.8%

* Elderly/Persons with Disabilities figures derived from OCL data. All passenger figures derived from operator data.

Hourly Patterns

50. We have also undertaken an analysis on the hourly distribution of the Elderly/Persons with Disabilities journeys based on data available for the month of October 2018. We have focused our analysis on the peak periods, where the potential impact of the subsidised journeys could be a cause for concern given the additional demand on critical peak hour capacity could potentially add to delays, congestions and passenger waiting times.
51. The hourly patterns of the Elderly/Persons with Disabilities are summarised below with the shaded areas showing hourly slots with 6.5% or more of the daily journey numbers.

Hourly pattern of Elderly/Persons with Disabilities journeys under the \$2 Scheme by mode

% Distribution	FBs	MTR	GMBs	Ferries	Total
0000-0659	5.9%	3.5%	4.8%	5.0%	4.7%
0700-0759	5.1%	4.6%	4.8%	5.1%	4.8%
0800-0859	6.2%	5.9%	6.6%	6.2%	6.1%
0900-0959	7.0%	6.5%	8.3%	7.2%	7.1%
1000-1059	7.4%	6.8%	8.5%	8.1%	7.4%
1100-1159	7.4%	7.3%	8.3%	7.3%	7.5%
1200-1259	7.2%	7.0%	7.5%	7.1%	7.2%
1300-1359	7.6%	7.4%	7.4%	7.5%	7.5%
1400-1459	7.0%	7.3%	6.9%	7.1%	7.1%
1500-1559	7.2%	7.1%	7.0%	8.2%	7.1%
1600-1659	7.5%	7.4%	7.1%	8.3%	7.4%
1700-1759	7.1%	7.7%	6.7%	7.7%	7.3%
1800-1859	5.5%	7.2%	5.3%	5.2%	6.1%
1900-1959	3.5%	4.6%	3.6%	3.2%	3.9%
2000-2059	2.8%	3.0%	2.7%	2.4%	2.9%
2100-2359	5.8%	6.7%	4.6%	4.4%	5.9%
	100.0%	100.0%	100.0%	100.0%	100.0%

Source: OCL

52. The journeys generally show a slow period in the early hours of the day rising to a peak period between 1000-1359 hours, with a little moderation during 1200-1259, and thereafter declining somewhat in the early afternoon. The activity level rises again to an afternoon peak between 1600-1759 hours, before declining to an evening low period. As a percentage of the daily traffic, the Elderly/Persons with Disabilities journeys appear more evenly spread during the day compared with the all passenger patterns which are more influenced by the morning and evening peaks of work related journeys.
53. A comparison of the FB and MTR modes, as mass carriers taken by the general public on school or work journeys, indicates that the morning peak of the Elderly/Persons with Disabilities generally comes after and the afternoon peak earlier than the usual rush hours for other passengers. This suggests that rather than competing in the rush hour traffic, many Elderly/Persons with Disabilities passengers are probably timing their journeys away from the general rush hours, as the shaded slots in the following table show.

Hourly patterns of Elderly/Persons with Disabilities
under the \$2 Scheme and All Passenger journeys

(Hours)	FBs*		MTR	
	Elderly/Persons with Disabilities	All Passengers	Elderly/Persons with Disabilities	All Passengers
0000-0659	5.9%	6.0%	3.5%	2.9%
0700-0759	5.1%	8.4%	4.6%	5.8%
0800-0859	6.2%	7.6%	5.9%	8.4%
0900-0959	7.0%	5.2%	6.5%	6.7%
1000-1059	7.4%	4.7%	6.8%	4.8%
1100-1159	7.4%	4.8%	7.3%	4.8%
1200-1259	7.2%	4.9%	7.0%	5.1%
1300-1359	7.6%	5.2%	7.4%	5.4%
1400-1459	7.0%	4.9%	7.3%	5.3%
1500-1559	7.2%	5.6%	7.1%	5.4%
1600-1659	7.5%	6.4%	7.4%	6.1%
1700-1759	7.1%	8.1%	7.7%	7.5%
1800-1859	5.5%	8.5%	7.2%	10.0%
1900-1959	3.5%	5.6%	4.6%	7.7%
2000-2059	2.8%	4.2%	3.0%	4.5%
2100-2359	5.8%	9.9%	6.7%	9.8%
	100.0%	100.0%	100.0%	100.0%

* NLB excluded as relevant data is not available

54. In terms of actual impact, based on the data available, we have found no evidence to suggest that the Elderly/Persons with Disabilities are unduly competing for critical transport capacity during rush hours. These journeys generally account for a relatively smaller share of the total peak hour traffic, considering the Elderly/Persons with Disabilities constitute about 18.9% of the population. The data below suggests a large proportion of them are probably avoiding the rush hours as much as possible with peak hour travelling largely limited to essential journeys.

Elderly/Persons with Disabilities share of total journeys by hour in October 2018

(Hours)	FBs*	MTR
0000-0659	15.5%	13.4%
0700-0759	9.6%	8.8%
0800-0859	12.9%	7.8%
0900-0959	21.3%	10.8%
1000-1059	25.1%	15.7%
1100-1159	25.0%	16.8%
1200-1259	23.3%	15.3%
1300-1359	23.4%	15.2%
1400-1459	22.7%	15.4%
1500-1559	20.5%	14.6%
1600-1659	18.6%	13.4%
1700-1759	14.0%	11.4%
1800-1859	10.3%	8.0%
1900-1959	9.9%	6.6%
2000-2059	10.7%	7.5%
2100-2359	9.3%	7.6%

* FBs data exclude NLB as relevant data is not available

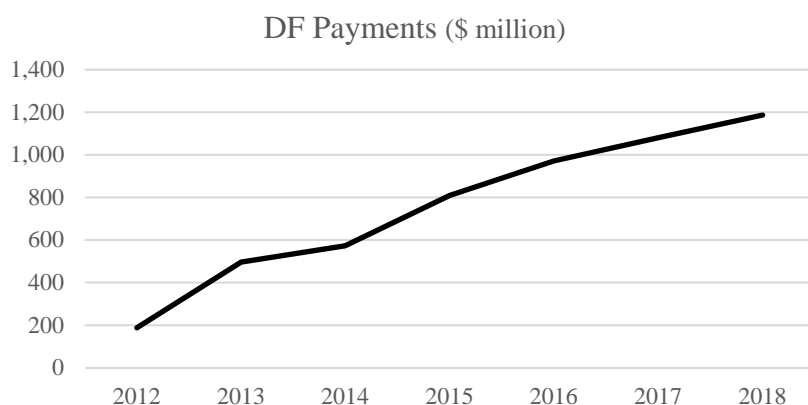
55. Outside of the peak periods, where most people are engaged in school or in-house work activities and transport capacity is much less of an issue, the percentages represented by the Elderly/Persons with Disabilities journeys are higher. This helps to balance the load on the system and enhance the operating economics of the PTOs.

Reimbursement under the \$2 Scheme

56. The Government reimburses the PTOs on a revenue foregone basis, and settles payments regularly. A CSP is operated by OCL on behalf of the Government, currently covering NLB, GMBs and the Ferries. The platform is intended to cover all PTOs on the \$2 Scheme, but MTR and many of the FBs have not joined the CSP at present due to systems constraints and interface problems, especially in handling complicated fare structures.

DF payments

57. Total DF payment since the inception of the \$2 Scheme to 2018 amounts to \$5.3 billion. Annual payments since the inception of the \$2 Scheme are shown in the chart below.



58. The following table summarises the payments made to the PTOs in different modes over the years. More detailed breakdowns are contained in **Appendix E**.

Total DF payments by mode

(\$ Million)	FBs	MTR	GMBs	Ferries	Total
2012	113.5	74.3	-	0.0	187.7
2013	334.5	146.6	-	15.6	496.7
2014	381.6	171.1	-	20.6	573.3
2015	421.6	203.0	160.7	23.7	809.1
2016	444.3	240.3	263.1	24.2	972.0
2017	473.0	276.9	303.4	27.2	1,080.4
2018	509.1	309.2	338.9	29.6	1,186.8
Total	2,677.6	1,421.5	1,066.1	140.8	5,306.0

Source: TD

In 2018, the FBs accounted for 42.9% of the total DF reimbursed, compared with 26.1% for MTR, 28.6% for GMBs and 2.5% for the Ferries.

59. The expenditure on DF represents a small but growing percentage of the Government's recurrent expenditure on social welfare. Total DF paid for 2018 amounts to \$1.19 billion, accounting for about 1.6% of the Government's recurrent expenditure on social welfare, which itself represents 19.3% of total recurrent government expenditure. The following table shows the underlying trend since 2012.

Percentage share of DF in recurrent expenditure on social welfare

(\$ Million)	DF	Recurrent expenditure on social welfare	%
2012	187.7	42,193	0.4
2013	496.7	49,430	1.0
2014	573.3	53,623	1.1
2015	809.1	57,270	1.4
2016	972.0	62,227	1.6
2017	1,080.4	64,899	1.7
2018	1,186.8	75,952	1.6

Source: DF data from TD, Recurrent expenditure data from Hong Kong Budget, adjusted for calendar years

60. The average DF per journey for the Elderly/Persons with Disabilities was \$ 2.7 in 2018, having risen somewhat from \$2.6 in 2016. The average varies considerably among the different modes, ranging from \$2.4 to \$10.3, even more among different PTOs/ routes. The wide disparity is understandable given the range of regular fares applicable, and the fare concessions already put in place by some PTOs before the introduction of the \$2 Scheme.
61. The average DF per month per person for the Elderly/Persons with Disabilities in 2018 was about \$69. The monthly average was lower for the Elderly (\$62) and higher for the Persons with Disabilities (\$141). A detailed breakdown for the month of October 2018, summarised below, is contained in **Appendix F**. This indicates that about 90% of the cardholders had a DF of up to \$200 for the month or 96% up to \$300, although there were some extreme cases running above \$2,000.

Average DF of cardholder in October 2018

DF (\$)	No. of Cardholders			% Distribution			Cumulative %		
	Elderly	Persons with Disabilities	Total	Elderly	Persons with Disabilities	Total	Elderly	Persons with Disabilities	Total
50 or below	715,354	34,602	749,726	57.7	28.8	55.1	57.7	28.8	55.1
50.1-100.0	239,882	20,687	260,514	19.4	17.2	19.2	77.1	46.0	74.3
100.1-150.0	122,657	14,955	137,606	9.9	12.4	10.1	86.9	58.5	84.4
150.1-200.0	68,969	11,590	80,556	5.6	9.6	5.9	92.5	68.1	90.4
200.1-250.0	37,625	9,247	46,875	3.0	7.7	3.4	95.5	75.8	93.8
250.1-300.0	21,572	7,048	28,627	1.7	5.9	2.1	97.3	81.7	95.9
300.1-350.0	12,838	5,376	18,218	1.0	4.5	1.3	98.3	86.1	97.2
350.1-400.0	7,676	3,985	11,663	0.6	3.3	0.9	98.9	89.4	98.1
400.1-450.0	4,871	3,029	7,903	0.4	2.5	0.6	99.3	92.0	98.7
450.1-500.0	3,007	2,298	5,305	0.2	1.9	0.4	99.6	93.9	99.1
Above 500.0	5,244	7,357	12,604	0.4	6.1	0.9	100.0	100.0	100.0
Total	1,239,695	120,174	1,359,597	100.0	100.0	100.0			0

Source: OCL

Future Financial Commitments

62. A baseline projection of the Government's financial commitment under the \$2 Scheme is carried out assuming the \$2 Scheme continues to have the same coverage and eligibility criteria as at present, and based on the same \$2 fare for the beneficiaries. Our projections are summarised below.

Number of beneficiaries

63. The total number of beneficiaries is estimated for the three major groups i.e. elderly residents, Persons with Disabilities and elderly visitors. The elderly residents numbers are available from the long term population projections compiled by the C&SD. It is projected that the number of elderly residents will increase from 1.27 million in 2018 to 1.82 million in 2026 and to 2.16 million in 2031.
64. The Persons with Disabilities numbers are based on a number of linear regressions, using cardholder numbers, separately against time, population and Persons with Disabilities per 1,000 population, and thereafter taking an average. The projection indicates the Persons with Disabilities numbers will grow from the 0.14 million in 2018 to 0.26 million in 2031, with an annual growth rate of about 5%. Compared with the 8.5% during 2012-18, the projected rate is lower, but is not low against the overall population growth rate of just over 0.5%.
65. The elderly visitor numbers are taken from the HKTB statistics, and projected forward based on a linear regression against time. This shows that elderly visitors will rise from the 3.12 million in 2018 to 5.26 million in 2031, with a projected annual growth rate of 4.2%, against 8.7% during 2012-18. This reflects a slower pace of growth from a larger base number. Annual growth in the past decade has been quite erratic, ranging from -5% to +22%. While the current projection may be conservative, the slower growth is not inconsistent with the current economic environment. Since these beneficiaries are only transients in Hong Kong, residents equivalent numbers are also estimated, based on the split between overnight and same day visitors and assuming an average stay of 3.1 days for the former.
66. The detailed results of the projection, summarised below, are shown in **Appendix G**. We note that the residents equivalent number estimated for 2018 for the elderly is very close to the number of active elderly cards in circulation for the month of October 2018, as provided by OCL.

Projected number of beneficiaries to 2031

('000)	2012	2013	2014	2015	2016	2017	2018	2021	2026	2031
Residents										
Elderly	979.9	1,019.9	1,063.8	1,114.6	1,163.2	1,214.6	1,266.2	1,453.7	1,824.3	2,159.5
Persons with Disabilities*	85.0	96.0	109.0	118.0	126.0	132.0	139.0	172.0	219.0	263.0
	1,064.9	1,115.9	1,172.8	1,232.6	1,289.2	1,346.6	1,405.2	1,625.7	2,043.3	2,422.5
Elderly Visitors										
Overnight	1,202.5	1,284.5	1,448.6	1,676.6	1,519.2	1,703.0	1,905.5	2,127.1	2,669.2	3,211.3
Same day	693.5	768.0	924.1	755.1	922.6	934.1	1,215.1	1,356.4	1,702.1	2,047.8
	1,896.0	2,052.5	2,372.7	2,431.6	2,441.8	2,637.1	3,120.6	3,483.5	4,371.3	5,259.0
Total Beneficiaries	2,960.9	3,168.4	3,545.5	3,664.2	3,731.0	3,983.7	4,525.8	5,109.2	6,414.6	7,681.5
(Residents equivalent)	1,078.3	1,130.0	1,188.4	1,249.8	1,305.5	1,364.1	1,424.7	1,647.5	2,070.6	2,455.4
(of which Elderly)	993.3	1,034.0	1,079.4	1,131.8	1,179.5	1,232.1	1,285.7	1,475.5	1,851.6	2,192.4

* Persons with Disabilities based on cardholder numbers as a portion of the eligible persons do not apply or renew their cards.

Number of Elderly/Persons with Disabilities journeys

67. Separate sets of projections have been prepared based on beneficiary groups and on transport modes. The first set has been prepared by taking an average of the results from linear regressions on time and on Elderly and Persons with Disabilities numbers. For the other set, the modal projections for FBs, MTR and the Ferries are based on regressions on Elderly/Persons with Disabilities numbers. The GMB data series is too short for a meaningful regression and we have assumed that GMB journeys will increase with the growth of the overall FB/MTR patronage. The two sets of projections are very close to each other in overall terms and we have consolidated the two by taking averages, with breakdowns spread on a pro-rata basis.
68. Details of the projections, summarised below, are contained in **Appendix H**. Overall, total journeys are projected to grow by 8.4% per year to 2031, or 3.9% in the average journey per person number.

Projected Elderly/Persons with Disabilities journey numbers to 2031

(Million)	2012	2013	2014	2015	2016	2017	2018	2021	2026	2031
(Mode)										
FBs	58.6	161.2	174.2	180.8	187.9	198.2	212.0	305.4	450.6	585.4
MTR	33.3	71.0	82.1	90.0	98.9	110.3	120.1	176.2	270.9	358.8
GMBs	0.0	0.0	0.0	50.7	82.2	91.8	99.9	144.9	217.1	284.1
Ferries	0.0	1.8	2.2	2.4	2.6	2.7	2.9	3.8	5.3	6.7
	91.9	234.0	258.5	324.0	371.5	403.1	434.9	630.2	943.9	1,235.1
(Beneficiaries)										
Elderly	79.6	202.5	222.1	278.9	320.5	348.5	377.0	546.6	825.2	1,083.1
Persons with Disabilities	12.3	31.6	36.4	45.0	51.0	54.5	57.8	83.6	118.7	152.0
	91.9	234.0	258.5	324.0	371.5	403.1	434.9	630.2	943.9	1,235.1

Projected DF

69. The future DF payments can be estimated by applying projected fare levels to the number of Elderly/Persons with Disabilities journeys above, and reduced by the concession fares payable.
70. The average fare per journey has been projected by transport mode based on the 2018 fare level and adjusted by a fare index for each mode. The index series itself is established using a linear regression on time using average fare data from 2008 to 2018, assuming the current fare regulatory regime will continue into the future. A summary of the index is shown below.

Projected average fare per journey index by mode to 2031

(1/1/2008 = 100)	2012	2013	2014	2015	2016	2017	2018	2021	2026	2031
FBs	103.6	106.3	107.0	110.0	110.0	110.1	110.1	115.0	120.9	126.7
MTR	107.4	111.4	115.0	119.6	123.7	125.2	127.2	137.3	152.9	168.6
GMBs	109.9	112.5	116.1	120.1	122.0	123.3	125.4	133.4	145.8	158.2
Ferries	121.5	121.3	124.9	127.8	124.5	129.4	133.8	143.0	157.4	171.8

Source: 2012-18 figures derived from TD data; projected figures are consultant estimates

71. Based on the DF paid in 2018 for each mode, the full fare payment attributable to the Elderly/Persons with Disabilities journeys can be estimated for the year by adding back the \$2 they contribute on each journey. Future full fare payments can be projected forward by adjusting the fare levels with the average fare index above and applied to the projected journeys. The DF

payments can thereafter be derived by deducting the \$2 contribution. A summary of the DF projections to 2031 is shown below. Details are contained in **Appendix I**.

Projected DF payments by mode to 2031

(\$ Million)	2012	2013	2014	2015	2016	2017	2018	2021	2026	2031
FBs	113.5	334.5	381.6	421.6	444.3	473.0	509.1	793.5	1,276.0	1,794.4
MTR	74.3	146.6	171.1	203.0	240.3	276.9	309.2	517.3	948.3	1,458.4
GMBs	-	-	-	160.7	263.1	303.4	338.9	541.2	926.6	1,364.0
Ferries	-	15.6	20.6	23.7	24.2	27.2	29.6	42.3	66.5	93.1
Total	187.7	496.7	573.3	809.1	972.0	1,080.4	1,186.8	1,894.3	3,217.3	4,710.0

Source: 2012-18 figures derived from TD data; projected figures are consultant estimates

Impact on social welfare recurrent expenditure

72. Assuming the recurrent government expenditure constitutes about 17% of the nominal Gross Domestic Product (GDP), and that about 19% of this recurrent expenditure will be on social welfare as at present, the DF expenditure is expected to rise from the current 1.6% to 2.9% of the social welfare recurrent budget by 2031.

(\$ million)	2018	2021	2026	2031
Nominal GDP*	2,842,900	3,066,200	3,913,400	4,994,600
Recurrent Government Expenditure of which Social Welfare	392,696 75,952	517,980 99,143	661,969 126,703	844,859 161,709
Differential Fares % of Social Welfare Expenditure	1,187 1.6%	1,894 1.9%	3,217 2.5%	4,710 2.9%

* Nominal GDP growth assumed at 1.5% for 2020, and 5% a year thereafter

Overseas Experience

73. The overseas experience study covers a number of cities drawn from Asia Pacific, Europe and North America, but with a focus on Asian cities. These include Singapore, Taipei, Shenzhen, Guangzhou, Shanghai, Beijing, Tokyo, Sydney, London, New York, Toronto, and Vancouver. Selection of the cities is largely based on their economic levels, cultural and regional background, and a reasonable expectation based on our past experience on similar studies that useful findings would emerge from the exercise.
74. The study is primarily based on public information available from websites and other publications of relevant public agencies and PTOs. The focus is on the key features of the public transport concessions provided, such as eligibility criteria, coverage, operations, as well as any anti-abuse measures that may be in place. The objective is to draw on the relevant experiences of these cities and any good practices that may be applicable under Hong Kong circumstances.
75. The major findings on the concessions are summarised below, with more details in **Appendix J**. These provide a broad overview of the fare concession arrangements in the various cities. The findings in respect of abuses and anti-abuse arrangements are reported in a separate section below.
76. Almost all major cities reviewed have some public transport concessions for their elderly and Persons with Disabilities, through transport operators often owned by the city governments. This ownership arrangement is quite different from the Hong Kong situation where public transport is largely operated by private enterprises, with the Government playing an overall

planning, coordinating and regulatory role. Many of the overseas public transport operations are also not money making, even not financially self-sustaining, and have to rely on some degree of public funding. This may have some influence on the way they structure their fares or design their concession arrangements.

77. In most of the cities reviewed their elderly and Persons with Disabilities concessions are available only to local residents. The concessions are also extended to tourists in New York, Toronto, Vancouver and in Mainland cities such as Shenzhen.
78. In respect of age criteria, the typical minimum age threshold for elderly concessions is 60 or 65, whereas there is no such limit for Persons with Disabilities. Cities adopting an age 60 threshold include Sydney, Singapore, Guangzhou and more recently Beijing. Most others adopt a threshold of 65, including Taipei, Shenzhen, Shanghai, Macau, Vancouver, Toronto and New York. In Tokyo, where there is a high proportion of elderly people due to population ageing, the threshold is set at 70. London has a split tier arrangement at 60 and at 66 separately funded by different levels of local government, whereby the younger elderly enjoy less subsidy than their seniors. The higher threshold was raised from 65 in recent years to align with the national pension system.
79. Similar to the Octopus Card in Hong Kong, the use of smart cards for the payment of public transport fares is very common among the cities reviewed. These come in a variety of forms, all with a proprietary brand name such as Opal Card (Sydney), Freedom Pass (London), Presto Card (Toronto), EasyCard (Taipei) etc. Most cities require personalised cards to qualify for their elderly or Persons with Disabilities concessions and some including Singapore, Macau, New York and London require personalised cards with photos. Use of anonymous cards for concession travel is not common, Vancouver being an exception. In Toronto, anonymous card holders still need to have personal data input into their cards before they can enjoy concession. Visitors generally require passport identification for access to the concessions.
80. The concessions come in different forms, ranging from free passage to reduced fare based on a fixed amount or a percentage discount. Concessions on different transport modes can also be different. In Sydney a maximum fare payable per day is set, beyond which seniors travel free. In Taipei, there is a free allowance for 60 bus trips a month beyond which a 50% concession fare is payable. There may be time restrictions applicable to the concessions, e.g. in London and New York, and discounts could vary with different time periods of the day (Singapore). The reduced fares are mostly applicable on single trip fares, but in some cases also applicable to daily, weekly or monthly passes. And in Shanghai, having encountered capacity constraints during peak periods with the increased journeys encouraged by their previous concession arrangements, they have now changed to a monthly cash allowance as part of their social security benefits.
81. For Persons with Disabilities, the concessions usually follow those for the elderly, but could vary with the types of disabilities (Sydney). In some cases, the fares of the helpers accompanying the Persons with Disabilities can also be covered (Sydney, Taipei, Toronto), while people with serious mobility problems can qualify for a taxi subsidy (London and Sydney).
82. The findings from the overseas study have provided some useful references to the current review. In comparison, the Hong Kong concession scheme is simple and can be readily implemented. But the simplicity of the arrangement also carries some limitations, e.g. possible abuses with the \$2 Scheme which may be perceived by some as quite prevalent.

Abuses and Misuses of the \$2 Scheme

83. It is not uncommon for any well intended subsidy schemes to be abused in usage due to the often significant economic benefits being offered. In this respect, the current Scheme is no exception and there are many comments received from the community about abuses and misuses by unintended beneficiaries.
84. The common abuses and misuses on the passenger side generally relate to two main types, one involving unqualified users benefiting from the \$2 Scheme, and the other involving unintended uses of beneficiaries. The former relates to the fraudulent use of the benefits, which may require tightening of access, more active inspections and imposition of heavier penalties. The other may just be misuses of some sort requiring clarification of underlying policies, public education, and possibly some tightening of operations. There are also abuses on the PTOs' side, primarily involving some drivers fabricating elderly journeys using elderly A-Cards to benefit from the fare subsidy.

Non-qualified beneficiaries

85. The \$2 Scheme offers qualified beneficiaries a flat concessionary fare travelling on the designated transport modes and routes, with the elderly using either a P-Card or an elderly A-Card, and the Persons with Disabilities using a photo P-Card. It is known that there are passengers who are not currently covered under the \$2 Scheme but still access the benefits fraudulently through the use of an elderly A-Card, or an elderly or Persons with Disabilities P-Card. While the fare evaders may pose as elderly, it is also possible for others to pretend to be Persons with Disabilities who are often difficult to identify by physical appearance, with little risk of being caught as the drivers/frontline staff may have difficulty in checking identity due to various constraints, e.g. manpower, road safety and conflict with passengers.
86. No data on the magnitude of these fare abuses is available, but it is believed that the risk of abuse could be quite high as elderly A-Cards can be freely purchased currently by any person without proof of age or identity. A-cards can also be borrowed or acquired through other channels, such as resale on the internet, for use by anybody with the intent to evade regular fare payments.
87. With easy access to the elderly A-Cards, the situation is further complicated by the limited level of monitoring and inspection possible by frontline staff, and the light penalty even if identified and followed up. We understand there are cases of drivers being ignored by possible offenders when asked for identification, or even threatened with complaining to the authorities, or reprimanded with impolite languages and a violent attitude.
88. Most PTOs have expressed difficulties in performing identity checks. For FBs and GMBs, with a primary and more important driving job to do, most drivers reportedly would simply allow the offenders to pay up when caught, or get off at the next bus stop to avoid continued embarrassment. For Ferries, the enforcement is taken up by pier staff on top of their core duties in monitoring passenger order and in the operation of ferry piers.
89. The powers vested in the PTOs and their frontline staff for enforcing fare collection are different. For MTR, FBs and Ferries, they are empowered to request passengers to produce identification documents. There are also penalty provisions to deter passengers from paying incorrect fares under relevant ordinances. For GMBs, the driver is empowered to refuse entry to his vehicle or order any person to remove himself from the vehicle where he has reasonable grounds to

believe that such person has committed or is about to commit the relevant offences such as dishonestly avoiding fare payment.

90. Whether or not the current level of monitoring and inspection is adequate must be a matter of judgement of the PTOs having regard to the characteristics of their operations, while balancing on the one hand the additional cost to be incurred and the inconvenience to passengers, and on the other, the fare revenue that would otherwise be lost without deterring potential offenders.
91. Fare evasion is a major issue confronted by PTOs around the world and a lot of efforts have been put in many cities into containing its impacts. The evasion activities mainly consist of non-payments, fraudulent use of concession cards, counterfeit cards and invalid payments. In terms of fare revenue lost, the rates of major overseas cities can be quite high. For Toronto the rate was 5.4% (2018) and for Sydney 5.2% (2016). In Singapore, it was around 0.58% in 2008, but has come down very significantly to 0.13% in 2016 due to the introduction of heavy penalties.
92. To counter fare evasion, some major PTOs overseas have adopted a range of measures, including:
 - expanding the inspection team to conduct more routine and ad hoc inspection and enforce penalties;
 - undertaking joint inspection with the police forces to increase deterrent effect;
 - imposing harsh penalty and fines on fare evaders (e.g. AUD \$200-550 at Sydney, USD \$100 at New York, GBP 80 at London, CAD \$235-435 at Toronto, SGD \$50 at Singapore); and
 - introducing public education campaign to raise awareness on the importance of paying proper fares, e.g. through setting up fare evasion warnings on public transport and entrance gates, etc.

Some of these overseas experiences may be worth considering for local application. A summary of the major findings from the overseas study relating to fare abuses is contained in **Appendix K**.

PTO abuses

93. There are also abuses on the PTOs' side, even though these appear to be far in between, and are likely to involve only the smaller PTOs, e.g. in the GMB sector where drivers could benefit personally from falsifying Elderly journeys by tapping multiple elderly A-Cards on the Octopus Reader. There was one incident discovered in 2015 when one GMB driver was found guilty and eventually convicted of criminal offence, and another incident in which two GMB drivers were found guilty and convicted in 2019.
94. Over the years the number of cases that need to be referred to the police for investigation or possible prosecution are reportedly quite small. This may reflect the effectiveness of the monitoring arrangements put in place by the Government to safeguard the financial integrity of the \$2 Scheme.
95. There is a requirement for regular audits on aspects of the financial accounts relating to the DF and the internal controls relevant to the \$2 Scheme, and all PTOs are obliged to follow. They have a choice to use their own auditors at their own cost or paid by the Government, or alternatively have their audits performed by a government appointed auditor with the professional fees charged to the \$2 Scheme.

96. On a regular basis, the Government also look closely at abnormal transactions and follow up on suspected fraudulent cases, e.g. multiple transactions of the same Octopus card within a short time period, transactions beyond normal operating hours, etc. These exception cases are tedious to follow up but are mostly resolved on further enquiry. The process itself nevertheless involves substantial time and resources from both the Government and the PTOs.

Unintended uses by beneficiaries

97. These generally refer to the observed phenomenon where beneficiaries take short rides on long bus routes rather than on available shorter services because of time and convenience, but without regard to the additional cost to the \$2 Scheme and possible impact on service operations. The phenomenon arises because there is no economic consideration in the routeing decisions, this given the beneficiaries still pay the same \$2 fare whether travelling on short or long routes.
98. We understand there are public concerns on this practice from the community, partly because of the inherent waste of public funds based on the current reimbursement arrangement, but also because of the competition for seats on cross harbour, express and other long haul routes during peak periods. The frequent boarding and alighting of passengers within a short distance also has an impact on the operational efficiency of long haul routes.
99. There is also the problem of beneficiaries not being charged a section fare when there is one applicable, resulting in the PTOs being reimbursed an overpayment from the \$2 Scheme. This happens because neither the drivers nor the beneficiaries have an obvious incentive to initiate the section fare. On the one hand, the drivers do not know whether the passengers are going for a short ride for which a section fare may be chargeable, neither do they have the responsibility to remind the passengers. On the other, the beneficiaries do not see the need, or perhaps simply forget, to invoke the section fares since either way they will be paying a flat \$2 fare only.
100. The above practices are perhaps not exactly abuses but unintended uses. Nor are these practices exclusive to the beneficiaries since most other passengers would also occasionally take long route services for short rides when needed to beat time, or fail to invoke any section fares for short journeys altogether, especially when travelling in a congested bus compartment.

Magnitude of the problem

101. Overall we believe the current abuses of the \$2 Scheme from the PTOs' side is probably quite small. Even for the small GMB operators where there is potential for more abuses, the problem is probably contained given TD's efforts and the deterrent effect of the court cases mentioned above.
102. Most of the abuses on the \$2 Scheme will have come from the passenger side, as fare evasion or similar abuses have always been a problem for public transport internationally. Currently there is no official data in Hong Kong as to the prevalence of the problem. The Government regularly conducts surveys on possible abuses on FBs, MTR, GMBs and Ferries, and so far the survey results suggest that any fare abuses that might have been committed are probably very minimal given the small number of cases uncovered in these surveys.
103. The recent surveys conducted in 2017-2018 indicate that the percentage of abuse cases is quite small, ranging from 0.01% to 0.22% depending on the mode, which is well below the 5% of some other major overseas cities.

Percentage of abuse cases by mode

	Number of Elderly/Persons with Disabilities	Number of Abuse Cases	% of Abuse Case
FBs	37,090	80	0.22%
MTR	45,807	51	0.11%
GMBs	33,035	12	0.04%
Ferries	13,830	1	0.01%

Source: Survey on the Operation of the Government Public Transport Fare Concession Scheme for the Elderly and Eligible Persons with Disabilities, TD

104. Despite these positive findings there continues to be concerns about the potentially large number of abuse cases that might have slipped attention. Given the limitations of such surveys, we believe the above figures probably understate the real situation to some extent, judging from the many complaints raised by other passengers and the general perception of the problem in the community. In the following paragraphs, we attempt to provide a rough estimate on the probable magnitude of the problem for reference purposes.

Non-qualified beneficiaries

105. To provide an alternative guestimate to help size the local fare evasion problem, we have conducted a rough benchmarking exercise using limited available overseas data based on a comparison of fare evasion and theft rates, which should provide some reference value given these acts are similar in nature in terms of unlawful intention to take money or other objects of value from others.
106. The Hong Kong theft rates have historically been somewhat higher when compared to Singapore, but are significantly lower than those of Canada, Australia and the United Kingdom (UK), as shown in the United Nations (UN) statistics below. Assuming a close relationship between fare evasion and theft rates, the Hong Kong fare evasion rate would likely be higher than that of Singapore, but lower than those of Canada, Australia and UK.

Comparison of Theft Rates

Thefts/100,000 population	Hong Kong	Singapore	Canada	Australia	UK (England/Wales)
2012	474	331	1,475	2,245	2,407
2013	442	308	1,380	2,359	2,330
2014	396	297	1,368	2,281	2,209
2015	377	275	1,398	2,358	2,182
2016	349	243	1,409	2,460	2,283

Source: UN Office on Drugs and Crime

107. Based on our overseas study, the latest available fare evasion rates are about 5.4% for Toronto, 5.2% for Sydney, 1.9% for London and 0.6% for Singapore. Given the different local circumstances and the stringent measures in place against fare evasion, we do not believe the Hong Kong rate would be as low as the levels achieved by Singapore.
108. If the rates for Toronto, Sydney and London are to provide any guidance, then the Hong Kong evasion rate would be somewhere between 1.9 - 5.4%, possibly closer to the lower end of the range given Hong Kong's lower theft rates, but not so close to the London rate given their stronger evasion prevention arrangements in place, such as the extensive deployment of revenue protection personnel. Since no direct comparison is possible, we have assumed the fare evasion rate of Hong Kong to be about 2 - 2.5% in estimating the impact of fare evasion on DF payments,

at roughly \$24 - 30 million for 2018. The evasion rate assessed is higher than those derived from the TD surveys, but it may not be unrealistic given the ready availability of anonymous A-Cards for use by potential fare evaders without proof of age and identity, and the low level of enforcement and penalties in place against evasion.

Short rides on long bus routes

109. There is no readily available data on the number of beneficiaries taking long-haul buses for short trips. In order to understand more about the situation, TD commissioned a survey in January 2019 to collect operational information on the travelling pattern of the beneficiaries on long-haul bus routes. The survey covered 109,371 passengers² on 1,634 long haul bus trips with adult fare at \$8 or above. Overall about 13% of the Elderly/Persons with Disabilities passengers on these bus routes were found taking short journeys. This percentage, when compared with only 3.2% for other passengers, suggests that the practice is probably more common among the beneficiaries.
110. Further analysis suggests that of the Elderly/Persons with Disabilities who took short trips on long-haul routes, about 23% involved routes without convenient alternatives, while 77% took routes that operated at comparably more frequent services, and hence, more convenient for the passengers.
111. Based on these survey findings, TD has broadly estimated the extra revenue forgone on the \$2 Scheme resulting from taking short trips on long-haul routes was in the range of \$2.03 to \$2.53million, representing 1.8 – 2.3% of total DF of the month³. We believe this estimate, amounting to some \$21-27 million a year, is probably not unreasonable.

Failure to apply section fares

112. We have not attempted to estimate the likely impact of the failure or omission to properly charge for section fares on FBs or GMBs. This is because there are currently no data available on the number of journeys which qualify for section fares. We believe nevertheless that since section fares are only available on some of the routes, the impact of this problem will likely be small in overall terms.

Public Engagement Sessions

113. A public engagement exercise has been conducted as part of the Review to seek the views from different stakeholder groups on the operation of the current Scheme and provide a sounding board on possible changes for the future.
114. At these engagement sessions, organised in collaboration with the LWB and TD, we have reviewed the development of the \$2 Scheme since its inception, presented the issues encountered, and facilitated floor discussions. Considerable efforts have been put into the preparation and logistical support of these sessions, including venue reservation, compilation of invitation lists, development of discussion agenda, and event registration and management.

² Among 109,371 observed passengers in the survey, 83,848 (76.7%) showed cooperation and participated in the survey.

³ The ballpark amount of extra revenue forgone is projected based on the patronage situation in January 2019. It compared the fares of the long-haul routes with both the highest and lowest fares of the alternatives on the 196 long-haul bus routes with beneficiaries taking short-trips in the surveys.

115. A total of five public engagement sessions have been conducted to cater to the various stakeholder groups. These cover the PTOs on the \$2 Scheme and currently not on the \$2 Scheme, concerned groups for the elderly and for Persons with Disabilities, and members of the District Councils, Area Committees and Rural Committees. The concern groups have also been requested to pass on the invitation to others who are beneficiaries under the \$2 Scheme. To provide more flexibility to the concern groups for Persons with Disabilities and for the District Councillors and Area Committee/Rural Committee members, the two separate sessions originally planned for these groups have been restructured into two combined sessions with different time slots.
116. A summary of the participation numbers at the engagement sessions is shown below.

Participation at public engagement sessions

Stakeholder Groups	Invitation	Number of organisations invited	Number of participants
PTOs under the \$2 Scheme	All PTOs under Scheme and OCL	159	32
PTOs not under the \$2 Scheme	Tramways, RMBs, Non-franchised buses, Residents' Services and Kaitos	1,927	25
Concern groups for the elderly and beneficiaries	Concern groups for the Elderly	152	33
Concern groups for Persons with Disabilities and beneficiaries	Concern groups for Persons with Disabilities	216	32
District Council/ Area Committee/Rural Committee members	All District Council/ Area Committee/ Rural Committee members	45	11

117. The wide range of participants present and the generally high quality of discussions at the events have provided a reasonably balanced representation of the current community views on the \$2 Scheme. To supplement the engagement sessions, we have also conducted individual interviews with selected stakeholders to follow up some of the views expressed and to sound out possibilities. These mainly involve representative PTOs.
118. The comments and suggestions from the public engagement exercise are summarised below under different topics, with more details in **Appendix L**.

Enhancements to the existing Scheme

119. A suggestion from the beneficiaries is to extend the \$2 Scheme to cover people aged 60-64, whether or not in employment, possibly with the concession fare set at higher than \$2 if necessary. It is considered that more activities at this age group would keep people healthier, with less demand for medical and residential care services eventually.
120. Another suggestion by some is to extend the \$2 Scheme to cover the Airport Express Line (AEL) and MTR lines to and from Lo Wu and Lok Ma Chau as the elderly also need to travel overseas or to the Mainland for holiday or other purposes. There are however others who consider the \$2 Scheme should better cover only domestic journeys as people with the means to travel abroad or outside of Hong Kong must already have enough resources themselves to cover their journey to the airport or the border.

121. Similar to the Public Transport Fare Subsidy Scheme (PTFSS), it has been suggested that the \$2 Scheme should extend to cover RMBs, Residents' Services and Kaitos as long as their fares are regulated and the relevant reporting criteria prescribed by the Government met.
122. For the Persons with Disabilities, currently only those with 100% disabilities under CSSA or with DA can benefit under the \$2 Scheme. To help reduce the commuting cost of other Persons with Disabilities, there is suggestion to extend eligibility to all registered Persons with Disabilities, so those assessed with less than 100% disabilities could be included. Others have suggested that the \$2 Scheme should also cover caregivers accompanying Persons with Disabilities on their journeys. The concession for these helpers can be less than for the Persons with Disabilities themselves, possibly to be paid in the form of an add-on to the monthly CSSA/DA.
123. There are also suggestions to fine tune the current Persons with Disabilities P-Card renewal process for those eligible Persons with Disabilities who have been medically assessed to be permanently disabled. Under the existing renewal arrangement set by MTRC, these Persons with Disabilities are required to renew their Persons with Disabilities P-Card every five years. As it takes time to complete the procedures, the process is becoming a burden to some beneficiaries. It has been suggested that the renewal frequency could be reduced, and for those assessed with permanent 100% disabilities, there should be no real need for regular renewal. For eligible Persons with Disabilities whose disability status need to be reviewed, a related suggestion is for their Persons with Disabilities P-Cards to have a somewhat longer validity beyond the expiry of the current disability assessment. This would allow them to continue with the benefits in the interim as their disability assessments and therefore eligibility for the \$2 Scheme are being reviewed.
124. The major PTOs not already covered by the \$2 Scheme consider their inclusion in the \$2 Scheme would offer more choices for the elderly and Persons with Disabilities. They apparently all want to be included in the \$2 Scheme. The Hong Kong Tramways consider they have been operating under a difficult environment since the introduction of the \$2 Scheme as elderly passengers are lost to other transport modes as the effective fares of these competitors come down due to the subsidy. While their fare for elderly passenger is currently below the \$2 concessionary fare, they aspire to be included in the \$2 Scheme as their fares rise in the future.
125. The RMB operators consider that they will be able to provide a more appropriate transport mode for the elderly to choose from based on convenience and travelling time. They suggest it is unfair for their business if they are not included under the \$2 Scheme as many elderly passengers have been diverted by the \$2 Scheme to other transport modes. Several of their trade associations believe they could negotiate suitable regulatory arrangements with the Government based on the model of current PTFSS, and help monitor the conduct of their members to avoid breach of the requirements.
126. For the major Residents' Services, they consider their routes should be covered under the \$2 Scheme for the benefit of their residents. A special case cited concerns a particular residential estate where its ferry operation is covered but not its bus operation, resulting in many elderly opting for a circuitous ferry routeing to minimise transport cost.

Fare abuses

127. There have been a lot of comments on abuses in connection with the \$2 Scheme, which include outright offenses involving non-qualified persons benefiting from the \$2 Scheme through deceptive means, as well as misuses by qualified persons e.g. taking short journeys on long bus

routes, or not requesting drivers to charge section fares where applicable. The general feedback seems to suggest abuses of the \$2 Scheme are not uncommon from the experience of the passengers and PTOs, although there is no reliable indication of the extent of prevalence.

128. There is some concern on the apparent impact of elderly journeys on peak period public transport capacity, and on visitors also benefiting from the \$2 Scheme. There are others who are concerned that some beneficiaries still in active employment would benefit disproportionately from the subsidy provided at the expense of public funding, an outcome which is not aligned with the specific policy objective for the \$2 Scheme.
129. There are nevertheless suggestions not to over react in addressing the abuses by setting too many restrictions which could impact on the effectiveness and easy operation of the \$2 Scheme. There should also be a balance between the seriousness of the abuses and the cost effectiveness of the remedies. Some suggest that it would be preferably to be more generous towards the elderly who have as a whole made major contribution to the community in the past.
130. There is suggestion from some that extensive use of the \$2 Scheme for work purposes may not be a problem given the elderly are encouraged to take on employment. There are also supporting views on the eligibility of visitors, citing tourism promotion as another government objective and that some Mainland cities also provide elderly benefits to Hong Kong residents. There are yet others who consider that if there are other policy objectives to meet, it may be more appropriate to set up some other schemes for their specific purposes.
131. In respect of monitoring and inspection, some suggest the PTOs should bear more responsibility for closer inspection. The PTOs on the other hand cite considerable difficulties in carrying out inspection due to the predominant use of A-Cards, considerable passenger resistance against inspection, onerous demand on frontline staff monitoring abuses, and with the exception of MTRC, the lack of a legal capacity to impose penalty.
132. A number of measures have been suggested to help reduce abuses:
 - Implement mandatory use of the P-Card to eligible passengers under the \$2 Scheme;
 - Set a reasonable maximum number of journeys per day, or fixed dollar allowance a month, to prevent excessive use of the \$2 Scheme;
 - Implement new technology, such as Artificial Intelligence, to increase inspection efficiency and effectiveness rather than solely rely on manual inspection by frontline staff;
 - Set up a government inspection team (similar to the tobacco and alcohol control office) to conduct additional inspections more frequently;
 - Introduce heavier penalties for the fraudulent use of the \$2 Scheme, including pursuing criminal prosecution, with PTOs empowered to more proactively enforce inspection and impose penalty, similar to the powers of MTRC under its by-laws; and
 - Introduce more public education to promote the lawful use of the \$2 Scheme, and to alert users on the impact on public funds and on public transport operations due to various misuses.
133. A suggestion in respect of short rides on long routes is to increase the current \$2 fare for longer routes to bring back some economic consideration into the route choice decisions. On the other hand, there are others who consider the elderly too need flexibility and there should be no restriction for them to travel on routes that are more convenient to them. Some consider it might be better for all passengers if the PTOs increase frequency on their shorter routes so people have a choice.

134. As regards section fares, it is suggested that the onus to invoke available section fares on short journeys should always be with the passengers. But if the elderly are charged the same \$2 fare anyway under the \$2 Scheme, there is little incentive for them to request the driver to charge the section fare. An appropriate message on the buses to alert the elderly, with perhaps some public education, may well provide a remedy.

Mandatory use of P-Cards

135. The general views seem to favour the mandatory use of the P-Card given the apparent prevalence of abuses by some non-qualified passengers. From the PTOs' perspective, unless obvious, it will be difficult to ascertain if a passenger using an A-Card is a qualified person under the \$2 Scheme without identity proof. This will be easier for P-Card users, although it is still difficult to confirm if the passenger is the actual cardholder if there is no photo on the card.
136. For passengers, there seems to be no major objections to the use of P-Cards, although the inconvenience of changing from existing A-Cards may be a complication. There is also little concern about the use of the P-Card data, which is perceived more as an obligation confirming their qualification for the benefits under the \$2 Scheme.
137. To facilitate frontline monitoring/inspection process, passengers under the \$2 Scheme should customarily show their P-Cards to drivers after tapping to avoid unnecessary disputes should the need for inspection arise. It is suggested that some public education on this may be necessary. To assist with identification, the P-Cards of eligible passengers under the \$2 Scheme should have photos similar to the Persons with Disabilities P-Card, and the latter could also include the user's SWD registration numbers.
138. The mandatory use of P-Cards can be introduced in stages, with only applicable P-Cards under the \$2 Scheme in use after a specified date. Existing Elderly A-Cards can be converted to P-Cards free of charge within a reasonable period prior to that date, and some incentives could be considered to help accelerate the process. It may also be possible to combine the P-Card with the Senior Citizen Card (SCC) or the Registration Card for People with Disabilities, thus simplifying the relevant application processes.

Impact on services during peak periods

139. It is suggested by some that the additional passenger volume of elderly and Persons with Disabilities induced by the \$2 Scheme will add to the congestion on public transport during peak periods and increase pressure for more frequent services which may or may not be workable for PTOs. Too many elderly and Persons with Disabilities on board during peak hours may also increase boarding/alighting time at bus stops, with consequential delays to bus schedules and longer waiting time for all passengers.
140. To avoid adding to the peak traffic, it has been suggested that the elderly should be encouraged to schedule their travel away from the peak periods. A suggestion is to influence the travelling behaviour through a fare differential, for example with a discount for non-peak periods.
141. From the perspective of the beneficiaries however, most would avoid travelling in congested public transport during peak periods as much as possible. But they would prefer not to have any restrictions imposed under the \$2 Scheme as some may still need to go to work, attend medical appointments, or join social activities from time to time during peak periods. For the PTOs, they consider it would be difficult to define peak hours as these can be quite different for

different routes. They also consider the elderly too have a genuine need to use public transport during peak hours for various purposes.

Eligibility of visitors

142. As regards eligibility of visitors under the \$2 Scheme, the general view seems to be that the \$2 Scheme should be restricted to only Hong Kong residents, having made past contribution to the local community, and not extended to overseas visitors. A number of overseas examples have been cited where elderly public transport benefits are not extended to visitors.
143. It has been suggested that if the intention is to promote tourism by offering public transport concessions, this could be done through a separate scheme devised for the purpose. It is nevertheless noted by some that since Hong Kong elderly also enjoy fare concession in some Mainland cities, a reciprocal arrangement for Mainland visitors under the \$2 Scheme is perhaps not inappropriate.

Addressing the financial burden of the \$2 Scheme

144. In respect of the increasing financial burden of the \$2 Scheme, many consider this to be a natural development, but is an issue for the Government to address against the backdrop of an ageing population.
145. It is suggested that some relief on government funding will be possible if the PTOs, who are perceived as benefitting from the \$2 Scheme through increased patronage, should share part of the financial burden through accepting a lower fare reimbursement percentage. A related suggestion is for the Government to tighten up fare adjustments in future so a lower differential will need to be reimbursed.
146. The PTOs however are concerned about the growing financial burden on their operations caused by their own elderly fare concessions due to the growing number of elderly users. This is because rather than receiving the full fare, they can only recover the elderly fare from these passengers. And if the burden becomes unmanageable, and there is no assistance from the Government, they might need to review their concessions.
147. Some suggest an upward adjustment of the \$2 fare may well be needed, possibly with different tiers of concession fares for different elderly age groups. Another suggestion is to set the daily maximum number of journeys for beneficiaries under the \$2 Scheme, beyond which a higher fare will be chargeable.
148. Another suggestion is to pay a monthly fixed cash subsidy so beneficiaries can have more flexibility deciding on their best transport modes and routes. This could also avoid some of the deficiencies in the existing scheme such as short ride on long routes, impact on peak periods and need for more monitoring and inspection. For simplicity, it is suggested the cash subsidy may be distributed with the monthly welfare payments such as CSSA, DA or Old Age Allowance.

Introduction of additional e-payment systems

149. There has been little feedback from beneficiaries as regards the possibility of introducing other e-payment systems for the \$2 Scheme in addition to the Octopus Card. This is understandable given these new systems are not yet commonly used for fare payment in public transport. The general view from the PTOs is there is need to be cautious with the new e-payment systems

until these are fully introduced into the local market. A defining criterion for including them under the \$2 Scheme will be their capability to verify the identity of the beneficiary. The PTOs also consider that if other payment systems are to be included in future, there may be need to revamp the existing CSP arrangement for easier management, maintenance and modification, for which they are not prepared to bear additional cost.

Policy Options and Recommendations

150. On the basis of the background review, and supported by the reference information gathered in the overseas study and the public engagement exercise, a number of policy options have emerged, as set out below. We envisage these would help to address the key issues encountered by the \$2 Scheme while responding as much as possible to the community's aspirations. We suggest they can be considered further for possible implementation having regard to resource constraints, priorities and other policy considerations.
151. In developing these options and recommendations, we have based our analysis primarily on historical and factual data. Where relevant figures are not available, we have made necessary assumptions based on professional judgement for the sole purpose of illustrating the magnitude of the issues involved or the impact of our suggestions or recommendations. These include for example assumptions underlying future projections, which may or may not closely align with those adopted by the Government.

Reduction of abuses and misuses

152. Based on our analysis above, possible abuses and misuses of the \$2 Scheme may need addressing more proactively if the escalating public funding required for the \$2 Scheme is to be better protected in the future. Judging from the findings emerging from the review, there are many possibilities which may worth further consideration for implementation. These include:
- Strengthening current monitoring and inspection arrangements;
 - Introducing mandatory use of the P-Card with photo
 - Requiring the showing of SCC alongside A-cards at the point of use;
 - Applying technology solution to confirm passenger/cardholder identity;
 - Stepping up inspection by PTOs focusing on high DF modes/routes;
 - Deploying dedicated teams to add extra layer of inspection and enforcement;
 - Imposing heavier penalties to deter fraudulent use of the \$2 Scheme; and
 - Enhancing public awareness on the proper use of the \$2 Scheme.

Strengthening monitoring and inspection of PTOs

153. The Government's current anti-abuse arrangements for the \$2 Scheme is structured under two levels, separate for the PTOs and the passengers. At the PTO level, the TD relies on regular audits undertaken by external auditors to safeguard the integrity of the financial transactions and reporting systems, and on the exception reports provided by OCL to flag up abnormal transactions for further investigation. In addition, field inspections and surveys are also performed by TD on the PTOs to help identify potential irregularities.

154. From our discussion with TD and the PTOs, the current arrangements appear to be quite effective and there have only been very few cases where operator abuses are identified and prosecuted as incidents involving personal gains are rare. We understand most of the incidents requiring investigations have eventually been resolved upon further verification / clarification with the PTOs concerned. Some others require an adjustment in the amount of reimbursement, but these generally involve relatively small amounts. In view of this, some of the PTOs consider the current arrangements may be too stringent and burdensome for their operations. On the other hand, the internal resources to support the current arrangements are also becoming stretched.
155. We understand TD has been adopting a risk-based approach in prioritizing its inspection efforts, with large-scale PTOs and PTOs with exceptions reported being inspected first. We suggest TD could also focus more in future on additional factors such as routes with high DFs or PTOs with the personal remuneration of their frontline staff linked to passenger revenues.

Facilitating frontline inspection

156. At the passenger level, anti-abuse is largely the responsibility of the frontline staff of the PTOs, mainly drivers and inspectors, whose efforts are constrained by their tight routing schedules, and a reluctance to enforce inspection and penalty measures due to passenger resistance and in some cases, the lack of clear empowerment under a suitable legislation.
157. We suggest efforts at the frontline could be enhanced and made easier if it is made mandatory for the beneficiaries to show their P-Cards to the frontline staff after they tap their cards to pay for their fares, and for those using the A-Card, to show their SCC as well for ready inspection. This would save the beneficiaries the embarrassment of being randomly asked to show their credentials to enjoy the \$2 Scheme, while providing some empowerment to the frontline staff to act on suspicious cases more proactively. Based on the current SCC numbers in circulation, we roughly estimate that the card is currently used by the great majority of elderly residents in Hong Kong.
158. An analogy to the above would be the payment of medical fees at Hospital Authority hospitals and clinics where patients as a rule have to show their Identity Cards to prove their entitlement to pay at the local resident rates. We understand elderly people are used to showing their SCCs to enjoy all sorts of priority services or concessions provided by private businesses and the Government, and there seems no reasons why showing their SCC to travel under the \$2 Scheme would unduly inconvenience them.
159. We note nevertheless that if the beneficiaries do not want to show their SCC when boarding, there are still difficulties for the drivers to perform identity checking given various operational constraints, including road traffic, road safety, delay in bus journey and inconvenience caused to other passengers. As such, the showing of the SCC can only be an interim measure for abuse reduction, and in the long run, the adoption of the photo P-card for easy identification may be a more appropriate solution.

Strengthening independent field inspection

160. The PTOs should also be encouraged to strengthen their fare inspection arrangements with dedicated teams to perform field inspections more frequently especially on routes with a higher risk of fare evasion. They themselves have an interest in this as any evasion will be a cost to them since they will only be able to recover the elderly fares under the \$2 Scheme, against the full fares they would have otherwise collected. It will be for them to balance any cost of

strengthening their inspection arrangement with the extra fare income that would result as potential fare evaders are discouraged by the higher risks of being caught and subject to penalty and embarrassment.

161. We understand Singapore has over 1,300 inspectors carrying out field inspections on their public transport network while Transport for London (TfL) in UK has at least 200 revenue protection inspectors for its bus services. Reportedly the latter pays an incentive to these officers from the penalty fares collected, an example which may not be practical to duplicate locally. We do not have access to the actual inspector numbers at the PTOs or their full time equivalent for comparison, although it may be useful for this provision to be reviewed.
162. A related option to consider is to establish an extra layer of independent field inspection to supplement the efforts being put in by drivers and inspectors. This can be structured as a government initiative or a joint effort with the PTOs. But the priority should always be for the PTOs to upgrade their inspection efforts themselves.
163. TD currently undertakes regular field surveys in collaboration with the PTOs through its contractors in an attempt to monitor fare evasion on the \$2 Scheme. While the coverage of these surveys could be enhanced so evasion activities can be better assessed, we believe holding these surveys more frequently with a focus on high DF routes will have some deterrent effect on potential offenders if they observe the efforts being put in by the Government and the PTOs and realize their increased risk of being identified.

Mandatory Use of the P-Card

164. Much of the abuse problem probably originates from the use of the elderly A-Cards which can be purchased for use by anybody whether or not eligible under the \$2 Scheme, and which make fare evasion so much easier. We believe a fundamental anti-abuse measure would be to phase out A-Cards and require the mandatory use of the photo P-Card for the \$2 Scheme. This should discourage most of the unintended beneficiaries as the risk of being detected and taken to face charges is so much higher. Most overseas countries with a similar concession scheme typically also require an elderly card identifiable to the individual beneficiary as evidence of eligibility. The suggestion is generally supported by the PTOs and other stakeholders who participated in our public engagement sessions.
165. Apart from serving as a more reliable payment instrument for the \$2 Scheme, the photo P-Card has other advantages which may be of importance in future. For example, the P-Card can also be developed into a multi-functional card that facilitates access to elderly benefits and concessions offered in the community. A simple way to do this is to incorporate the SCC into the new P-Card, thus providing access to various benefits accorded to SCC holders, including concessions, discounts or priority services offered by government departments, public organisations and over 2,600 private businesses.
166. Where needed, the new P-Card could also serve as an economical means for the elderly to access other benefits which may be considered from time to time under different elderly initiatives or special circumstances, e.g. cash grants, shopping vouchers, etc.
167. The P-Card will enable user based journey data to be collected to support better research and planning for the \$2 Scheme in future. This will open up other options to introduce transport or other subsidies in a more flexible way or to put economic incentives back into the \$2 Scheme e.g. to cap journey numbers or monthly subsidy under the \$2 Scheme. The changeover to P-Card would also provide an opportunity and effective means for the exclusion of elderly visitors

from the \$2 Scheme if the Government so decides. Currently elderly visitors can enjoy the concession under the \$2 Scheme despite not being intended beneficiaries. There is however no possibility to distinguish visitors from resident users at present due to the use of the A-Card for the \$2 Scheme.

168. It has been suggested the elder A-Card should only be sold to elderly persons with proof of eligibility, e.g. an Identity Card or SSC. We believe this should reduce fare abuse a little and can be adopted as an interim measure. But it is unlikely to provide a long term solution if these cards can still be purchased and passed on for use by other people.
169. The major challenge of the changeover to the P-Card is in implementation as the great majority of the current beneficiaries will need to apply for a P-Card upon phasing out of A-cards. The P-card would inevitably involve the collection of some personal data although most beneficiaries will acknowledge that some personal data will somehow have to be made available to prove eligibility, as is similar for other subsidy schemes where eligibility needs to be established.
170. As at end 2018, there are about 3.6 million elderly cards in circulation, of which 3.3 million are A-Cards. If a decision is made to go for mandatory use of the P-Cards for the \$2 Scheme, there is no need to issue this number of cards. This is because each elderly resident can only use one P-Card for the \$2 Scheme while only a small proportion of visitors is expected to change over given the very infrequent use of their cards. But arrangement will have to be made to at least issue P-Cards for the 1.3 million elderly residents with minimum disruption and inconvenience within a reasonable time period.
171. If visitors continue to be eligible for the \$2 Scheme in future, there will also be need to issue P-Cards for an estimated 0.3 million elderly visitors⁴. These include mostly same day visitors from the Mainland, who are likely to visit Hong Kong more frequently and therefore will potentially benefit from the \$2 Scheme more. Most other visitors are infrequent visitors and are much less likely to spend time and money to apply for a P-Card which they may or may not use again for a long time.
172. Depending on the card issuing capacity of OCL, it may not be practical to issue this number of P-Cards within a short period and a reasonable card issuance programme will need to be developed in consultation with them closer to implementation. There may also be cost involved. Currently OCL charges P-Card applicants a handling charge of \$20 on each card issued, on top of a \$50 refundable deposit and a \$30 initial stored value.
173. We believe an implementation period of about 18 months should be achievable assuming additional effort is put in by OCL and its contractors. We note OCL currently issues more than 2 million cards a year although these are predominantly A-Cards. The issuing of the P-Cards would inevitably take more time given the technical and logistical complexities in developing the required systems and for processing and issuing the large number of P-cards. If it is intended to shorten the implementation period, we suggest the Government could review the programme closer to time to see if certain processes could still be carried out in parallel, or additional resources could be put in to increase processing capacity. We note the core systems modification tasks at OCL and at the PTOs may well be difficult to accelerate however.

⁴ Estimated on the basis of same day elderly visitors who are more likely to be frequent visitors that would opt for a P-Card. Currently about 39% of elderly visitors are same day visitors. Also assuming the average elderly resident holds 1.2 cards each and the rest by elderly visitors, about 25% of all elderly visitors would have an elder card. This implies about 0.3 million of the 3.1 million elderly visitors would potentially opt for a P-Card (or $3.1 \times 25\% \times 39\%$)

174. If the \$2 Scheme is to be extended to the aged 60-64 group, an additional 0.6 million P-Cards will have to be issued. Since these new beneficiaries will aspire to enjoy the \$2 Scheme as soon as practicable and they are likely to be more frequent travellers as compared to existing beneficiaries, we suggest they should be required to apply for P-Cards first. The early adoption of the new photo P-Card by the new beneficiaries would also encourage the existing beneficiaries to apply as soon as possible when their changeover to the P-Card is due. There have been some suggestions to allow the 60-64 group to use the A-Card for a limited period initially so that they can benefit from the \$2 Scheme early before changeover to P-Card. We are however not in favour of this course of action given the increased difficulty this will bring to abuse monitoring, and in view of the considerable financial implication of extending the \$2 Scheme to cover this age group arising from their likely much higher frequency of travelling than existing beneficiaries. Once this new group of beneficiaries is allowed to use A-Card upon their first admission to the \$2 Scheme, it would also be very difficult to persuade them to switch to the P-card later on. To ensure an orderly process and avoid last minute rush, it is possible to prioritise the applications within the 60-64 group, say in batches with precedence for the older applicants, although there might be technical complications in this as the systems at OCL and the PTOs could require multiple settings.
175. Whether to go for a full-fledged changeover to the P-Card for the existing 1.3 million beneficiaries at the same time as the 60-64 age group should take into consideration a number of factors. Cost is probably less of an issue because a major cost driver (i.e. systems modification at OCL and at the PTOs) is quite independent of the number of cards to replace. Rather, it is possible that some existing beneficiaries, especially the older elderly, may genuinely be inconvenienced by the changeover more than the others due to various factors such as low actual usage of public transport due to age and health condition, lack of ready assistance for changeover, etc. A possible option is to allow a longer period to retire the existing A-Cards by specifying a future expiry date for the A-Card regime, so that a smaller number would need to change when the expiry date comes. While this alternative arrangement will delay the benefits as described in paragraphs 164 – 167, it would minimize the perceived disruption and hence anxiety among the older elderly, and provide relief to operational burdens during the initial time-critical changeover period. As this is not just an operational decision, we recommend that a holistic approach should be adopted when the Government makes a decision on the pace and modality of implementation.
176. We suggest the SWD and some NGO involved in elderly care could help in the implementation by assisting the elderly in the P-Card application process. In addition to venues assigned by MTRC and other PTOs, suitable government facilities and even mobile stations at selected locations could also be considered to reduce the inconvenience to the elderly in the transition process.
177. If necessary, some incentives could be considered to encourage the elderly to change over to the P-Card as soon as practicable and to compensate for the inconvenience that may be caused to them. These could come for example in the form of a subsidy for P-Card application, zero fare concession for a period, or a suitably designed souvenir/ lottery programme.
178. In considering a changeover to the photo P-Card, the Government may also wish to monitor more closely the development of alternative electronic payment platforms, which enable users to make payment transactions with a mobile device.
179. We believe the development of these new platforms if allowed to be used for the \$2 Scheme will make the authentication of beneficiaries more difficult as the users do not even show a physical card which can be more readily monitored by frontline staff. Control for use on the \$2

Scheme in this case will have to rely on the passwords for activating the mobile device and the payment platform. There is however no question of the P-Card becoming obsolete in the foreseeable future, as long as it continues to be accepted for fare payment and designated for use on the \$2 Scheme. At least it will have a photo of the user to show.

180. Nevertheless, the fast development of alternative payment systems probably makes it more important for the early transition of the \$2 Scheme to a mandatory P-Card arrangement. We suggest there is no real need to accommodate the market so closely as the users will anyway have to show some credential to demonstrate their entitlement under the \$2 Scheme, and a photo P-Card alone rather than any smart device could be designated to serve that purpose. It will in any case not be consistent to allow users to continue benefiting from the \$2 Scheme, while still given a flexibility to hide their identity which is needed to justify their entitlement in the first place.
181. The changeover to the P-Card is perhaps not an innovation. Most other jurisdictions have adopted a similar card with some identity proof for their transport concession schemes. We understand the mandatory use of the P-Card was also considered when the \$2 Scheme was first conceived, but the idea was dropped so the \$2 Scheme could be implemented more expediently with a shorter lead time.
182. Regardless of the Octopus or Quick Response (QR) Code based payment systems, the fare transactions can only be traced to the card or electronic device, or in the case of the P-Card to individual cardholders. In comparison, the photo P-Card would have a higher deterrent effect on potential abuses by non-beneficiaries than an A-card, since the identity of the P-Card holder could be established.
183. To actually confirm the identity of the beneficiary, and therefore his eligibility under the \$2 Scheme, manual checking or some sort of authentication system based on biometrics may be needed. It is however unlikely the latter will be practicable at least for the foreseeable future locally given the considerable emphasis being placed on personal privacy. The technology itself, e.g. facial, fingerprint or iris recognition, is however readily available and as far as we understand, has been used locally and elsewhere for various applications. We believe there is no real need to consider such technology solutions at least for the time being as a changeover to mandatory P-Cards itself should be able to contain much of the fare evasion on the \$2 Scheme.

Heavier penalty

184. The likelihood of fare evasion is largely a function of the magnitude or seriousness of the penalty and the perceived probability of the evader being identified and subject to that penalty. But the effectiveness of any penalty will depend on the efforts put into enforcement. More inspection will raise the risk of being caught and the potential fare evaders might have second thoughts about whether or not to commit the offense.
185. Currently only MTRC has a by-law for enforcing inspection and penalty. For the other PTOs, the inspection effort is probably on the weak side given their drivers/ frontline staff are often discouraged to follow up on potential evasion cases for fear of antagonising possibly hostile passengers and the possible disruptions on daily operations. We suggest they should be empowered and encouraged more in some way, including incentives and appreciation. More cases of prosecution and guilty verdict will also send a signal to potential offenders that fare evasion would not be tolerated, especially for cases involving public money.

186. But the impact of the penalty will also have importance. As such, we suggest consideration could be given to reviewing the current penalty fares in future and to adjust them upwards to the extent necessary to maintain a deterrent effect, e.g. in line with inflation or per capita income, or to raise penalty multiples based on regular fare levels. It may also be useful to standardise the penalty for fare evasion across different modes and operators.
187. In the meantime, we suggest the fare evasion situation should continue to be monitored closely in future, in case a more proactive approach is required even after the implementation of mandatory P-Cards. In this respect, we note Singapore has achieved a very significant improvement in fare evasion through raising penalty levels, as well as inspection efforts.

Public education

188. Fare evasion is a global phenomenon which affects all public transport operations. Such petty abuses are often not taken seriously by individuals, given the small amounts of money usually involved, and that some abuses are even not committed intentionally. But collectively they have an impact on the finances of the transport operation, and of the governments if some sort of public subsidy is involved.
189. Apart from formal anti-abuse measures, we suggest a well devised public education programme in collaboration with the PTOs may also help to raise awareness of the public as to the objective and achievements of the \$2 Scheme, the abuses and misuses being committed, their potential impacts and how the public could help to reduce such behaviours.
190. There should also be publicity to help the elderly and Persons with Disabilities understand the proper way to use the \$2 Scheme, including the need to show their identity proof to frontline staff, and the need to request a section fare and avoid short rides on long routes.
191. The public should be reminded that the elderly A-Card is for the use of the elderly only, and use of the card by any others on public transport will be unlawful and liable to prosecution. To add to the deterrent effect, any punitive consequences of fare evasion can be highlighted, as well as the embarrassment that comes with being identified as an evader in public.

Benefits enhancement

192. The feedback from the community suggests that the \$2 Scheme is generally very successful and is welcome by beneficiaries. Our analysis has also found the \$2 Scheme has been effective in encouraging the elderly and Persons with Disabilities to travel more, thus meeting the objective originally set for the \$2 Scheme.
193. With the past success comes increasing demand from various quarters for the enhancement of the \$2 Scheme in the future in terms of expanding its scope and coverage so that more transport modes and services can be added and more beneficiaries can be admitted by relaxing current eligibility criteria. Some examples of the major suggestions put forward include:
- Expanding modal coverage to Trams, RMBs, RS and Kaitos;
 - Extending service coverage to cross border and other services;
 - Lowering elderly eligibility threshold to age 60;
 - Admitting Persons with Disabilities assessed with a lower degree of disability; and
 - Including caregivers travelling with the elderly or Persons with Disabilities, etc.

194. We have looked at these more closely as part of our assignment, but always concerned ourselves with the potential operational, financial and policy implications. We also note the likely higher risk of abuse posed by the unique mode of operation of RMB, RS and Kaitos and the difficulty of ensuring a high level of regulatory compliance in their operations.
195. We understand there are suggestions from the community that the \$2 Scheme should be extended to cover RMBs, Kaitos, RSs and the Tramways, which are frequently used by the elderly and Persons with Disabilities. These operators are currently not covered under the \$2 Scheme, although some have already joined the PTFSS. Possibly motivated by market considerations, the major PTOs in these modes apparently all aspire to join the \$2 Scheme, suggesting their services would offer more choices to the beneficiaries.
196. These modes have so far been left out of the \$2 Scheme primarily because their fares are not regulated by the Government and their inclusion may bring about more abuses to the detriment of the \$2 Scheme. Their fragmented structure with a large number of operators would also make monitoring and reporting more difficult.
197. In the current review, we have taken a fresh look at these modes and other existing services, having regard to TD's experience operating the \$2 Scheme in the past years, especially as regard the GMBs.

Expansion of modal coverage

RMBs

198. We understand the Government had considered to include the RMBs under the \$2 Scheme before, but this was not eventually implemented primarily due to the lack of fare regulation in the RMB operations which posed difficulty to the assessment of a reasonable DF in the same way as the GMBs. We continue to be concerned about this difficulty and the inherent higher risk of abuse due to the fragmented structure of the sector, with 1,044 vehicles operated on 117 routes by 596 owners as at end 2019. However, since the inclusion of these operators would provide a more convenient service for some elderly and Persons with Disabilities, we suggest they should be considered for the \$2 Scheme if the current hurdles can be resolved.
199. A provisional framework of the requirements for the RMBs to undertake if they are to be considered for inclusion is provided below:
 - installation of Octopus payment system on RMB vehicles running on registered routes/services;
 - registration with TD of fare levels applicable to the registered routes/services, which is essential for DF calculations; and
 - full compliance with the monitoring/ audit arrangements for the \$2 Scheme.
200. It is conceivable that not all of the operators would want to incur the cost of the Octopus system and subject themselves to operational and other stringent requirements for joining the \$2 Scheme, this especially for the smaller operators.
201. In respect of fare levels, it should be possible to assess the reasonableness of the registered fare levels by making reference to such factors as historical trends, inflation rates, fares of comparable alternatives, fare increases of other public transport modes, and prevailing operating costs in the market, etc.

202. In respect of monitoring requirements, a more stringent arrangement for the RMBs should be considered to ensure the operational problems originally envisaged for their inclusion can be overcome, i.e. the integrity of the reimbursement arrangements against the backdrop of the flexibility in operation, e.g. fare setting.
203. As to the appointment of auditors, we suggest consideration should be given to allowing only government appointed auditors to perform the audits required under the \$2 Scheme in case the performance of the auditors appointed by the operators is found to be substandard. A similar arrangement can also be considered for the GMBs as well.
204. It is estimated that the financial implications could be as high as \$192.9 million in 2021 if all RMB routes/ operators are to be included under the \$2 Scheme. However, based on the experience of the PTFSS on which only 17 routes have joined so far up to early 2020, it is estimated that the financial implication would be around \$27.3 million for the year, plus one-off cost for system upgrade of the CSP and some additional recurrent cost for monitoring, etc.
205. While we understand there is currently only limited data available on the financials of the RMBs, we consider the rough estimates above are probably not far off. We envisage some smaller operators would prefer to adopt a wait and see approach initially as they may be discouraged by the cost of the Octopus system and the burden of the more stringent operational requirements.

Kaitos

206. The Kaitos, which carry 3.1 million passengers a year including elderly and Persons with Disabilities, have not been included under the \$2 Scheme before as their fares are not regulated by TD. But the inclusion of Kaitos would extend the benefit of the \$2 Scheme to the elderly and Persons with Disabilities, especially those living in remote islands for whom Kaitos could be their only means of daily transport. Given the policy objective of the \$2 Scheme, we suggest therefore that the \$2 Scheme should be expanded to include scheduled Kaito routes in future if the regulatory issues can be resolved.
207. Similar to the RMBs, the fares proposed by the Kaito operators should be registered with TD, and a control mechanism similar to that for the RMBs should be applied on Kaitos.
208. The financial implications of including Kaitos is expected to be quite small given the small patronage numbers involved. The total outlay is estimated at \$2.2 million for 2021 if all of the 16 scheduled Kaito routes should join the \$2 Scheme. It is however more probable that only 10 routes will join initially based on the experience with the PTFSS. In this case, the financial implications will be reduced to \$1.6 million for 2021, plus additional costs of system upgrade and manpower for monitoring. We suggest the 10 routes identified can be invited to join the \$2 Scheme initially, and subject to satisfactory outcome especially in regard to regulatory compliance, the invitation be extended to cover other routes in phases.

Trams

209. Hong Kong Tramways currently carries 60 million passengers a year, of which about 16.6% are elderly passengers, a proportion which is slightly higher than other PTOs. They have not joined the \$2 Scheme so far primarily because their elderly fares are too low, i.e. lower than the flat \$2 fare under the \$2 Scheme. They have nevertheless expressed an interest to join the \$2 Scheme in the future as they are improving their equipment and services under their capital renewal project and expect their fare levels would rise accordingly.

210. We understand HKT has been operating under a difficult environment since the introduction of the \$2 Scheme as elderly passengers are lost to other transport modes since the cost of travelling on their competitors has come down considerably due to the subsidy. As HKT is a major PTO in Hong Kong carrying a substantial volume of passenger traffic, with a high percentage of elderly, we suggest they should be considered for admission in the future, subject to their meeting all the requirements set for the \$2 Scheme.
211. We note in this respect that since HKT has already been offering a concessionary fare of \$1.2 for the elderly, these passengers will not be able to immediately benefit from the \$2 Scheme. However for Persons with Disabilities who are currently charged a full fare of \$2.6, there will be some marginal benefit.

Status quo

212. There have been suggestions that the \$2 Scheme should be extended to cover the RSs, the AEL, and rail services to and from Lo Wu and Lok Ma Chau which the elderly regularly take while travelling to or from overseas or Mainland destinations. There are also other suggestions to cover racecourse services, ferry services on special occasions, deluxe class on regular ferries, and first class service on East Rail Line.

RSs

213. The RSs provide transport services primarily for the residents of specific private developments. Due to this private element, which is not consistent with the policy objective of the \$2 Scheme which seeks to provide fare concession on public transport, we suggest the RSs continue to remain outside the \$2 Scheme unless their services are also open and accessible to the public and their fares are set similar to other public transport. We understand TD currently exercises some licensing controls over the RSs but these are not as strict as for other public transport, especially in relation to fare levels.
214. Notwithstanding the above, we suggest the Government adopt a more flexible position in future, and consider individual applications for inclusion on a case by case basis from bona fide public services which are open to all passengers and which are able to meet the requirements of the \$2 Scheme, especially if there is no viable public transport alternatives.

“A” and “NA” bus routes to/from the airport, AEL and East Rail Line services to and from Lo Wu / Lok Ma Chau

215. In respect of airport bus routes, the AEL and rail services to and from Lo Wu and Lok Ma Chau, we consider they should still remain outside the \$2 Scheme since the current objective for the \$2 Scheme is to encourage participation in local activities and the \$2 Scheme should cover domestic journeys only. We note there are views expressed at the engagement sessions that people with the means to travel abroad or outside of Hong Kong must already have enough resources themselves to cover their journeys.

Racecourse bus routes and licensed ferry “North Point – Joss House Bay” route

216. For the racecourse bus routes and the North Point - Joss House Bay ferry route which operates during the annual Tin Hau Festival, we suggest they should continue to be excluded from the \$2 Scheme. This is because these routes are not regular daily services, and their inclusion is not fully aligned with the policy objective of the \$2 Scheme.

Others

217. The deluxe class service on ferries and the first class service on East Rail Line are currently excluded from the \$2 Scheme. We suggest they should continue to be excluded because the current policy is to subsidize journeys made on standard services only.

Eligibility requirements

The elderly

218. Currently the age limit for the \$2 Scheme is set at 65 or over for the elderly, while no age limit applies for the Persons with Disabilities. From our overseas study, we note that most of the cities studied offer concessionary fares at 65 or above in line with the definition set by OECD and other developed countries for elderly people. In Tokyo, eligibility for fare concession is even set at 70 or over. Given Hong Kong's advanced level of economic development, and with one of the world's longest life expectancy, there seems no particular reason for Hong Kong to lower the eligible age limit for the \$2 Scheme. Nevertheless, there have been suggestions from the public engagement sessions that consideration should be given to lowering the age threshold to 60. It is suggested that this would help to keep people at this age group healthier, with less demand for medical and care services eventually.
219. As many in the age group 60-64 are still economically active and travel more than existing beneficiaries, extending the \$2 Scheme to this age group could be costly. The DF could also be higher for these journeys. We have roughly estimated the financial implications of extending the \$2 Scheme to cover those aged 60-64 at about \$3,000 million⁵ a year for the initial years. The amount can nevertheless be lower if a higher flat fare is set for this younger elderly group, for example at \$5 per journey or at half the regular adult fare level as suggested by some at the public engagement sessions.
220. Given the considerable financial implication for the \$2 Scheme, the matter must be considered holistically from a policy perspective. We note in this respect that the policy objective of the \$2 Scheme is to help build a caring and inclusive society by encouraging elderly people (and eligible Persons with Disabilities) to participate more in community activities. Lowering the threshold to cover people aged 60-64, many of whom would still be working and may not need financial incentives to become more active in the community, might give rise to possible inconsistency with this established policy objective.
221. In light of the considerations in paragraphs 218 – 220, we are not in an appropriate position to recommend if the lower age threshold should be adopted by the \$2 Scheme, although a decision to go forward with it would be welcome by potential beneficiaries and those who aspire to be over time. But if the extra recurrent financial commitment is not an issue, then perhaps the age threshold for the \$2 Scheme could be lowered, as suggested by some in the public engagement sessions.

Persons with Disabilities

222. There are suggestions from some to widen the eligibility of Persons with Disabilities for the \$2 Scheme. Currently eligibility is restricted to those Persons with Disabilities who are recipients under the CSSA with 100% disabilities or recipients of Disability Allowance. We have examined

⁵ Assuming higher DF based on full adult fares at various PTOs, and non-availability of elderly concessions on Wednesdays, Saturdays and non-Sunday public holidays at MTRC for this age group.

two possibilities, i.e. to define eligibility based on the disabilities under the Disability Discrimination Ordinance or those with a Registration Card for People with Disabilities issued by the LWB.

223. We consider both options difficult to implement. The definition of disability under the Disability Discrimination Ordinance is very broad given its objective and it would be unrealistic to provide a general concession to all Persons with Disabilities protected by the Ordinance. For the other option, the criteria for the issuance of a Registration Card for People with Disabilities are much more relaxed than those for the Disability Allowance and the number eligible for the Registration Card will potentially be very large, covering many with not much need for assistance.
224. In view of the above considerations, we suggest the current eligibility requirement for Persons with Disabilities for the \$2 Scheme should remain the same in future.

Accompanying persons

225. It has been suggested by some that caregivers should be given some fare concession when they travel with the elderly or Persons with Disabilities. From our overseas studies, we have found some cities with fare concessions for accompanying persons, including for example Sydney, Taipei, Toronto etc. but they tend to be in the minority as most others do not have such concessions.
226. We understand there are also complications operating with such a concession as there is a need to identify the accompanying person who may or may not be the same person each time the elderly or Person with Disabilities travels.
227. Most of the elderly or Persons with Disabilities especially the younger elderly are able-bodied and can travel on their own, and abuses could occur if they too are entitled to register somebody as accompanying persons. The addition of these younger people also complicates the monitoring of abuse by frontline staff of the PTOs as it would be even more difficult to distinguish bona fide beneficiaries.
228. As these operational complications are unlikely to be resolved easily, we suggest fare concession for accompanying persons should not be considered for the time being.

Possible rationalisation

229. The introduction of the \$2 Scheme was essentially based on welfare considerations, which may or may not align with the wider considerations from a public transport perspective. Operational issues of PTOs or challenges from the transport policy angle are however outside the ambit of the \$2 Scheme.
230. We have observed that the subsidy under the \$2 Scheme has in some case largely removed the economic consideration that a passenger would normally apply in his/her travel decisions, i.e. when to travel and by what route or mode. While the objective of the \$2 Scheme is to encourage the beneficiaries to travel more, there are also unintended impacts, e.g. encouraging short rides on long routes, and not paying attention to section fares. Putting some economic incentives back into travelling decisions could be an option for consideration. But this will not be possible under the current policy of a \$2 flat rate for any journey under the \$2 Scheme, regardless of transport mode or distance travelled.

231. We also note the disparity of average subsidies across transport modes, with high subsidies on certain modes/routes and much lower on others, as DF for some modes are based on elderly fares while others are on full adult fares. We understand some of the PTOs are claiming they are losing out carrying more elderly passengers at the elderly fare as they have originally agreed to charge an elderly fare based on certain concessions from the Government, and that they would not be able to accommodate more of these passengers at the elderly fare. In view of this, a possible way out would be to base the DF reimbursement on regular adult fares, but this would increase the DF payment considerably and at some point there may be need for some rationalisation if the \$2 Scheme is to be sustained for the longer term. We have explored a few possibilities below.

Visitors

232. On the continued eligibility of elderly visitors under the \$2 Scheme, the general view from the community appears to be that the \$2 Scheme should be for local residents only, they having made past contributions to the community. Our overseas study has also revealed that in many overseas cities visitors are similarly excluded from their elderly concession schemes for public transport. Nevertheless there are others who suggest that elderly visitors should continue to be eligible for the \$2 Scheme given our local policy to promote tourism and that Hong Kong residents also enjoy similar concessions in some jurisdictions e.g. on the Mainland.

233. On balance, we consider there is no real need to cover visitors under the \$2 Scheme, which we understand is meant for elderly residents in the first place. The \$2 Scheme is also clearly not designed for promotion of tourism, otherwise airport and cross boundary journeys would have already been covered. As to the issue of reciprocity, we consider this should be quite irrelevant given there has never been any understanding on transport concessions with other cities. In any case, there is a relativity issue to consider given the relative small size of the local elderly population vis-a-vis the others'.

234. In view of the above considerations, we suggest it would be better for the \$2 Scheme to stay focused on elderly residents, the intended beneficiaries, and to exclude visitors as and when this becomes practical. We note in this respect that there is no means to implement this at present until the mandatory use of P-Cards can be implemented for elderly residents in future. Nor is there an immediate need to exclude the elderly visitors either, since the cost of continuing to cover elderly visitors is relatively small at present despite their numbers, at an estimated \$25 million for 2021, although the amount will increase as the visitor traffic grows in future.

Fare structure

235. We have not been tasked to revamp the fare structure under the \$2 Scheme as part of the assignment, which is a flat fare of \$2 per journey across all modes, with any DF absorbed by the \$2 Scheme. The \$2 fare has never been adjusted since its inception while actual fare levels charged by PTOs continue to rise over time. This is a major reason underlying the rapid increase of DF payments in recent years.

236. If the \$2 Scheme continues to be on a journey basis, then may be the fare level could be adjusted by inflation, or allowed to vary with the applicable adult or elderly fare level. Such adjustments could be lumpy and unwelcomed by the beneficiaries, but not making any adjustment at all will mean the \$2 Scheme will pay for a larger proportion of the increasing fares over time, with a larger impact on the available budget.

237. If a fundamental change is possible, then perhaps a scheme based on a maximum allowance could be considered, in terms of dollars, journeys or in combination, for which there are some overseas examples. The arrangement could help to reduce the excessive usage by a small number of beneficiaries. It would also bring back an element of economic consideration into the journey decisions and reduce some of the misuses under the current Scheme, e.g. short rides on long routes. In terms of operations and support services, this model may well be less complicated for the Government and for the PTOs.
238. We have tested some of these possibilities as part of the review and the findings are summarised below to provide a rough indication of the potential financial savings. Details are shown in **Appendix M**.

(\$ M)	DF (2021-31)	Financial impact as % of Status Quo
Status Quo at \$2 fare	35,790	-
\$2.5 fare in 2020 and inflation adjusted thereafter	-9,281	-26.0%
Concession capped at \$400 a month and inflation adjusted	-1,269	-3.6%
Concession capped at 100 Journeys a month	-849	-2.4%
Exclude Visitors	-474	-1.3%

239. If the flat fare is adjusted to \$2.5 in 2020 and inflation adjusted thereafter, the projected DF for 2021-2031 will reduce 26% from that under the status quo. Due to the initial low base, the adjustment will not be able to achieve significant savings in the early years but could help in some way if budgetary constraint should dictate a move in that direction. The interest of the beneficiaries will be affected, but we believe the community may well have sympathy for some inflation adjustment for an already heavily subsidised Scheme if circumstances require such an adjustment.
240. Capping the concession by journey numbers or by monthly subsidy amount could also reduce the outlay from the \$2 Scheme, depending on the cut-off points adopted. If the journey cap is set at 100 journeys a month, thus still fully covering 97% of the beneficiaries, the DF for the period will be 2.4% lower than the status quo. And if the DF concession is to be set at \$400 a month, which covers 98% of the beneficiaries, the DF will be lower by 3.6% as some beneficiaries are benefiting from the \$2 Scheme disproportionately. These two options if implemented are unlikely to be welcome by some beneficiaries since they will not be able to enjoy the \$2 Scheme to the full.

Financial Implications and Sustainability

241. Whether or not the \$2 Scheme will be sustainable into the future depends primarily on the resources likely to be available. One of the available references is to measure how total outlay from the \$2 Scheme is to impact on the recurrent social welfare budget and indirectly on the recurrent government expenditure. We have assessed above that if the \$2 Scheme is to continue with its current scope and coverage, total DF expenditure of the \$2 Scheme is likely to rise from the \$1,187 million in 2018 to \$4,710 million in 2031. As a percentage of the overall recurrent expenditure on social welfare, this will increase from 1.6% in 2018 to 2.9% in 2031.
242. Expanding the scope and coverage of the \$2 Scheme will add to the financial impact, some larger than the others. We have summarised the potential implication below assuming the PTOs

do not lower the threshold for their current elderly concessions to age 60 and the DFs for the younger elderly group have to be based on the full adult fares.

(\$M)	Projected DF (2021-31)			
	Status Quo	Addition due to lower age threshold	Saving due to exclusion of visitors	Overall
Baseline	35,790	40,346	(2,097)	74,039
Extend coverage to RMBs*	414	188	(13)	589
Extend coverage to Kaitos*	25	11	(1)	35
All of the above	36,228	40,545	(2,111)	74,662

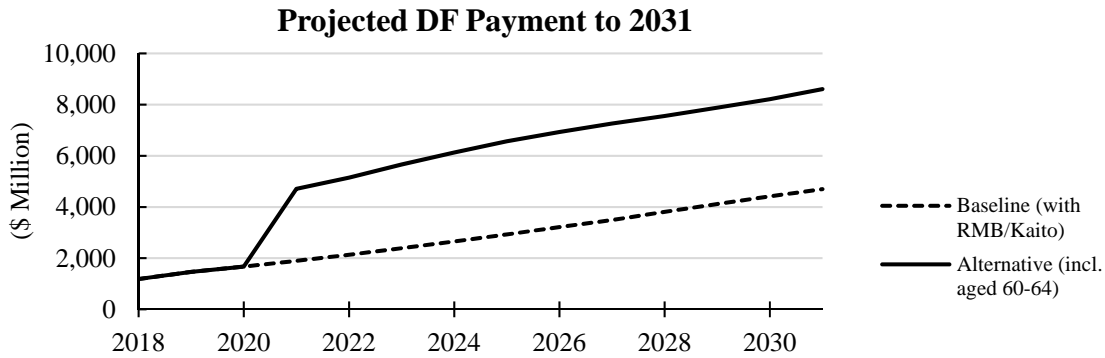
* Based on initial inclusion of 17 RMB and 10 Kaito routes

243. The annual projections under the two scenarios with the extension of scope to RMBs and Kaitos, but with or without lowering the age limit to 60, are summarised below for the period 2021-31.

DF projections with or without lowering age threshold

(\$ million)	2018	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Base Projection (Aged 65 or over)												
Baseline	1,187	1,894	2,133	2,388	2,655	2,933	3,217	3,496	3,816	4,122	4,425	4,710
Extend to RMBs (17 routes)	22	27	29	31	33	35	38	40	42	44	46	48
Extend to Kaitos (10 routes)	1	2	2	2	2	2	2	2	2	3	3	3
Total	1,210	1,923	2,164	2,421	2,690	2,970	3,257	3,538	3,860	4,169	4,474	4,761
Less Visitors	17	25	29	32	36	39	43	47	51	55	59	64
Total (without visitors)	1,194	1,898	2,136	2,389	2,655	2,931	3,214	3,491	3,809	4,114	4,415	4,697
Alternative Projection (Aged 60 or over)												
Baseline	3,118	4,781	5,231	5,752	6,236	6,682	7,063	7,407	7,715	8,053	8,402	8,812
Extend to RMBs (17 routes)	14	43	46	48	51	53	55	57	59	61	63	65
Extend to Kaitos (10 routes)	1	3	3	3	3	3	3	3	4	4	4	4
Total	3,133	4,827	5,279	5,803	6,289	6,739	7,122	7,468	7,778	8,118	8,469	8,881
Less Visitors	72	115	129	143	158	174	190	206	223	240	257	275
Total (without visitors)	3,061	4,712	5,150	5,659	6,131	6,565	6,932	7,262	7,555	7,878	8,212	8,606

244. The figures above indicate that total DF payment will steadily rise as eligible beneficiaries increase over the period, with 2031 outlay under the baseline (\$4,710M) being 4 times the 2018 figure (\$1,187M). Under the alternative scenario which covers also the 60-64 age group, total payment will be considerably larger, with the 2021 figure (\$4,781) already 4 times the 2018 outlay, and the 2031 figure (\$8,812M), over 7 times. The projected increase under the latter scenario is moderated by the progressive decline of the 60-64 age group after reaching a peak in 2024.



245. Based on the above, if all the major changes are to be implemented, the total DF under the \$2 Scheme will rise rapidly over the period to some \$8,606 million in 2031. Following the assumption of a nominal GDP annual growth of 5% from 2021 onwards and as a share of the Government’s recurrent expenditure on social welfare, the DF is expected to increase from the 1.6% in 2018 to a peak of 5.5% in 2026, before declining to the 5.3% level by 2031, broadly representing 1.0% of the total recurrent government expenditure for the year. We believe these percentages are still modest in overall terms and the \$2 Scheme should be sustainable as the economy continues to grow over time.

(\$ million)	2018	2021	2026	2031
Nominal GDP*	2,842,900	3,066,200	3,913,400	4,994,600
Recurrent government expenditure of which social welfare	392,696 75,952	517,980 99,143	661,969 126,703	844,859 161,709
DF (as % of social welfare expenditure)	1.6% 1.6%	4.712 4.8%	6,932 5.5%	8,606 5.3%

* Nominal GDP growth assumed at 1.5% for 2020, and 5% a year thereafter

246. Where needed, some relief on potential expenditure of the \$2 Scheme is possible through implementing minor adjustments. These include for example some adjustments to the flat fare, and capping monthly journey numbers or subsidies as discussed earlier. These rationalisation measures are not options that would normally be welcome, but can be considered if circumstances should require some fine-tuning to enhance the longer term sustainability of the \$2 Scheme amid competing demands for public funding.

Support Systems and Resources

247. As part of the assignment, we have broadly reviewed a number of systems and processes supporting the operation of the \$2 Scheme, focusing on the current constraints in the monitoring, assurance and reimbursement processes at TD, and the possible roll-out of the CSP to include all PTOs on the \$2 Scheme. We have also examined the renewal procedures for the Persons with Disabilities P-Cards, and see if there is possibility to shorten the issue timeline.

248. Support services for the ongoing operation of the \$2 Scheme are provided by TD and OCL, with the latter operating the CSP for the reimbursement of DF payments to NLB, the Ferries and the GMBs on the \$2 Scheme.

249. The reimbursement for the other PTOs which are not yet on the CSP is handled by the Public Transport Fare Concession Scheme Section (PTFCSS) of the TD. It is also responsible for the monitoring and compliance function through undertaking regular exceptions investigation, field

surveys and audit/assurance exercises. In the course of our work, we have discussed with the PTFCSS to understand its current operations and major processes, as well as the future migration of the remaining PTOs to the CSP. Some operational issues have been identified during the discussion, with suggestions for possible improvement in the future.

Exception Reports

250. The exception reports for ferries, GMB and NLB are prepared for TD by OCL monthly listing out transactions which exceed various predetermined limits set by TD. Given the large number of GMB operators and that the company management of GMB operators varies, more stringent monitoring was imposed on GMB. The exception reports were first introduced on GMB, and later extended to ferries and NLB whenever applicable to their operation. For franchised bus operators not on the CSP, they would submit TD with exception reports on their own. TD will then follow-up with PTOs and /or conduct follow-up surveys on the routes with abnormal transactions. Any cases suspected of involving crime elements will be referred to the Police for further investigation.
251. Under the existing practice, the above procedures are handled manually by the TD staff and the reports are all checked every month. An analysis of the follow-up actions of the exception reports in 2019 indicates that about 30% of the 806,000 exceptional transactions identified required further clarification and follow-up with the PTOs. After clarification, nearly all exception transactions are non-suspicious cases. For the sake of administrative efficiency, some follow up actions are now performed on a quarterly basis as some of the queries are repetitive and the risk levels comparatively low.

Differential Fares

252. The DF reports are submitted daily by OCL to TD for the PTOs on the CSP, and by the PTOs themselves monthly for those not yet on the CSP. For each route operated by the PTO, the reports list out the applicable fares and concessions, the DF categories by value and the number of eligible trips under each category. The report for the MTR is similar but the data is not desegregated by route.
253. The DF reports from OCL are checked on a daily basis while the DF reports from PTOs not on the CSP are checked on a monthly basis by the TD staff. Due to the vast data volume and resources constraint, the route details in the DF reports are checked on a sample basis. A mechanism has been established to ensure that all routes covered in the DF reports are fully checked within a specified period of time.
254. The fare and trip data in the DF reports will have to be checked against TD's internal database. And since the two are not linked up at present, the checking has to be done manually and the process is time consuming. To alleviate the current burden, we suggest automating the checking process itself. This might involve the use of a business intelligence software to handle the repetitive and mechanical parts of the verification process, and to highlight the problem transaction data for further action. This is especially relevant if the \$2 Scheme is to enlarge its coverage in the future with the data volume and monitoring and verification role expanding in tandem. A business intelligence software is designed to retrieve, analyse, transform and report data to facilitate follow up actions. There are many vendors on the market that could provide a suitable software for this application, perhaps with some customisation.

Audit / Assurance

255. The \$2 Scheme requires each PTO to engage an external auditor to provide 3 audit assurance reports, for internal control system, DF and eligible trips respectively. There are around 540 reports to be reviewed and followed up annually. The PTFCSS team also conducts audit/assurance exercises on 2-3 ferries annually, which have minimal DF claims.
256. There is also a 10-year plan from 2017/18 for conducting field inspections and walkthrough tests on internal controls in particular for high-risk areas such as fare tables, anti-abuse measures and Octopus reader security. Each year, around 20 PTOs are checked by 2 full time TD treasury grade officers. As internal control weaknesses should be identified and rectified as soon as practicable, the 10-year period to complete full inspection and testing for all PTOs may be too long for effectiveness reasons and a 5-year cycle seems highly desirable. This will require an increase in headcount as the existing staff is unable to accommodate the increased workload that comes with the change.
257. With increase in headcount, we suggest TD adopt a risk based approach such that the more risky PTOs with potential significant financial impacts can be scrutinised more frequently, and the others less so. As to the appointment of auditors under the \$2 Scheme, TD may consider restricting appointment to government appointed auditors should the need arises.

Centralised Settlement Platform

258. The CSP was set up for the Government by OCL in 2013 to record daily transactions under the \$2 Scheme and for the calculation of DF reimbursements to the PTOs. Currently, only NLB, the Ferries and the GMBs have joined the CSP. The early participants of the \$2 Scheme, namely MTR, KMB/LW and CTB/NWFB, have remained outside the CSP and continued to submit their transaction data to TD for direct settlement on a monthly basis.
259. The problem encountered in migrating the remaining PTOs to the CSP is mainly due to technical issues such as the incompatibility of fare structures and collection systems, and these obstacles need to be resolved before they can join the CSP. A feasibility study conducted in 2014 on the migration found no easy solution, and it was estimated at the time that the migration could cost up to HK\$65 million for the Government.
260. In the current review, the PTOs which are not yet on the CSP have been invited to reassess their costs of joining the CSP. The latest estimate, based on their cost of system enhancement together with OCL's cost of system development and deployment, is considerably less than the 2014 figure, amounting only to around HK\$14 million. In terms of implementation, it is expected the migration process could take up to 20 months to complete, possibly shorter if some tasks at OCL and the PTOs can be performed concurrently.
261. The significant reduction is due to the partial migration dictated by these PTOs' inability to provide front-end transaction data to OCL. Instead, they will retain the main task of DF calculation at the back-end as it is now, with the calculated DF reports submitted to OCL for processing settlement on a monthly basis. The arrangement substantially reduces the cost of migration, but since the individual transactions cannot be recorded, it does not enable the CSP to provide analysis for the \$2 Scheme down to transaction level. As such much of the benefits of their inclusion on the CSP originally envisaged will be lost.
262. Based on the feedback from the PTOs concerned, apart from technical issues, there are also financial complications which discourage them from migrating to the CSP. They have reiterated that they will not bear any extra cost resulting from joining the CSP, including their own internal

system enhancement cost, OCL's implementation cost, and any service fee for using the CSP for settlement. The latter could cost some \$9 million a year, and more if NLB and the GMBs which are already on the CSP should also ask the Government to pay for their service fees. In terms of timing, one or two of the PTOs concerned are in the process of implementing new electronic payment systems, and have suggested to consider migration to the CSP only after implementation of their new systems.

263. Given the migration of the remaining PTOs to the CSP is unlikely to make a significant contribution to the efficiency and effectiveness of the \$2 Scheme's operation, it may not be worthwhile for the Government to pursue the migration effort until such a time when the technical complications at the PTOs can be resolved.

Resources supporting the \$2 Scheme

264. The \$2 Scheme is managed and operated by the PTFCSS of the Ferry and Paratransit Division in TD. There are currently 16 staff in the unit, consisted of 8 transport, 7 accounting and 1 clerical personnel.
265. The transport officers are responsible for monitoring the operation of the \$2 Scheme. Their tasks include examining exception reports and following up as necessary with the PTOs; arranging surveys, examining and following-up survey reports and conducting field inspections; compiling statistics and reports; and handling complaints/ enquiries from the public.
266. The accounting staff on the other hand focus more on payment of DF and controls. Their responsibilities include examining exception reports; assessing the DF calculations and processing DF payments to PTOs not on the CSP; coordinating with OCL to make DF payments to PTOs on the CSP; reviewing the audit reports of the PTOs; and conducting field inspections and walkthrough tests to PTOs.
267. In view of the number of PTOs, transaction numbers and monthly reports received, a lot of strenuous work is required in vetting documents and data and liaison with PTOs, OCL and relevant parties. If the scope and coverage of the \$2 Scheme are to be significantly expanded in the future, it is expected the current staff will not be able to cope with the additional workload that will come with such an expansion given the additional operators and transactions to cover. There is therefore a need to review the detailed staffing arrangement as the \$2 Scheme is expanded, e.g. whether additional staff would be necessary.

Cost of support services

268. In addition to DF payments, the \$2 Scheme also incurs cost for its supporting services. The total expenditure on these services amounts to \$134.2 million from inception of the \$2 Scheme to March 2019. The amount covers system related costs, CSP processing fees, and TD's internal costs for monitoring, compliance, validation and follow up. The total represents about 2.5% of the DF payment during the period, declining from 5.4% in 2012/13 to the 2.0% level in more recent years as the \$2 Scheme develops. The higher percentage in the early years is understandable given the system costs upfront. The current percentage appears not excessive although it may still require watching in future.

(\$M)	System development/ upgrade/ onsite testing & CSP Processing Fee	Monitoring/ Compliance/Validation/ Follow-up etc.	Total support service cost	As % of DF Payment
2012-13	4.2	8.1	12.3	5.4%
2013-14	2.8	13.0	15.8	3.1%
2014-15	4.2	16.1	20.3	3.5%
2015-16	2.9	18.9	21.9	2.5%
2016-17	1.4	19.2	20.6	2.1%
2017-18	0.2	18.9	19.1	1.7%
2018-19	1.9	22.4	24.3	2.0%
Total	17.6	116.6	134.2	2.5%

New Payment Systems

269. Mobile payment systems are contactless systems involving transactions made through smart cards, credit cards, smartphones or other mobile devices. As there is no sophisticated authentication, contactless payments are usually limited to small value transactions. Smart cards with a stored-value function, such as the Octopus Card, are widely used in the public transport sector worldwide.
270. In addition to contactless smartcards, there are also two other major electronic payment systems. The EMV system is based upon a common technical standard for smart payments, which has been developed by the major credit card and phone companies. The other major system is the QR Code system which is widely used on the Mainland, and increasingly overseas.
271. These new payment systems have expanded rapidly in the local retail market in recent years, although Octopus still holds on to a predominant market share in small value transactions. It is envisaged that the use of these new systems will become more prevalent in future as people become more familiar with their usage and gain confidence in their reliability and security. It is also thought that at some point, there will be pressure for some of these new systems to be accepted for fare payment under the \$2 Scheme. In light of this possibility in the longer term future, we have embarked on a side research to understand the current development of these payment systems and to assess the potential implications if they are to be adopted for fare payments under the \$2 Scheme. Our findings are summarised below.

Local developments in electronic payment

272. There is a wide range of players in the local electronic payment market, including major banks, payment card companies, telecommunications operators, internet companies and smart phone manufacturers. The Monetary Authority has so far issued 18 Stored Value Facility (SVF) licenses to operators providing electronic payment via physical card or mobile apps. They can be linked up with a payment card, bank account or contactless payment apps to effect payment or top-up value. Currently over 90% of the SVF payment transactions are point of sale payments with an average value of just below \$17. Other electronic payment providers operate without a SVF license. These applications do not have a stored value and need to link up with a payment card to effect payment.
273. With the increase of service providers, the use of mobile payment is becoming more prevalent in the local market. A recent survey undertaken by a major media group indicates that mobile payment penetration in Hong Kong increased to 3.2 million in 2018, a 30% increase from a year ago. And of all smartphone users aged 18-54, 89% are mobile wallet users. No specific

data is available for the elderly, but conceivably the penetration rate for this group would be significantly lower than that for the working population, as the Octopus Card remains a familiar, well used and safer payment media.

Adoption in the public transport sector

274. Internationally, the use of mobile payment in public transport is becoming more common and major cities like London, New York, Singapore, Sydney and others on the Mainland have started to accommodate new mobile platforms in addition to contactless cards.
275. In Hong Kong the payment of public transport fares has been dominated by the Octopus Card for a long time. With the rapid adoption of mobile payment in the local retail market, the dominant position of the Octopus Card in the transport sector is under pressure as the other platforms step up their investments and begin to make inroads into the sector.
276. Given the apparent high adoption of mobile payment in the community, we expect the penetration rate for the beneficiaries under the \$2 Scheme will also increase in future, especially among the younger beneficiaries. This may have an operational implication for the PTOs as well as for the \$2 Scheme as the beneficiaries may wish to have an alternative to the Octopus Card.
277. In response to the rising trend for mobile payment, the major PTOs are already working to accommodate the new platforms in their fare collection. Currently the MTR is at an advance stage of implementing an alternative payment system. It is expected that the Alipay system will commence operation in mid-2020, to be followed by others in the following year.
278. The other PTOs are progressively adjusting to this new environment, but they are generally more cautious in their approach, with initial plans mostly covering full fare passengers and for selected routes only. For the FBs, we understand current progress has mostly been limited to trial runs with one or two PTOs targeting implementation by late 2020. As for the GMBs, a QR Code based system has already been introduced on a number of routes and may be rolled out to others in the near future, although the fragmented ownership of the sector could pose difficulty. For the Ferries, we understand one or two PTOs are introducing QR Code based systems in the near future. There is little development for the RMB and Kaitos however.

Implications for the \$2 Scheme

279. While the adoption of new payment systems is increasing in the public transport sector, there are a few issues that need to be resolved before any of these systems can be accepted for use on the \$2 Scheme, the most important ones being operational compatibility and validation of eligible users. Cost may also be an issue.
280. As the current review does not include a technical assessment on the new payment systems, we are unable to comment on its compatibility with the current systems of the PTOs or at OCL. However this needs not be a concern for the \$2 Scheme as compatibility with the PTOs' systems can be assumed as otherwise the new system would not have been accepted by the PTOs for fare collection in the first place. Our discussion with the industry suggests that any adjustments that may be needed will most likely be confined to the front end interface, which they should have resolved with the PTOs early in implementation.
281. It is possible the PTOs and OCL might have to adjust their reporting arrangements if the new systems are accepted for the \$2 Scheme, but this is unlikely to present a major issue. Transaction

data aside, it has been suggested that the new systems, being mobile phone based, will be capable of providing more sophisticated data analysis for monitoring and planning purposes, as compared with a card based system.

282. An important criterion for other payment systems to be included under the \$2 Scheme will be their capability to verify the identity of the beneficiary. For the new payment systems, user validation will be based on the personal profile held on the smart device, which could include identity card numbers and photos.
283. The system can recognise the device, user details and any password, and can validate eligibility under the \$2 Scheme based on the information held, but it cannot confirm if the eligible person or somebody else is actually using the device. This limitation is however no different from the current system which recognises eligibility based on card type and card number. In either case, there is no guarantee that the user is the authentic beneficiary. A possible solution to this may be some sort of biometric validation procedures, but implementation of these for fare collection is unlikely to be practical under local circumstances for the foreseeable future.
284. In terms of cost implications, accommodating the new payment systems on the \$2 Scheme would likely require some adjustment to the fare collection and reporting systems at the PTOs, but this should be quite nominal. OCL may also incur some cost as there could be more reports to produce, although in overall terms the total transaction numbers should be the same. For the Government, the monitoring and validation process may be complicated by the additional payment systems given there are more parties to deal with and separate reports to handle. In addition, there may be need to take up some of the PTOs' systems modification costs as they are unwilling to bear these themselves.
285. Despite some early progress to date, this is still early day in the introduction of new payment systems into the local public transport sector. The current focus is on fare collection for full fare passengers and as far as we are aware, only one system has shown any keen interest to extend their platform to cover the \$2 Scheme.
286. Introduction of a new payment system may or may not require significant adjustment of the CSP as it may be possible to accommodate the new system at the PTO level. However such technical matters can only be ascertained through the collaboration of the PTOs, their new payment system operators and OCL. We understand the latter is keen to initiate such a dialogue but this can only proceed with an endorsement from the Government.
287. If there are concerns for data security among the payment platforms, there may be need for a common neutral platform to be operated by an independent party, to which the PTOs can separately feed in transaction data through an appropriate application protocol interface. It has been suggested that this may not be a major issue if data ownership should rest with the Government, with a monitoring role retained to ensure performance, security and compliance.
288. Conceivably, the independent operation could be outsourced to information technology services contractors. But in terms of cost, having OCL run a platform accommodating all payment systems may well be more cost effective given the investment already committed and experience gained in building and operating the existing platform. However, some competition or likelihood of competition would always help to drive down costs to more reasonable levels.
289. Given the early stage of the subject, it is inappropriate to suggest any system development requirements, implementation schedules or any indicative cost for upgrading the current platform to accommodate the new payment systems or to build a new common platform to

accommodate all payment systems. OCL considers it premature to examine such details without first entering into technical discussions with the PTOs and the operators of the new payment systems.

290. We believe one or two of the new platform operators may be willing to help in setting up an independent platform if this is needed in the future. It has been indicated to us that it would be possible to develop an independent platform within a time frame of about 12 months to a pilot launch, assuming 2 months to confirm system requirements, 8 months for system development, and 2 months for testing. There may also be need for some extra time if system modifications at the PTOs cannot be performed in parallel.
291. In respect of the implications for the Government, we envisage there will be need for more efforts and resources to support the addition of payment systems on the \$2 Scheme. Initially there will be need to coordinate the upgrading of the CSP, or to build an independent platform to accommodate all systems. And after these new systems commence operation on the \$2 Scheme, the efforts in monitoring/validating transactions and following up exceptions will be more than the present given there will be more operators and reports to handle, even though transaction numbers still remain the same.
292. It is however not reasonable to expect the \$2 Scheme to closely follow the development of new payment systems in the market and to accommodate each of them for the flexibility and convenience of the users. To qualify for the \$2 Scheme the users will also need to provide their proof of eligibility in an acceptable way, e.g. a photo P-Card, to confirm their legitimacy. If a new payment system cannot provide this user identity proof unambiguously, they should not be accepted under the \$2 Scheme even if it is accepted by the PTOs.

Conclusion

293. We have undertaken the current assignment through a combination of desk research and an analytical process that draw on the experiences of a range of overseas jurisdictions while taking in relevant inputs from the industry through in-depth interviews and from the wider community through a number of public engagement sessions.
294. Not all recommendations that emerge from the review are amenable to immediate implementation as there are technical, resource and other details that need to be sorted out before a decision could be made. We nevertheless envisage that these recommendations are generally in line with the long term direction towards developing a more inclusive community, with the elderly and the disabled encouraged to interact more with others by participating in their family, social and economic activities.
295. Provided that the Hong Kong economy continues to grow, we envisage the \$2 Scheme with the enhancements now recommended should still be sustainable for the long term. By 2031, total expenditure on the \$2 Scheme in its present form is likely to account for 2.9% of recurrent expenditure on social welfare according to the projection assumption. This could rise to 5.3% if modal coverage is extended to RMB and Kaitos and age threshold for the \$2 Scheme is to lower to 60. While these percentages appear small in overall terms, they may still be significant given potential demands from other welfare services competing for the available budget.
296. In respect of enhancements to the operation of the \$2 Scheme, we have recommended a range of measures to remedy the current fare abuses having regard to overseas experiences. These include the recommendation to use only photo P-Cards on the \$2 Scheme to reduce unintended

beneficiaries. We have suggested that this should be pursued with priority especially if the coverage of the \$2 Scheme is to be considerably enlarged.

297. The \$2 Scheme has been widely appreciated by the beneficiaries and the wider community since its inception in 2012. We envisage the enhancements as suggested in this review will be similarly welcomed. Against this backdrop, perhaps the minor complication of having to change over to the photo P-Card should be more acceptable, especially for those who have never benefit from the \$2 Scheme before.
298. If there is opportunity to merge such a P-Card functionality with the SCC issued by the Government, we suggest that this be seriously considered as apart from serving the dual purpose as a payment card and an identification for various concessions including those under the \$2 Scheme, such a consolidation could also facilitate other transactional operations should the opportunities to focus benefits on specific age groups arise in the future.

Appendix A

Appendix A: Distribution of Active Elder Cards and Journeys undertaken under the \$2 Scheme by Year of Card Issue (October 2018)

Year of Issue	No. of Active Elder Cards			No. of Elder Card Journeys		
	A-Cards	P-Cards	Total	A-Cards	P-Cards	Total
2008 or before	173,070	28,023	201,093	3,773,216	903,641	4,676,857
2009	35,543	7,880	43,423	891,488	227,550	1,119,038
2010	42,943	4,836	47,779	1,102,331	147,718	1,250,049
2011	49,206	4,680	53,886	1,307,210	155,256	1,462,466
2012	69,355	26,971	96,326	1,893,810	1,035,553	2,929,363
2013	70,065	14,239	84,304	1,936,939	525,838	2,462,777
2014	80,387	10,692	91,079	2,272,876	394,188	2,667,064
2015	96,268	25,368	121,636	2,744,782	872,622	3,617,404
2016	126,059	17,213	143,272	3,544,862	605,848	4,150,710
2017	158,629	15,925	174,554	4,325,276	552,753	4,878,029
2018	171,894	10,449	182,343	4,079,174	349,035	4,428,209
Total	1,073,419	166,276	1,239,695	27,871,964	5,770,002	33,641,966

Source: OCL

Appendix B

Appendix B: Distribution of Journey Numbers under the \$2 Scheme by Cardholders (October 2018)

No. of Journeys	No. of Cards*			% Distribution			Cumulative %		
	Elderly	Persons with Disabilities	Total+	Elderly	Persons with Disabilities	Total	Elderly	Persons with Disabilities	Total
10 or below	471,693	25,157	496,661	38.0	20.9	36.5	38.0	20.9	36.5
11-20	207,027	17,003	223,960	16.7	14.1	16.5	54.7	35.1	53.0
21-30	138,829	12,968	151,766	11.2	10.8	11.2	65.9	45.9	64.2
31-40	109,043	10,800	119,822	8.8	9.0	8.8	74.7	54.9	73.0
41-50	86,881	10,903	97,782	7.0	9.1	7.2	81.8	63.9	80.2
51-60	69,384	10,594	79,986	5.6	8.8	5.9	87.3	72.7	86.1
61-70	52,920	9,253	62,188	4.3	7.7	4.6	91.6	80.4	90.6
71-80	34,421	6,573	40,993	2.8	5.5	3.0	94.4	85.9	93.6
81-90	23,398	4,787	28,191	1.9	4.0	2.1	96.3	89.9	95.7
91-100	16,104	3,618	19,723	1.3	3.0	1.5	97.6	92.9	97.2
101-110	10,816	2,615	13,437	0.9	2.2	1.0	98.5	95.1	98.2
111-120	7,110	1,900	9,014	0.6	1.6	0.7	99.0	96.7	98.8
121-130	4,485	1,414	5,898	0.4	1.2	0.4	99.4	97.8	99.3
131-140	2,709	835	3,544	0.2	0.7	0.3	99.6	98.5	99.5
141-150	1,812	573	2,385	0.1	0.5	0.2	99.8	99.0	99.7
151-160	1,070	345	1,415	0.1	0.3	0.1	99.8	99.3	99.8
161-170	689	260	951	0.1	0.2	0.1	99.9	99.5	99.9
171-180	434	171	605	0.0	0.1	0.0	99.9	99.7	99.9
181-190	278	96	375	0.0	0.1	0.0	100.0	99.7	99.9
191-200	202	75	277	0.0	0.1	0.0	100.0	99.8	100.0
201-210	135	54	189	0.0	0.0	0.0	100.0	99.9	100.0
211-220	71	47	118	0.0	0.0	0.0	100.0	99.9	100.0
221-230	69	25	94	0.0	0.0	0.0	100.0	99.9	100.0
231-240	35	21	56	0.0	0.0	0.0	100.0	99.9	100.0
241-250	27	17	44	0.0	0.0	0.0	100.0	99.9	100.0
251-260	18	15	33	0.0	0.0	0.0	100.0	100.0	100.0
261-270	12	6	18	0.0	0.0	0.0	100.0	100.0	100.0
271-280	4	7	11	0.0	0.0	0.0	100.0	100.0	100.0
281-290	5	7	12	0.0	0.0	0.0	100.0	100.0	100.0
291-300	4	12	16	0.0	0.0	0.0	100.0	100.0	100.0
301-310	2	5	7	0.0	0.0	0.0	100.0	100.0	100.0
311-320	2	2	4	0.0	0.0	0.0	100.0	100.0	100.0
321-330	2	2	4	0.0	0.0	0.0	100.0	100.0	100.0
331-340	3	3	6	0.0	0.0	0.0	100.0	100.0	100.0
341-350	0	2	2	0.0	0.0	0.0	100.0	100.0	100.0
351-360	0	2	2	0.0	0.0	0.0	100.0	100.0	100.0
361-370	0	1	1	0.0	0.0	0.0	100.0	100.0	100.0
371-380	0	2	2	0.0	0.0	0.0	100.0	100.0	100.0
381-390	0	2	2	0.0	0.0	0.0	100.0	100.0	100.0
391-400	0	0	0	0.0	0.0	0.0	100.0	100.0	100.0
Above 400	1	2	3	0.0	0.0	0.0	100.0	100.0	100.0
Total	1,239,695	120,174	1,359,597	100.0	100.0	100.0			

* As proxy for beneficiaries under the \$2 Scheme

+ The totals may not be equal to the sum of Elderly and Persons with Disabilities numbers since the Personalized Octopus Cards with "Persons with Disabilities Status" changed to "Elderly Status" when the cardholder reached the age of 65 during the month.

Source: OCL

Appendix C: Overall Public Transport Journeys in Hong Kong 2008-18

Journeys (Million)	FBs						Rail					PLBs			Ferries*				Taxis	Residents' Services	MTR Buses	Total	
	KMB	CTB	NWFB	LW	NLB	Total	MTR Lines	AEL	Light Rail	HKT	Total	GMBs	RMBs	Total	NWFF	Star Ferry	Others	Total				(All)	(Scheme)
2008	986.5	209.1	175.5	28.9	17.2	1,417.1	1,302.1	10.6	137.7	82.3	1,532.7	526.8	145.7	672.5	13.7	25.2	14.9	53.8	391.7	70.3	34.7	4,173.0	3,472.3
2009	965.2	208.1	171.9	28.2	18.0	1,391.3	1,315.7	9.9	143.5	84.4	1,553.5	534.0	142.4	676.4	12.3	23.8	15.2	51.2	348.3	77.9	37.5	4,136.1	3,473.3
2010	946.7	211.1	172.1	29.4	19.1	1,378.4	1,401.9	11.1	154.5	82.8	1,650.4	549.6	137.0	686.6	12.7	23.0	13.7	49.5	358.3	81.0	40.9	4,245.0	3,574.7
2011	936.4	219.9	175.2	30.3	20.9	1,382.6	1,474.3	11.8	161.3	79.0	1,726.3	559.0	132.6	691.7	13.2	22.3	14.0	49.5	363.7	85.2	44.0	4,342.9	3,670.6
2012	942.9	227.4	179.1	31.3	22.3	1,403.0	1,544.8	12.7	167.2	74.1	1,798.7	558.8	129.3	688.1	13.7	21.7	14.1	49.4	350.0	85.6	46.0	4,420.8	3,769.1
2013	952.8	234.8	182.0	33.2	23.6	1,426.4	1,590.3	13.7	171.7	72.3	1,847.9	552.0	128.4	680.4	14.4	21.7	13.5	49.5	368.8	87.0	47.7	4,507.8	3,837.7
2014	955.2	236.3	177.0	34.8	25.2	1,428.6	1,665.2	14.9	174.2	66.3	1,920.5	551.5	127.4	678.8	14.7	21.0	13.7	49.4	355.0	86.7	50.4	4,569.4	3,919.2
2015	969.2	228.6	169.2	36.7	25.5	1,429.1	1,695.8	15.7	176.1	64.9	1,952.5	558.2	120.8	679.0	14.9	20.2	13.9	48.9	352.7	86.4	50.5	4,599.2	3,958.7
2016	990.1	226.9	167.8	37.3	26.3	1,448.4	1,703.5	16.1	178.7	64.8	1,963.1	559.0	112.5	671.5	14.4	19.5	13.9	47.9	341.5	85.7	50.4	4,608.5	3,987.9
2017	1,005.5	211.5	163.3	39.1	28.4	1,447.8	1,754.1	16.6	178.5	62.8	2,012.1	554.6	107.8	662.4	13.9	19.3	13.6	46.8	327.8	84.6	50.7	4,632.1	4,032.6
2018	1,022.3	219.0	166.4	41.5	30.5	1,479.8	1,796.4	17.7	179.4	60.1	2,053.6	554.1	105.2	659.2	13.4	19.7	13.4	46.5	324.5	82.3	51.0	4,696.9	4,107.1

* Excl. kaitos

Source: TD

Appendix D: Elderly/ Persons with Disabilities Journeys under the \$2 Scheme by Month 2016–18

Journeys (Million)	2016								2017								2018							
	Elderly				Persons with Disabilities				Elderly				Persons with Disabilities				Elderly				Persons with Disabilities			
	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries	FBs	MTR	GMBs	Ferries
Jan	13.38	6.60	5.57	0.17	1.87	1.50	0.75	0.02	14.38	7.36	6.59	0.21	2.02	1.57	0.84	0.02	15.29	8.18	7.31	0.20	2.10	1.73	0.93	0.03
Feb	12.69	6.07	5.25	0.18	1.77	1.31	0.70	0.02	13.25	7.16	5.96	0.20	1.82	1.42	0.77	0.02	13.60	7.07	6.36	0.19	1.88	1.54	0.80	0.02
Mar	13.76	6.40	5.85	0.20	1.90	1.41	0.78	0.02	14.88	7.97	6.86	0.21	2.06	1.61	0.89	0.02	16.10	8.54	7.42	0.24	2.18	1.77	0.94	0.03
Apr	13.38	6.38	5.78	0.19	1.87	1.46	0.77	0.02	14.28	6.44	6.45	0.23	1.96	1.54	0.83	0.03	15.33	7.84	7.16	0.24	2.07	1.66	0.89	0.03
May	14.09	7.00	6.12	0.21	1.96	1.50	0.81	0.03	14.79	7.27	6.87	0.22	2.06	1.62	0.89	0.03	15.71	7.97	7.50	0.22	2.17	1.76	0.95	0.03
Jun	13.33	6.38	6.05	0.17	1.91	1.50	0.82	0.02	13.81	7.71	6.62	0.17	1.98	1.61	0.88	0.02	14.97	7.86	7.22	0.19	2.09	1.70	0.92	0.03
Jul	13.87	6.69	6.20	0.18	1.97	1.54	0.83	0.02	14.21	7.61	6.73	0.18	2.02	1.68	0.89	0.02	15.54	8.48	7.43	0.19	2.17	1.77	0.94	0.03
Aug	13.61	6.87	6.17	0.17	1.94	1.52	0.82	0.02	13.96	7.74	6.71	0.17	1.99	1.62	0.88	0.02	15.53	8.51	7.55	0.19	2.15	1.78	0.96	0.03
Sep	13.98	7.03	6.26	0.18	1.98	1.55	0.83	0.02	14.70	7.84	6.98	0.18	2.07	1.69	0.91	0.02	14.75	7.91	7.25	0.18	2.04	1.73	0.92	0.02
Oct	14.13	6.96	6.27	0.20	1.96	1.54	0.82	0.02	15.12	7.58	7.12	0.22	2.09	1.61	0.91	0.03	16.71	8.81	7.92	0.23	2.27	1.83	0.99	0.03
Nov	13.63	7.21	6.37	0.21	1.93	1.50	0.83	0.02	14.92	8.10	7.16	0.23	2.05	1.68	0.91	0.03	16.02	8.87	7.74	0.24	2.16	1.68	0.97	0.03
Dec	14.87	7.39	6.63	0.22	2.08	1.61	0.86	0.03	15.58	8.13	7.26	0.23	2.15	1.78	0.92	0.03	16.92	9.21	7.87	0.23	2.26	1.86	0.97	0.03
Total	164.72	81.00	72.53	2.28	23.15	17.92	9.63	0.28	173.89	90.90	81.30	2.43	24.27	19.43	10.53	0.31	186.49	99.26	88.73	2.53	25.53	20.80	11.18	0.33

Note: Totals may not add up due to rounding

Source: TD

Appendix E: DF Reimbursement 2012-18

(\$ Million)	FBs		MTR		GMBs		Ferries		Total	
	Elderly	Persons with Disabilities	Elderly	Persons with Disabilities	Elderly	Persons with Disabilities	Elderly	Persons with Disabilities	Elderly	Persons with Disabilities
2012	84.0	29.4	60.4	13.9	0.0	0.0	0.0	0.0	144.4	43.3
2013	240.9	93.6	119.8	26.8	0.0	0.0	14.2	1.4	374.9	121.8
2014	271.9	109.7	139.4	31.7	0.0	0.0	18.5	2.1	429.8	143.5
2015	301.2	120.4	166.5	36.6	140.8	20.0	21.1	2.6	629.6	179.5
2016	317.1	127.2	197.8	42.5	231.4	31.7	21.6	2.6	767.9	204.1
2017	339.2	133.8	229.3	47.6	267.9	35.5	24.2	3.0	860.6	219.9
2018	367.5	141.6	256.7	52.5	300.4	38.5	26.3	3.3	951.0	235.9
2012-18	1,921.9	755.7	1,170.0	251.5	940.4	125.6	125.8	15.0	4,158.1	1,147.9
	2,677.6		1,421.5		1,066.1		140.8		5,306.0	

Source: TD

Appendix F: Distribution of DF Payment per Cardholder (October 2018)

DF	No. of Cards*			% Distribution			Cumulative %		
	Elderly	Persons with Disabilities	Total+	Elderly	Persons with Disabilities	Total	Elderly	Persons with Disabilities	Total
\$50 or below	715,354	34,602	749,726	57.7	28.8	55.1	57.7	28.8	55.1
\$50.1-\$100	239,882	20,687	260,514	19.4	17.2	19.2	77.1	46.0	74.3
\$100.1-\$150	122,657	14,955	137,606	9.9	12.4	10.1	86.9	58.5	84.4
\$150.1-\$200	68,969	11,590	80,556	5.6	9.6	5.9	92.5	68.1	90.4
\$200.1-\$250	37,625	9,247	46,875	3.0	7.7	3.4	95.5	75.8	93.8
\$250.1-\$300	21,572	7,048	28,627	1.7	5.9	2.1	97.3	81.7	95.9
\$300.1-\$350	12,838	5,376	18,218	1.0	4.5	1.3	98.3	86.1	97.2
\$350.1-\$400	7,676	3,985	11,663	0.6	3.3	0.9	98.9	89.4	98.1
\$400.1-\$450	4,871	3,029	7,903	0.4	2.5	0.6	99.3	92.0	98.7
\$450.1-\$500	3,007	2,298	5,305	0.2	1.9	0.4	99.6	93.9	99.1
\$500.1-\$550	1,857	1,717	3,574	0.1	1.4	0.3	99.7	95.3	99.3
\$550.1-\$600	1,122	1,346	2,469	0.1	1.1	0.2	99.8	96.4	99.5
\$600.1-\$650	744	893	1,639	0.1	0.7	0.1	99.9	97.2	99.6
\$650.1-\$700	494	752	1,245	0.0	0.6	0.1	99.9	97.8	99.7
\$700.1-\$750	297	589	886	0.0	0.5	0.1	99.9	98.3	99.8
\$750.1-\$800	209	454	663	0.0	0.4	0.0	100.0	98.7	99.8
\$800.1-\$850	150	370	520	0.0	0.3	0.0	100.0	99.0	99.9
\$850.1-\$900	104	280	384	0.0	0.2	0.0	100.0	99.2	99.9
\$900.1-\$950	72	218	290	0.0	0.2	0.0	100.0	99.4	99.9
\$950.1-\$1,000	59	188	247	0.0	0.2	0.0	100.0	99.5	99.9
\$1,000.1-\$1,050	42	139	181	0.0	0.1	0.0	100.0	99.7	100.0
\$1,050.1-\$1,100	25	83	108	0.0	0.1	0.0	100.0	99.7	100.0
\$1,100.1-\$1,150	11	76	88	0.0	0.1	0.0	100.0	99.8	100.0
\$1,150.1-\$1,200	20	52	72	0.0	0.0	0.0	100.0	99.8	100.0
\$1,200.1-\$1,250	6	38	44	0.0	0.0	0.0	100.0	99.9	100.0
\$1,250.1-\$1,300	7	32	39	0.0	0.0	0.0	100.0	99.9	100.0
\$1,300.1-\$1,350	9	26	35	0.0	0.0	0.0	100.0	99.9	100.0
\$1,350.1-\$1,400	0	14	14	0.0	0.0	0.0	100.0	99.9	100.0
\$1,400.1-\$1,450	3	17	20	0.0	0.0	0.0	100.0	99.9	100.0
\$1,450.1-\$1,500	6	15	21	0.0	0.0	0.0	100.0	100.0	100.0
\$1,500.1-\$1,550	2	11	13	0.0	0.0	0.0	100.0	100.0	100.0
\$1,550.1-\$1,600	3	11	14	0.0	0.0	0.0	100.0	100.0	100.0
\$1,600.1-\$1,650	1	7	8	0.0	0.0	0.0	100.0	100.0	100.0
\$1,650.1-\$1,700	1	6	7	0.0	0.0	0.0	100.0	100.0	100.0
\$1,700.1-\$1,750	0	3	3	0.0	0.0	0.0	100.0	100.0	100.0
\$1,750.1-\$1,800	0	3	3	0.0	0.0	0.0	100.0	100.0	100.0
\$1,800.1-\$1,850	0	3	3	0.0	0.0	0.0	100.0	100.0	100.0
\$1,850.1-\$1,900	0	0	0	0.0	0.0	0.0	100.0	100.0	100.0
\$1,900.1-\$1,950	0	1	1	0.0	0.0	0.0	100.0	100.0	100.0
\$1,950.1-\$2,000	0	2	2	0.0	0.0	0.0	100.0	100.0	100.0
Above \$2,000	0	11	11	0.0	0.0	0.0	100.0	100.0	100.0
Total	1,239,695	120,174	1,359,597	100.0	100.0	100.0			

* As proxy for cardholders

+ The totals may not be equal to the sum of Elderly and Persons with Disabilities numbers, since the Personalized Octopus Cards with "Persons with Disabilities Status" changed to "Elderly Status" when the cardholder reached the age of 65 during the month.

Source: OCL

Appendix G: Projection of Elderly/Persons with Disabilities Numbers to 2031

Elderly Residents

('000)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total population	7,150.1	7,178.9	7,229.5	7,291.3	7,336.6	7,391.7	7,451.0	7,502.6	7,558.1	7,608.4	7,657.7	7,705.4	7,748.4	7,788.7	7,825.2	7,859.6	7,895.2	7,930.5	7,963.8	7,996.2
(of which Elderly)																				
65-69	264.4	295.1	326.3	363.1	395.7	412.3	426.7	446.2	461.3	483.2	509.6	537.4	558.5	577.4	590.3	592.7	605.1	608.7	604.5	590.3
70-74	221.1	213.1	211.5	213.7	220.8	249.7	279.9	311.7	348.1	379.5	395.1	409.7	427.6	442.7	464.3	489.9	516.7	536.8	555.1	567.6
75-79	208.9	210.2	209.3	209.5	206.4	198.1	191.7	191.5	194.4	202.2	230.2	259.4	287.9	322.1	351.3	366.5	380.5	397.6	412.3	432.9
80-84	151.0	157.6	164.7	166.2	167.0	171.4	173.6	174.1	175.7	174.1	167.1	162.5	163.2	166.5	174.2	199.3	225.4	251.0	281.2	306.6
85+	134.5	143.9	152.0	162.1	173.3	183.1	194.3	201.1	207.3	214.7	222.5	230.2	236.8	241.4	244.2	243.4	244.5	249.1	254.3	262.1
	979.9	1,019.9	1,063.8	1,114.6	1,163.2	1,214.6	1,266.2	1,324.6	1,386.8	1,453.7	1,524.5	1,599.2	1,674.0	1,750.1	1,824.3	1,891.8	1,972.2	2,043.2	2,107.4	2,159.5
(% Elderly)	13.7%	14.2%	14.7%	15.3%	15.9%	16.4%	17.0%	17.7%	18.3%	19.1%	19.9%	20.8%	21.6%	22.5%	23.3%	24.1%	25.0%	25.8%	26.5%	27.0%

Source: C&SD

Persons with Disabilities

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Persons with Disabilities (‘000)	85.0	96.0	109.0	118.0	126.0	132.0	139.0	153.0	163.0	172.0	182.0	191.0	201.0	210.0	219.0	227.0	237.0	245.0	254.0	263.0
<i>Persons with Disabilities per</i> <i>‘000 population</i>	12.0	13.3	15.0	16.1	17.1	17.8	18.7	20.4	21.6	22.6	23.8	24.8	25.9	27.0	28.0	28.9	30.0	30.9	31.9	32.9

Note: Historical data on Persons with Disabilities for 2012-18 based on P-card holders. Projection based on average of three separate linear regressions, with Persons with Disabilities numbers separately vs population and time, and Persons with Disabilities per ‘000 population vs time

Elderly Visitors

('000)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total Visitors	48,615.1	54,298.8	60,838.8	59,307.6	56,654.9	58,472.2	65,147.6	71,085.8	74,745.9	78,405.9	82,065.9	85,725.9	89,385.9	93,045.9	96,705.9	100,365.9	104,025.9	107,685.9	111,345.9	115,005.9
Elderly Visitors																				
Estimated % of total visitors	3.90%	3.78%	3.90%	4.10%	4.31%	4.51%	4.79%													
Visitors aged 65 or over	1,896.0	2,052.5	2,372.7	2,431.6	2,441.8	2,637.1	3,120.6	3,128.4	3,306.0	3,483.5	3,661.1	3,838.6	4,016.2	4,193.7	4,371.3	4,548.8	4,726.4	4,903.9	5,081.5	5,259.0
of which Overnight								1,910.3	2,018.7	2,127.1	2,235.5	2,343.9	2,452.4	2,560.8	2,669.2	2,777.6	2,886.0	2,994.4	3,102.9	3,211.3
Same day								1,218.1	1,287.3	1,356.4	1,425.5	1,494.7	1,563.8	1,632.9	1,702.1	1,771.2	1,840.3	1,909.5	1,978.6	2,047.8

Note: Historical elderly visitor figures for 2012-2018 derived from HKTB data. Projections based on linear regression against time over 2008-18, with same day elderly visitors assumed at 39% and average stay overnight visitors assumed at 3.1 days, both 2018 averages.

Appendix H: Projection of Elderly/Persons with Disabilities Journeys under the \$2 Scheme to 2031

Journeys (Million)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Projection based on Beneficiary Group*																				
Elderly	79.6	202.5	222.1	278.9	320.5	348.5	377.0	449.8	501.8	556.0	612.0	669.7	727.5	785.9	843.4	897.9	958.3	1,014.3	1,067.2	1,114.6
Persons with Disabilities	12.3	31.6	36.4	45.0	51.0	54.5	57.8	70.4	77.9	85.0	92.5	99.6	107.1	114.2	121.3	128.0	135.5	142.2	149.3	156.4
Total	91.9	234.0	258.5	324.0	371.5	403.1	434.9	520.3	579.8	641.0	704.5	769.4	834.7	900.2	964.8	1,025.9	1,093.8	1,156.5	1,216.6	1,271.0
Projection based on Transport Mode+																				
FBs	58.6	161.2	174.2	180.8	187.9	198.2	212.0	250.2	274.5	300.1	327.3	355.5	384.0	412.6	440.6	466.1	496.5	523.1	547.7	568.4
MTR	33.3	71.0	82.1	90.0	98.9	110.3	120.1	140.5	156.4	173.1	190.9	209.3	227.9	246.6	264.9	281.5	301.4	318.8	334.9	348.4
GMBs	0.0	0.0	0.0	50.7	82.2	91.8	99.9	117.5	129.7	142.4	155.9	169.9	184.1	198.3	212.3	224.9	240.0	253.3	265.5	275.8
Ferries	0.0	1.8	2.2	2.4	2.6	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.6	4.9	5.2	5.5	5.8	6.1	6.3	6.5
Total	91.9	234.0	258.5	324.0	371.5	403.1	434.9	511.4	564.1	619.3	678.1	739.0	800.6	862.5	923.0	978.0	1,043.6	1,101.1	1,154.5	1,199.1
Consolidated Projection#																				
FBs	58.6	161.2	174.2	180.8	187.9	198.2	212.0	252.3	278.4	305.4	333.7	362.8	392.2	421.6	450.6	477.5	508.4	536.2	562.5	585.4
MTR	33.3	71.0	82.1	90.0	98.9	110.3	120.1	141.7	158.6	176.2	194.6	213.6	232.8	252.0	270.9	288.4	308.6	326.8	343.9	358.8
GMBs	0.0	0.0	0.0	50.7	82.2	91.8	99.9	118.6	131.5	144.9	158.9	173.4	188.0	202.7	217.1	230.4	245.8	259.6	272.7	284.1
Ferries	0.0	1.8	2.2	2.4	2.6	2.7	2.9	3.2	3.5	3.8	4.1	4.4	4.7	5.0	5.3	5.6	5.9	6.2	6.5	6.7
Total	91.9	234.0	258.5	324.0	371.5	403.1	434.9	515.9	571.9	630.2	691.3	754.2	817.6	881.3	943.9	1,001.9	1,068.7	1,128.8	1,185.5	1,235.1
(of which)																				
Elderly	79.6	202.5	222.1	278.9	320.5	348.5	377.0	446.0	495.0	546.6	600.5	656.5	712.7	769.5	825.2	876.9	936.3	990.0	1,040.0	1,083.1
Persons with Disabilities	12.3	31.6	36.4	45.0	51.0	54.5	57.8	69.8	76.9	83.6	90.8	97.7	104.9	111.8	118.7	125.0	132.4	138.8	145.5	152.0
Journeys per Person/ Year																				
Elderly	80	196	206	247	272	283	293	332	352	370	388	404	419	433	446	457	468	477	486	494
Persons with Disabilities	145	329	334	381	405	413	416	456	472	486	499	511	522	533	542	551	559	567	573	578
Elderly/Persons with Disabilities	85	207	218	259	285	295	305	345	364	383	400	416	430	444	456	467	477	487	495	503

* Based on average of linear regression results against time, and respective beneficiary numbers

+ For FBs, MTR and Ferries, based on regression against beneficiary numbers. For GMBs, growth assumed as FBs/MTR.

Average of the two projected totals, with detailed breakdowns spread out according to respective profiles.

Source: Historical data for 2012-2018 from TD

Appendix I: Projection of DF Payments to 2031

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
DF Payment (\$ Million)																				
FBs	113.5	334.5	381.6	421.6	444.3	473.0	509.1	632.2	710.3	793.5	882.6	976.5	1,073.9	1,174.3	1,276.0	1,374.4	1,487.1	1,593.5	1,697.8	1,794.4
MTR	74.3	146.6	171.1	203.0	240.3	276.9	309.2	384.2	447.9	517.3	593.4	675.4	762.3	853.7	948.3	1,042.2	1,149.9	1,254.5	1,358.9	1,458.4
GMBs	-	-	-	160.7	263.1	303.4	338.9	417.6	477.1	541.2	610.6	684.7	762.4	843.5	926.6	1,008.2	1,101.6	1,191.3	1,280.2	1,364.0
Ferries	-	15.6	20.6	23.7	24.2	27.2	29.6	34.3	38.2	42.3	46.8	51.4	56.3	61.3	66.5	71.5	77.2	82.7	88.1	93.1
Total	187.7	496.7	573.3	809.1	972.0	1,080.4	1,186.8	1,468.3	1,673.4	1,894.3	2,133.4	2,388.1	2,654.9	2,932.8	3,217.3	3,496.3	3,815.8	4,121.9	4,424.9	4,710.0
Average DF per Journey (\$)																				
FBs	1.93	2.07	2.19	2.33	2.37	2.39	2.40	2.51	2.55	2.60	2.65	2.69	2.74	2.79	2.83	2.88	2.93	2.97	3.02	3.07
MTR	2.23	2.06	2.08	2.26	2.43	2.51	2.58	2.71	2.82	2.94	3.05	3.16	3.28	3.39	3.50	3.61	3.73	3.84	3.95	4.06
GMBs	-	-	-	3.17	3.20	3.30	3.39	3.52	3.63	3.74	3.84	3.95	4.06	4.16	4.27	4.38	4.48	4.59	4.69	4.80
Ferries	-	8.81	9.29	9.74	9.48	9.92	10.34	10.66	10.92	11.19	11.45	11.72	11.98	12.25	12.51	12.78	13.04	13.31	13.57	13.84
Overall	2.04	2.12	2.22	2.50	2.62	2.68	2.73	2.85	2.93	3.01	3.09	3.17	3.25	3.33	3.41	3.49	3.57	3.65	3.73	3.81

Source: Historical data for 2012-2018 from TD

Appendix J: Summary of Public Transport Concessions for Elderly/Persons with Disabilities in Major Cities

City	Beneficiaries	Eligibility	Concession Card (Type)	Concession
Sydney	Local	<ul style="list-style-type: none"> Aged 60+ (Holders of NSW or most Interstate Seniors Cards) Persons with Disabilities 	<ul style="list-style-type: none"> Gold Opal Card (P-Card) 	<ul style="list-style-type: none"> Fares for seniors capped at AUD\$2.5 per day for Sydney trains, buses, ferries and light rail Persons with Disabilities fares set according to types of disabilities (e.g. vision impaired person - free). If a Person with Disabilities has his Opal Card marked with 'plus attendant' or has a NSW Companion Card, the accompanying attendant will travel free of charge while the Person with Disabilities pays the normal concession fare. Person with severe mobility disabilities may apply for Taxi Subsidy.
London	Local	Aged 60+	Oyster Photocard (P-Card with photo)	Free on bus, Tube, tram, Dockland Light Railway, London Overground, TfL Rail and most national rails at any time except some national rails only offer free travel after 9:30am on weekdays.
		Aged 66+ or Persons with Disabilities	Freedom Pass (P-Card with photo)	Free on most of transport networks, with wider coverage than Oyster Photocard
		Aged 66+ with serious mobility problem	Taxicard (P-Card with photo)	Subsidized trips for licensed taxis and private hire vehicles.
New York	Local/ Tourist	Aged 65+ or Persons with Disabilities	Reduced-Fare Metro Card (P-Card with photo for locals, A-Card for tourists with passport identification)	Reduced fare is half of base fare. Cardholder can take subway, rail and bus at any time except for express bus during non-rush hours only
Toronto	Local / Tourist	Aged 65+	Presto Card (A-Card or P-Card for locals, A-Card for tourists with passport identification)	<ul style="list-style-type: none"> Discount on single trip fares (e.g. adults at CAD\$3 while seniors at CAD\$2.05). Concession on weekly/monthly pass
		Persons with Disabilities (Fair Pass User)	Presto Card (P-Card)	<ul style="list-style-type: none"> Savings of CAD\$1.0 on regular adult fare Concession on monthly Fair Pass discount programmed onto Presto Card
		Support Person of a Person with Disabilities	Support Person Assistance Card (P-Card with photo)	<ul style="list-style-type: none"> Support person accompanying a Person with Disabilities is not required to pay fare.
Vancouver	Local / Tourist	Aged 65+ or Persons with Disabilities	Concession Compass Card (A-Card)	<p>Concession for single trip fares, day pass and monthly pass. Fares are set based on mode of travel, time of day and zones.</p> <p>The helper for a Handy Card user can travel free while accompanying the Person with Disabilities.</p>
Singapore	Local	Aged 60+ or Persons with Disabilities	Senior Citizen Concession Card/ Persons with	<ul style="list-style-type: none"> Concession fares on buses, MRT and LRT.

City	Beneficiaries	Eligibility	Concession Card (Type)	Concession
			Disabilities Concession Card (Both P-Card with photo)	<ul style="list-style-type: none"> • Bus fares set depending on distance travelled and types of services (basic or express). • MRT and LRT fares set based on distance travelled and tap-in time. Tap-in before 7:45am on weekdays will have a significant discount while less discount will be offered for all other time. • Concession fare does not apply when paying cash for travelling on express bus or MRT and LRT. • Frequent travellers can purchase Hybrid Monthly Concession Pass at SGD\$60 for unlimited rides on basic bus and train services within validity period.
Tokyo	Local	Aged 70+ (with income <1.25M yen)	Silver Pass (P-Card)	Free travel for some bus routes within Tokyo area.
Macau	Local	Aged 65+ or Persons with Disabilities	Senior Citizen/ Persons with Disabilities Macau Pass (P-Card with Photo)	Free on normal and express buses.
Shanghai	Local	Aged 65+ or Persons with Disabilities	(Changed to cash subsidies)	Seniors travel at adult fares on metro and buses but receive monthly cash subsidy through the social security account.
Beijing	Local	Aged 60+ or Persons with Disabilities (Age lowered from 65+ in 2019)	Special smart card for retirees and Persons with Disabilities combining various benefits (P-Card with photo)	Free on bus and subway.
Shenzhen	Local Residents/ Temporary Residents/ Tourist	Aged 65+ or Persons with Disabilities	Senior Pass/ Transport Card/ Passport / Identity Card with proof of age (with photo) (<i>Entrance through special gate</i>)	Concession fares for 65+/Persons with Disabilities - Free for bus and Metro
Guangzhou	Local	Aged 60 or older Persons with Disabilities	Senior Citizen Yang Cheng Tong Card (P-Card) Persons with Disabilities Yang Cheng Tong Card (P-Card)	Concession fares for Metro and buses: <ul style="list-style-type: none"> • For aged 65+ – Free on Metro and buses • For aged 60-64 - 50% off for Metro Persons with Disabilities concession depends on level of disability, free if serious otherwise 50%
Taipei	Local/ Tourist	Aged 65 or above Persons with Disabilities with valid disability ID and Companion	Senior EasyCard (P-Card) Charity Card/ Companion Card (Both P-Card)	Concession fares on Metro and buses: <ul style="list-style-type: none"> • For Metro - 60% off; • For Buses - 60 free bus trips per month (or 120 free points), thereafter 50% discount on fares Companion Card will enjoy the same discount as Charity Card only when used at the same gate immediately after the paired Charity Card.

Source: Various government/ corporate websites and available public documents. Research conducted mainly during first quarter 2019.

Appendix K: Summary of Overseas Experience on Fare Abuses

	Fare Evasion	Enforcement and Enhancement	Penalty	Evasion Rates/ Revenue Lost
Sydney	<ul style="list-style-type: none"> - Use of concession card without proof of entitlement - Incorrect fare payment. - No payment 	<ul style="list-style-type: none"> - Authorized revenue protection officers/NSW police officers are responsible for ensuring ticketing compliance. - Use card reader to check balance, recent transactions, concession card type and, for contactless card, the tap-on and tap-off time of last 10 trips 	Issue official caution (no cash penalty unless committing a similar offence in the future) or penalty notice (AUD\$200-\$550)	Estimated fare revenue lost: 2018 (Jan-Jun): AUD\$37M; 2017: AUD\$82M Non-compliance rate: 5.2% (May 2018)
London	<ul style="list-style-type: none"> - No valid ticket - Use of standard ticket for first class seat - No valid proof for use of concession card. 	Revenue Protection Inspectors or Penalty Fares Collector to verify validity of tickets and issue penalty fare notice as appropriate	GBP80 for fare evasion offences (reduced penalty to GBP40 if paid in 21 days)	
New York	<ul style="list-style-type: none"> - No payment (e.g. illegal entry of subway through emergency exit or under turnstile; entry through back door of buses) - Incorrect fare payment (e.g. short change on buses). 	<ul style="list-style-type: none"> - Eagle teams to patrol all bus routes and issue summonses when appropriate and cooperate with NYPD for joint fare enforcement if necessary. - Surveillance cameras installed to identify fare evasion hot spots for additional inspection. - Fare evasion signage on exit gates at all subway stations and entry/exit doors of all buses. - Floor signage and audible passenger announcements at targeted subway stations. 	Penalty of US\$100.	Estimated fare revenue lost: 2018 - US\$225M (Subway:US\$97M; Bus: US128M) Fare evasion rate: Subway: 3.2% (2018); 2.3% (2017) Buses: - 2018: 18.4% (2018); 13.4% (2017)

	Fare Evasion	Enforcement and Enhancement	Penalty	Evasion Rates/ Revenue Lost
Toronto	<ul style="list-style-type: none"> - Fraudulent use of Presto Card (e.g. adult/youth using child card or adult using senior card) - Non-payment (including unauthorized use of crash gates and malfunctioned fare gates) - Other invalid payment (e.g. no proof of payment, no tapping, etc) 	<ul style="list-style-type: none"> - Transit Fare Inspectors to patrol all three key modes of transit and issue provincial offence tickets and summonses when appropriate. - Public education campaign to raise customer awareness of importance of paying proper fare. Security camera video monitored on regular basis. 	Penalty of CAD\$235 to \$435 depending on the jurisdiction	<p>Fare revenue lost: CAD\$64M (2018)</p> <p>Overall 2018 fare evasion rate: 5.4% (Streetcar: 15.2%; Bus: 5.1%; Subway: 3.7%)</p> <p>2016 - 4.9%</p>
Vancouver	<ul style="list-style-type: none"> - No valid ticket or pass - Using concession card without valid proof - Using counterfeit ticket 	Transit Police and Transit Security regularly conduct fare checks to verify validity of fare payment, along with any required identification. Fare infraction ticket issued when appropriate	<ul style="list-style-type: none"> - Fine of CAD\$173 for failure to produce proof of payment with valid identification - Collector will be appointed if fine overdue - The driving license or vehicle insurance may not be renewed - If overdue more than 180 days, additional fine will be imposed. 	Number of fines issued by Transit Police for fare evasion has decreased in recent years: 2016: 23,400 fines 2017: 19,000 fines 2018: 14,500 fines
Singapore	<ul style="list-style-type: none"> - Tailgating or not paying fares - Misusing concession card without proof of entitlement - Underpaying of fare 	Public transport officials to undertake the detection of fare evaders and impose penalty when appropriate.	SGD\$50 for non-payment, under-payment, non-tapping in/out of smartcard or non-entitlement to concession.	Estimated fare revenue lost: 2008: SGD\$10.8M 2015: SGD \$6.1M 2016: SGD \$5.2M
Tokyo	<ul style="list-style-type: none"> - Invalid use of ticket on Japan Rail 		The ticket will be rendered invalid or confiscated and a fine imposed at 3 times the normal fare.	
Shanghai	<ul style="list-style-type: none"> - No valid tickets - Counterfeit concession card - Inappropriate use of concession card 	<ul style="list-style-type: none"> - Inspectors have no lawful authorization to record the abusers' personal information unless accompanying with police. - Images of fare dodgers exposed to allow public becoming more involved in deterring fare evasion. - Inclusion of fare dodgers on the Shanghai Public Credit Service Platform will affect application of housing loan, rental of house, renewal of resident card etc. 	<ul style="list-style-type: none"> - No valid tickets: 5 times normal fares and possibly inclusion in personal credit system - Counterfeit concession card: report to police; - Use of inappropriate concession discount: penalty of CNY 50-500 and demerit on public personal credit record 	

	Fare Evasion	Enforcement and Enhancement	Penalty	Evasion Rates/ Revenue Lost
Beijing	<ul style="list-style-type: none"> - No valid tickets - Counterfeit or altered concession card - Use of inappropriate concession discount 	<ul style="list-style-type: none"> - Facial recognition to identify fare dodgers. - Inspectors to issue confirmation of using invalid ticket and record fare dodgers in Beijing railway's passenger integrity management system. 	<ul style="list-style-type: none"> - Maximum penalty up to 10 times of highest single fare. - For counterfeit concession card, police will be informed and the public credit record may be updated with the evasion charge. 	
Shenzhen	<ul style="list-style-type: none"> - No valid tickets - Counterfeit or altered concession card - Use of inappropriate concession discount - One ticket for a group of people - Use of expired ticket 	<p>Besides routine fare inspection, there will be extensive quarterly inspection by 36 teams of inspectors on each station.</p>	<ul style="list-style-type: none"> - Maximum penalty for up to 10 times of highest single fare. - For counterfeit concession card, police will be informed and demerit penalty may be applied on personal credit record 	
Guangzhou	<ul style="list-style-type: none"> - No valid ticket - Use of expired ticket - Counterfeit or altered concession card - Use of inappropriate concession discount - One ticket for group of travellers 	<ul style="list-style-type: none"> - Routine inspection on fare evasion. - Conduct facial recognition to trace fare dodgers for further action. - Restriction on tapping on and off at the same station for a single journey to prevent repeatedly tapping a ticket for group of travellers 	Highest fare for single trip	
Taipei	<ul style="list-style-type: none"> - No valid tickets - Counterfeit or altered concession card - Use of inappropriate concession discount 	<p>Regular inspection of tickets on train and at the station.</p>	<ul style="list-style-type: none"> - 50 times of normal fare. - Refusal of inspection will be fined TWD\$1,500. 	

Source: Various government/corporate websites and available public documents. Research conducted mainly during first quarter 2019.

Appendix L: Summary of Comments from Public Engagement Sessions

	Public Transport Operators		Beneficiaries	
	Operators on Scheme	Operators not on the \$2 Scheme	Elderly	Persons with Disabilities/DC/AC/RC
Eligibility and scope		<p>RMBs suggest that Government is creating unfair business environment as the elderly will choose the PTOs already on the \$2 Scheme. Impact on income will be more serious with rising number of elderly in the future.</p> <p>If admitted, RMBs provide more choices to the elderly according to convenience and time.</p> <p>Arbitrary adjustment of fares should not be an issue if TD set fixed fares for all RMB routes, and Government could reimburse at the fixed fare less \$2 for each transaction, similar to GMBs.</p> <p>To allay regulatory concerns, the RMBs will be willing to fulfil all TD requirements similar to the PTFSS, with the RMB trade associations helping to monitor the conduct of members to avoid breach of requirements.</p> <p>As HK Tramways is not covered by the \$2 Scheme, the operator has suffered unfair business competition as fare relativity deteriorates and the elderly are attracted to the other modes. Coupled with the reluctance of Government to approve fare adjustments, current operating profits have difficulty supporting increased</p>	<p>The \$2 Scheme should cover people aged 60-64, whether working or not. A higher activity level will keep people healthier, reducing future demand for medical and residential care services.</p> <p>Suggest the \$2 Scheme should cover those who accompany the beneficiaries on their journeys</p> <p>The \$2 Scheme should extend to cover AEL (Airport), MTR (Lo Wu and Lok Ma Chau) as beneficiaries also have need to travel overseas or to the mainland.</p> <p><i>(MTRC already covered Race Course trips on their own account, despite these not being covered under the \$2 Scheme)</i></p>	<p>Suggest registered Persons with Disabilities assessed with less than 100% disability should be included under the \$2 Scheme, at least offered some discounts if not the full benefit.</p> <p>As the primary purpose is to encourage social inclusion, the Registration Card for People with Disabilities should be used as the basis for qualifying under the \$2 Scheme and not CSSA / DA which involve means test.</p> <p>Should also extend Scheme to age 60-64 to encourage beneficiaries taking up work, although the concession fare for this group could be higher.</p> <p>The \$2 Scheme should cover AEL and 'A' routes to/from airport to facilitate beneficiaries going on overseas/ mainland journeys. A counter comment raised is that these better off beneficiaries do not necessarily need support as they already have financial means to cover their travel.</p> <p>Suggest the \$2 Scheme should extend to cover caregivers when accompanying Persons with Disabilities to join activities or see doctors etc., possibly with a reduced level of concession</p> <p>There is currently no definition for the identification of caregiver. SWD should register the caregivers based on some predetermined criteria. The discount to</p>

	Public Transport Operators		Beneficiaries	
	Operators on Scheme	Operators not on the \$2 Scheme	Elderly	Persons with Disabilities/DC/AC/RC
		<p>investment needed for modernisation/enhancement.</p> <p>Residents' bus services are normally operated by the management office of an estate in collaboration with residents' associations. As NFB operations, they are not currently covered under the \$2 Scheme although many residents would like them covered given the benefits.</p> <p>A particular example is Park Island where the ferry service is covered under the \$2 Scheme but not the residents' bus services. This results in some elderly choosing a more circuitous route of taking the ferry to Central before changing to other transport modes for their final destinations, in order to benefit from the \$2 Scheme.</p> <p>Kaito services which are loosely regulated by Government are not currently covered by the \$2 Scheme.</p> <p>Some kaito operators would like to be admitted to the \$2 Scheme to benefit elderly passengers, although many may have difficulty fulfilling regulatory requirements.</p> <p>There are however a few larger kaito operators who are willing to follow more stringent requirements in order to qualify. One of them is already operating ferry services under the \$2 Scheme so should be familiar with the relevant requirements.</p>		<p>caregiver can be in a cash amount included in the monthly CSSA / DA.</p>

	Public Transport Operators		Beneficiaries	
	Operators on Scheme	Operators not on the \$2 Scheme	Elderly	Persons with Disabilities/DC/AC/RC
Fare structure			<p>The \$2 fare under the \$2 Scheme should be reduced to zero, similar to free travel in Shenzhen or 50¢ in Macau.</p> <p>Should consider setting up concession fare categories, such as \$2 for 65-74, free for 75+ etc.</p>	<p>Instead of \$2, set a fixed monthly cash allowance to give beneficiaries more flexibility in managing their transport modes, routes and time of use.</p>
Financial implication of Scheme			<p>The concession should continue as a token reward for past contribution of the elderly. But the apparent prevalence of misuses/ abuses should be tightened up.</p> <p>Suggest the operators should also offer some concession as they enjoy frequent fare increases.</p>	<p>Financial implication can be addressed if the PTOs, which profit from the \$2 Scheme, should make some contribution to the cost of the \$2 Scheme, through reduced reimbursement ratios, or lower regular fare adjustments.</p> <p>Can also consider setting a daily maximum of concession trips, with higher fare charged for extra trips.</p>
P-Cards	<p>Recommend using P-card with name and photo to facilitate inspection and follow-up.</p> <p>Also suggest government to encourage beneficiaries taking initiative to show their P-cards after tapping. This will help reduce frictions/ disputes between drivers and users.</p>	<p>Should use P-cards with names and photos to reduce misuses by non-qualified people. Only P-Cards should be issued for new elder card applications, with anonymous card holders encouraged to change to P-cards, through giving some rewards/ concessions. May be possible to combine the P-Cards with the new smart ID Cards.</p> <p>Consider little privacy concern as disclosing some private identification information should be an obligation to enjoy the benefits under the \$2 Scheme.</p> <p>The beneficiaries should be educated to show their P-Cards after tapping on the Octopus Reader to prove their identity.</p>	<p>General view supports the use of P-cards with the name and photo of the elderly for easy identification, although there is some concern over card conversion and privacy issues.</p>	<p>Persons with Disabilities P-cards should have user photos to facilitate frontline inspection. They could also include the SWD numbers of the users for reference purposes.</p> <p>Suggest the procedure for renewing Persons with Disabilities P-Cards should be simplified. Currently renewal involves medical approval, SWD registration, etc. In comparison, no renewal is required for the Elderly Card.</p> <p>Another issue is with the continued eligibility of a Person with Disabilities under the \$2 Scheme while his disability is under review on expiry of the current term. Currently the Persons with Disabilities P-Card expires while the DA is under renewal. It is suggested the Card should be valid for some weeks more to allow for the renewal process.</p>

	Public Transport Operators		Beneficiaries	
	Operators on Scheme	Operators not on the \$2 Scheme	Elderly	Persons with Disabilities/DC/AC/RC
Short rides on long routes	<p>Consider such practices may have some impact on operations, e.g. extending journey times</p> <p>Suggest no restriction on route choices nevertheless as beneficiaries also need flexibility and convenience.</p>	<p>Consider restriction on route or modal choices unnecessary given the objective of the \$2 Scheme is to encourage more participation in the community.</p>	<p>Consider beneficiaries should be free to choose their routes, noting frequency and wait time concerns. Note that bus companies tend to have more frequency for their long routes than for short routes. The elderly has to take the longer routes sometimes to reduce waiting time.</p> <p>A suggestion is for concession fare for longer routes be increased proportionately, thus bringing back some financial consideration into route choices.</p>	<p>For educational purposes, suggest Government should spread the message through pamphlets or the media, highlighting the adverse effects of such practices on bus operations and public funds.</p>
Section fare / Interchange	<p>Drivers or passengers can select the section fare depending on the setting of Octopus reader. It is however not practical for the drivers to remind each passenger.</p> <p>The beneficiaries on the other hand have no incentive to ask for section fare for travelling on GMBs or tapping a second time on buses, since the concession fare is fixed at \$2.</p> <p>Not charging for lower section fare could result in a higher reimbursement amount for the operators.</p> <p>Need some clear definition for reimbursement arrangement involving bus/bus interchange, which create dispute between TD and operators.</p>		<p>Consider the beneficiaries are not familiar with section fares, and Government should do some public education on the subject.</p> <p>While the beneficiaries have no incentive to request section fare from GMB drivers, the drivers themselves may not want to alert the beneficiaries either because of revenue/ bonus considerations.</p> <p>Consider only \$2 should be charged for an entire journey including any connecting trip. No fare should be charged for the connecting trip.</p>	
Misuses and abuses	<p>Many examples of misuses/ abuses, e.g. tour guides providing Elder Cards to tourists without proper identification; or the elderly selecting high speed ferry or long routes for short trips regardless of higher fares.</p> <p>No clear instruction for operators to handle abuse cases. Nor are there by-</p>	<p>Consider frequent use of \$2 Scheme during work should not be an abuse as Government policy is to encourage elderly employment.</p> <p>But should consider restriction on number of trips to avoid abuses.</p>	<p>Generally aware of possible misuses/ abuses of the \$2 Scheme. But as a Scheme to reward the elderly for their past contributions, unless there is a significant percentage of abuse, it is not advisable to impose restrictions, e.g. on trip numbers or usage during peak periods.</p>	<p>Aware of abuses going on. Some temporary Persons with Disabilities Cards are even reportedly put on sale on the internet.</p> <p>Suggest harsh penalty for fraudulent use of the \$2 Scheme, for example through imposing severe fare penalty or initiation of criminal proceedings.</p>

	Public Transport Operators		Beneficiaries	
	Operators on Scheme	Operators not on the \$2 Scheme	Elderly	Persons with Disabilities/DC/AC/RC
	<p>laws for operators, except MTRC, to enforce inspection, impose penalty and follow up on abuse cases,</p> <p>Very difficult for frontline staff to carry out inspection, especially with Persons with Disabilities who are not easy to identify from appearance.</p> <p>Many disputes between drivers and passengers when asking for identity proof from beneficiaries</p> <p>Follow up on possible abuses cases very difficult for drivers given their primary driving role.</p> <p>Many discrimination complaints from Persons with Disabilities or their guardians feeling offended when asked for identity proof.</p> <p>Suggest Government should form a centralised inspection team to conduct routine and ad hoc inspections and impose penalty when appropriate.</p> <p>Also consider introducing new AI/ IT technology to support inspection rather than relying solely on manual inspection.</p>	<p>Suggest there may be no need to put great effort to eradicate the abuses if they are not serious, given the savings may not justify the cost incurred.</p> <p>Consider imposing higher penalty may be more appropriate alternative, with by-laws to empower operators for proper enforcement.</p>	<p>Closer inspection should be done by the operators as they too benefit from the \$2 Scheme.</p>	
Peak periods	<p>Consider there will be problem for operators if there are too many elderly travelling during peak hours resulting in more pressure on operators to service peak demand.</p> <p>Note nevertheless that not all routes have the same peak hours (e.g. hospital routes), so any restriction on</p>	<p>Suggest no restriction on travelling time for elderly under the \$2 Scheme as they may need to join social activities during peak periods.</p> <p>There should be little concern on elderly travelling during peak periods as they do not prefer congested journeys.</p>	<p>Suggest to encourage the elderly to travel during off peak periods through offering discounts.</p> <p>Consider the elderly would avoid peak hours anyway, but would need flexibility for commuting during peak hours to participate in activities or attend medical appointments.</p>	<p>Consider most Persons with Disabilities would avoid travelling during peak hours unless absolutely necessary.</p> <p>But any restriction during peak periods is unfair as some Persons with Disabilities are still working and need the concession fares.</p>

	Public Transport Operators		Beneficiaries	
	Operators on Scheme	Operators not on the \$2 Scheme	Elderly	Persons with Disabilities/DC/AC/RC
	<p>peak hours may be difficult to apply across the board.</p> <p>Increase of elderly fare for peak hours not recommended given resistance from users and the community. Discounts for off peak hours preferred to promote elderly travel during these periods.</p>			<p>A better alternative would be to offer discounts to Persons with Disabilities during off peak hours as an encouragement.</p>
Tourist	<p>Consider the \$2 Scheme should be limited to local residents.</p> <p>Concessions for tourists could be considered through other channels/schemes, if policy is to promote tourism through such incentives</p>	<p>Consider only local residents should be entitled to the \$2 Scheme as this is a social benefit for citizens.</p> <p>Note nevertheless the \$2 Scheme should continue to benefit mainland tourists, since Hong Kong elderly are given similar benefits on the mainland</p>	<p>Not being taxpayers, tourists should not be covered under the \$2 Scheme.</p> <p>There are many examples of overseas cities restricting transport concessions only to their resident elderly.</p>	<p>Consider the \$2 Scheme should be confined to local residents as a policy to encourage social inclusion of the elderly and Persons with Disabilities. It should not be extended to tourists.</p>
Alternative e-payment	<p>Expect slow introduction of alternative e-payment methods into the public transport sector.</p> <p>But definitively identifying the elderly and Persons with Disabilities will be a hurdle before these alternatives can be used for the \$2 Scheme.</p> <p>Consider the cost of any adjustment/modification to the Octopus system due to any change to the \$2 Scheme or for the inclusion of alternative payment methods should be borne by the Government.</p> <p>A suggestion is for Government itself to operate a neutral settlement platform which is open to all qualified operators on the \$2 Scheme.</p>	<p>A few alternative e-payment methods are actively seeking entry into the public transport market, but so far with only limited success.</p>		

Appendix M: Financial Implications of Different Policy Options

(\$ million)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2021-31
Status Quo												
Baseline DF	1,894.3	2,133.4	2,388.1	2,654.9	2,932.8	3,217.3	3,496.3	3,815.8	4,121.9	4,424.9	4,710.0	35,789.8
Rationalisation												
Inflation Adjusted Fare (\$2.5 for 2020 to catch up, 2.5% thereafter)												
Scheme fare	2.5	2.6	2.6	2.7	2.8	2.8	2.9	3.0	3.1	3.1	3.2	
DF payable	1,571.1	1,735.4	1,905.3	2,077.6	2,250.9	2,421.5	2,580.3	2,760.9	2,923.4	3,075.5	3,207.2	
Saving (M)	323.2	398.0	482.8	577.40	681.9	795.8	916.0	1,054.9	1,198.5	1,349.4	1,502.8	9,280.7
Max Allowance/Month (Residents Only)												
DF payable (\$400/Month)	1,802.1	2,029.6	2,271.8	2,525.7	2,790.1	3,060.8	3,326.0	3,630.1	3,921.3	4,209.3	4,480.0	
Saving	67.2	75.6	84.7	94.1	104.0	114.1	124.0	135.3	146.1	156.9	167.0	1,268.9
Max Journeys/Month (Residents Only)												
DF payable (100 Journeys/Month)	1,824.3	2,054.6	2,299.8	2,556.9	2,824.6	3,098.5	3,367.0	3,674.9	3,969.6	4,261.2	4,535.2	
Saving	44.9	50.6	56.6	63.0	69.5	76.3	82.9	90.5	97.8	104.9	111.7	848.9
Exclude Visitors												
Saving	25.0	28.2	31.6	35.1	38.7	42.5	46.3	50.4	54.5	58.7	63.1	474.2

(\$ million)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2021-31
Enhancement												
Include Aged 60-64												
Residents 60-64 (000)	606.7	608.5	621.3	624.8	620.5	605.7	588.4	560.4	541.9	527.3	524.9	
Visitors (Resident Eq.) (000)	19.4	20.3	21.2	22.1	23.0	23.9	24.8	25.7	26.6	27.5	28.4	
Total	626.1	628.8	642.5	646.9	643.5	629.6	613.2	586.1	568.5	554.8	553.3	
Additional DF* (of which residents)	2,886.6 2,797.3	3,097.6 2,997.7	3,363.6 3,252.7	3,580.7 3,458.5	3,749.5 3,615.5	3,846.1 3,700.2	3,911.1 3,753.0	3,899.6 3,728.6	3,931.3 3,747.4	3,977.6 3,780.4	4,102.1 3,891.5	40,345.7 38,723.0
Include RMBs												
Additional DF (17 routes) (of which residents)	27.3 26.9	29.2 28.8	31.2 30.8	33.3 32.8	35.4 34.9	37.5 37.0	39.6 39.0	41.9 41.4	44.2 43.6	46.3 45.7	48.3 47.6	414.0 408.6
<i>(If aged 60-64 included)</i>												
Additional DF (17 routes) (of which residents)	16.1 15.6	16.5 16.0	17.2 16.6	17.6 17.0	17.8 17.2	17.7 17.0	17.6 16.8	17.1 16.3	16.8 16.0	16.7 15.9	16.9 16.0	187.9 180.5
Include Kaitos												
Additional DF (10 routes) (of which residents)	1.6 1.6	1.7 1.7	1.8 1.8	2.0 1.9	2.1 2.1	2.2 2.2	2.3 2.3	2.5 2.5	2.6 2.6	2.8 2.7	2.9 2.8	24.5 24.2
<i>(If aged 60-64 included)</i>												
Additional DF (10 routes) (of which residents)	0.9 0.9	1.0 0.9	1.0 1.0	1.0 1.0	1.1 1.0	1.0 1.0	1.0 1.0	1.0 1.0	1.0 1.0	1.0 0.9	1.0 1.0	11.1 10.7

• Based on full adult fares and 90% of all passenger activity level

(\$ million)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2021-31
Possible Policy Scenario (Lower age threshold, extend modal coverage & exclude visitors)												
Baseline	1,894.3	2,133.4	2,388.1	2,654.9	2,932.8	3,217.3	3,496.3	3,815.8	4,121.9	4,424.9	4,710.0	35,789.8
Extend coverage to RMBs	27.3	29.2	31.2	33.3	35.4	37.5	39.6	41.9	44.2	46.3	48.3	414.0
Extend coverage to Kaitos	1.6	1.7	1.8	2.0	2.1	2.2	2.3	2.5	2.6	2.8	2.9	24.5
	1,923.2	2,164.4	2,421.1	2,690.2	2,970.3	3,257.0	3,538.2	3,860.2	4,168.7	4,474.0	4,761.1	36,228.4
Lower age threshold to 60	2,886.6	3,097.6	3,363.6	3,580.7	3,749.5	3,846.1	3,911.1	3,899.6	3,931.3	3,977.6	4,102.1	40,345.7
Extend coverage to RMBs/Kaitos	17.1	17.5	18.2	18.6	18.9	18.8	18.6	18.1	17.8	17.7	17.9	199.0
	2,903.7	3,115.0	3,381.8	3,599.3	3,768.4	3,864.9	3,929.7	3,917.6	3,949.2	3,995.2	4,120.0	40,544.8
Exclude visitors	(115.2)	(129.1)	(143.5)	(158.4)	(173.8)	(189.6)	(205.7)	(222.7)	(239.9)	(257.4)	(275.3)	(2,110.6)
Overall	4,711.7	5,150.3	5,659.4	6,131.1	6,564.9	6,932.3	7,262.1	7,555.2	7,878.0	8,211.8	8,605.8	74,662.5