

中華人民共和國
香港特別行政區政府
The Government of the Hong Kong Special Administrative Region
of the People's Republic of China

政府總部
運輸及物流局

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Email

Ms Sophie LAU
Clerk to Panel on Transport
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms LAU,

**Panel on Transport of Legislative Council
Meeting on 17 May 2024**

**Supplementary Information for the Evaluation on the Effectiveness of
Time-Varying Tolls at the Three Road Harbour Crossings**

In response to the Members' request for supplementary information raised at the Panel on Transport meeting on 17 May 2024 regarding the agenda item "Evaluation on the Effectiveness of Time-Varying Tolls at the Three Road Harbour Crossings", we provide the relevant information in the **Annex** for Members' information.

Yours sincerely,


(CHENG Sze-ling)

for Secretary for Transport and Logistics

c.c. Commissioner for Transport (Attn.: Mr LEUNG Sai-ho)

Follow up Action:

The Administration was requested to provide the following supplementary information on the cross-harbour vehicles during peak and non-peak hours after the implementation of time-varying tolls:

(a) proportions of different vehicle classes every hour; and

Administration's response:

1. The proportions of the weekday hourly traffic flows of (i) all vehicles, (ii) private cars and motorcycles, (iii) taxis and (iv) other commercial vehicles to the cross-harbour traffic flows of the relevant vehicle classes across the three Road Harbour Crossings (RHCs) before and after the implementation of time-varying tolls are set out in **Annex I**, **Annex II**, **Annex III** and **Annex IV** respectively.
2. According to our data, after the implementation of time-varying tolls, the proportion of daily traffic flow (all vehicles) at Western Harbour Crossing (WHC) increased from about 32% to about 38%, while that of Cross Harbour Tunnel (CHT) decreased from about 39% to about 35% and Eastern Harbour Crossing (EHC) from about 29% to about 27%. The situation was similar for both private cars and motorcycles.
3. For taxis, since the taxi toll has been standardised at \$25 starting from August 2023, many taxis have switched from using CHT and EHC to WHC, where the toll level has been lowered, resulting in a significant diversion effect. After the implementation of the time-varying tolls, the proportion of daily taxi flow at WHC has decreased but remained the highest among the three RHCs, whereas that of CHT increased and that of EHC largely remained the same.
4. For other commercial vehicles (including goods vehicles, minibuses and buses), with the uniform toll at \$50 effective from December 2023, the proportion of their daily traffic flow at WHC has increased, while that of CHT decreased and that of EHC largely remained the same.
5. Overall, the new tolls have rationalised the distribution of cross-

harbour traffic, where traffic is no longer concentrated at CHT and EHC. The spare capacity of WHC has been better utilised and the cross-harbour traffic has been smoother than before. The Transport Department (TD) will continue to closely monitor the cross-harbour traffic conditions.

(b) data showing that cross-harbour bus traffic was smoother than before.

Administration's response:

1. According to our observations, the traffic conditions at CHT and EHC have improved after the implementation of time-varying tolls at the three RHCs, where the queues at CHT and EHC during the peak hours were generally reduced by more than 1 km and 0.5 km respectively. The average vehicle speeds on the roads connecting to the tunnel entrances at CHT and EHC have increased, which is conducive to the operational efficiency of the cross-harbour bus services. In view of the increased traffic flow at WHC, the TD has provided an additional bus-only lane at the portal of WHC which helps improve the efficiency of cross-harbour bus services. The TD does not maintain or survey the vehicle speed of individual vehicle class at the three RHCs.

**Proportion of weekday hourly cross-harbour traffic flows of all vehicles
before and after the implementation of time-varying tolls (TVT) at the three RHCs**

| Time | WHC | | CHT | | EHC | |
|------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|
| | Before TVT ¹ | After TVT ² | Before TVT ¹ | After TVT ² | Before TVT ¹ | After TVT ² |
| 00:00 - 01:00 | 21% | 31% | 57% | 47% | 22% | 22% |
| 01:00 - 02:00 | 22% | 31% | 57% | 48% | 21% | 22% |
| 02:00 - 03:00 | 21% | 30% | 59% | 48% | 20% | 21% |
| 03:00 - 04:00 | 20% | 31% | 60% | 49% | 20% | 21% |
| 04:00 - 05:00 | 18% | 33% | 63% | 47% | 19% | 20% |
| 05:00 - 06:00 | 23% | 36% | 59% | 44% | 18% | 20% |
| 06:00 - 07:00 | 20% | 33% | 55% | 41% | 25% | 26% |
| 07:00 - 08:00 | 29% | 38% | 38% | 32% | 33% | 30% |
| 08:00 - 09:00 | 37% | 39% | 31% | 30% | 32% | 30% |
| 09:00 - 10:00 | 38% | 40% | 31% | 31% | 30% | 29% |
| 10:00 - 11:00 | 35% | 40% | 34% | 31% | 31% | 28% |
| 11:00 - 12:00 | 34% | 39% | 36% | 33% | 30% | 27% |
| 12:00 - 13:00 | 32% | 39% | 38% | 34% | 30% | 26% |
| 13:00 - 14:00 | 32% | 39% | 39% | 35% | 29% | 26% |
| 14:00 - 15:00 | 34% | 40% | 36% | 33% | 30% | 26% |
| 15:00 - 16:00 | 35% | 41% | 34% | 33% | 31% | 27% |
| 16:00 - 17:00 | 35% | 40% | 35% | 33% | 30% | 27% |
| 17:00 - 18:00 | 37% | 39% | 32% | 32% | 31% | 29% |
| 18:00 - 19:00 | 39% | 40% | 30% | 30% | 31% | 30% |
| 19:00 - 20:00 | 34% | 38% | 36% | 34% | 30% | 28% |
| 20:00 - 21:00 | 26% | 34% | 47% | 40% | 27% | 25% |
| 21:00 - 22:00 | 25% | 33% | 49% | 42% | 26% | 24% |
| 22:00 - 23:00 | 25% | 32% | 49% | 43% | 26% | 24% |
| 23:00 - 24:00 | 23% | 31% | 52% | 46% | 25% | 23% |
| Whole-day | 32% | 38% | 39% | 35% | 29% | 27% |

Notes :

1. From 4 to 8 December 2023
2. From Mondays to Fridays in April 2024, excluding public holidays and days affected by public holidays (e.g. 1 to 5 April).
3. Traffic queues at the tunnels (if any) are not included in the proportions of the above table; due to rounding, breakdowns may not add up to 100%.

Proportion of weekday hourly cross-harbour traffic flows of private cars and motorcycles¹ before and after the implementation of time-varying tolls (TVT) at the three RHCs

| Time | WHC | | CHT | | EHC | |
|------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|
| | Before TVT ² | After TVT ³ | Before TVT ² | After TVT ³ | Before TVT ² | After TVT ³ |
| 00:00 - 01:00 | 14% | 30% | 62% | 47% | 24% | 24% |
| 01:00 - 02:00 | 14% | 30% | 61% | 46% | 26% | 24% |
| 02:00 - 03:00 | 14% | 29% | 62% | 47% | 24% | 24% |
| 03:00 - 04:00 | 13% | 29% | 61% | 48% | 26% | 23% |
| 04:00 - 05:00 | 13% | 32% | 62% | 45% | 25% | 23% |
| 05:00 - 06:00 | 19% | 37% | 57% | 42% | 24% | 21% |
| 06:00 - 07:00 | 15% | 31% | 53% | 40% | 32% | 29% |
| 07:00 - 08:00 | 25% | 35% | 38% | 33% | 37% | 32% |
| 08:00 - 09:00 | 33% | 32% | 31% | 35% | 36% | 33% |
| 09:00 - 10:00 | 36% | 33% | 30% | 35% | 35% | 32% |
| 10:00 - 11:00 | 33% | 35% | 33% | 35% | 35% | 30% |
| 11:00 - 12:00 | 33% | 37% | 34% | 35% | 33% | 28% |
| 12:00 - 13:00 | 31% | 37% | 36% | 37% | 32% | 27% |
| 13:00 - 14:00 | 31% | 37% | 37% | 37% | 32% | 26% |
| 14:00 - 15:00 | 33% | 37% | 34% | 36% | 33% | 27% |
| 15:00 - 16:00 | 34% | 38% | 33% | 36% | 33% | 27% |
| 16:00 - 17:00 | 34% | 37% | 34% | 36% | 33% | 27% |
| 17:00 - 18:00 | 35% | 33% | 31% | 36% | 34% | 30% |
| 18:00 - 19:00 | 36% | 35% | 30% | 33% | 34% | 32% |
| 19:00 - 20:00 | 30% | 34% | 37% | 36% | 33% | 30% |
| 20:00 - 21:00 | 22% | 32% | 48% | 41% | 30% | 27% |
| 21:00 - 22:00 | 20% | 32% | 51% | 43% | 29% | 26% |
| 22:00 - 23:00 | 20% | 31% | 53% | 44% | 28% | 25% |
| 23:00 - 24:00 | 17% | 30% | 56% | 46% | 27% | 25% |
| Whole-day | 30% | 34% | 38% | 37% | 33% | 29% |

Notes :

1. Including motor tricycles
2. From 4 to 8 December 2023
3. From Mondays to Fridays in April 2024, excluding public holidays and days affected by public holidays (e.g. 1 to 5 April).
4. Traffic queues at the tunnels (if any) are not included in the proportions of the above table; due to rounding, breakdowns may not add up to 100%.

**Proportion of weekday hourly cross-harbour traffic flows of taxis
before and after the implementation of time-varying tolls (TVT) at the three RHCs**

| Time | WHC | | CHT | | EHC | |
|------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|
| | Before TVT ¹ | After TVT ² | Before TVT ¹ | After TVT ² | Before TVT ¹ | After TVT ² |
| 00:00 - 01:00 | 29% | 30% | 49% | 49% | 22% | 21% |
| 01:00 - 02:00 | 29% | 30% | 50% | 49% | 21% | 21% |
| 02:00 - 03:00 | 29% | 29% | 51% | 49% | 20% | 21% |
| 03:00 - 04:00 | 28% | 29% | 52% | 50% | 20% | 21% |
| 04:00 - 05:00 | 29% | 31% | 50% | 47% | 21% | 22% |
| 05:00 - 06:00 | 38% | 39% | 42% | 41% | 20% | 20% |
| 06:00 - 07:00 | 40% | 39% | 37% | 38% | 23% | 23% |
| 07:00 - 08:00 | 54% | 48% | 18% | 25% | 29% | 27% |
| 08:00 - 09:00 | 64% | 55% | 9% | 18% | 26% | 27% |
| 09:00 - 10:00 | 62% | 52% | 10% | 19% | 28% | 29% |
| 10:00 - 11:00 | 58% | 48% | 13% | 23% | 30% | 29% |
| 11:00 - 12:00 | 56% | 46% | 14% | 27% | 29% | 27% |
| 12:00 - 13:00 | 56% | 47% | 16% | 28% | 28% | 25% |
| 13:00 - 14:00 | 55% | 46% | 16% | 29% | 28% | 24% |
| 14:00 - 15:00 | 57% | 48% | 14% | 27% | 28% | 26% |
| 15:00 - 16:00 | 59% | 49% | 13% | 26% | 28% | 25% |
| 16:00 - 17:00 | 60% | 50% | 13% | 25% | 27% | 25% |
| 17:00 - 18:00 | 60% | 52% | 13% | 23% | 27% | 25% |
| 18:00 - 19:00 | 61% | 53% | 13% | 21% | 26% | 26% |
| 19:00 - 20:00 | 54% | 48% | 19% | 27% | 27% | 25% |
| 20:00 - 21:00 | 41% | 38% | 34% | 40% | 25% | 22% |
| 21:00 - 22:00 | 40% | 35% | 36% | 42% | 24% | 23% |
| 22:00 - 23:00 | 39% | 34% | 36% | 43% | 25% | 23% |
| 23:00 - 24:00 | 34% | 32% | 42% | 47% | 24% | 22% |
| Whole-day | 49% | 44% | 25% | 32% | 26% | 25% |

Notes :

1. From 4 to 8 December 2023
2. From Mondays to Fridays in April 2024, excluding public holidays and days affected by public holidays (e.g. 1 to 5 April).
3. Traffic queues at the tunnels (if any) are not included in the proportions of the above table; due to rounding, breakdowns may not add up to 100%.

Proportion of weekday hourly cross-harbour traffic flows of other commercial vehicles (including goods vehicles, minibuses and buses) before and after the implementation of time-varying tolls (TVT) at the three RHCs

| Time | WHC | | CHT | | EHC | |
|------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|
| | Before TVT ¹ | After TVT ² | Before TVT ¹ | After TVT ² | Before TVT ¹ | After TVT ² |
| 00:00 - 01:00 | 16% | 36% | 69% | 45% | 16% | 20% |
| 01:00 - 02:00 | 12% | 36% | 74% | 46% | 14% | 18% |
| 02:00 - 03:00 | 9% | 35% | 77% | 47% | 14% | 18% |
| 03:00 - 04:00 | 9% | 35% | 77% | 47% | 14% | 17% |
| 04:00 - 05:00 | 8% | 35% | 80% | 49% | 12% | 16% |
| 05:00 - 06:00 | 8% | 32% | 79% | 49% | 13% | 19% |
| 06:00 - 07:00 | 11% | 32% | 72% | 46% | 17% | 22% |
| 07:00 - 08:00 | 25% | 41% | 51% | 32% | 24% | 26% |
| 08:00 - 09:00 | 32% | 47% | 44% | 27% | 25% | 26% |
| 09:00 - 10:00 | 31% | 45% | 45% | 30% | 24% | 25% |
| 10:00 - 11:00 | 26% | 43% | 48% | 31% | 26% | 26% |
| 11:00 - 12:00 | 23% | 40% | 50% | 33% | 27% | 27% |
| 12:00 - 13:00 | 21% | 39% | 53% | 34% | 26% | 27% |
| 13:00 - 14:00 | 21% | 40% | 54% | 34% | 25% | 26% |
| 14:00 - 15:00 | 23% | 41% | 50% | 32% | 27% | 27% |
| 15:00 - 16:00 | 25% | 42% | 48% | 31% | 28% | 27% |
| 16:00 - 17:00 | 26% | 44% | 48% | 30% | 26% | 26% |
| 17:00 - 18:00 | 29% | 47% | 46% | 27% | 25% | 26% |
| 18:00 - 19:00 | 33% | 48% | 42% | 25% | 25% | 27% |
| 19:00 - 20:00 | 26% | 44% | 51% | 31% | 22% | 25% |
| 20:00 - 21:00 | 19% | 37% | 62% | 40% | 19% | 23% |
| 21:00 - 22:00 | 18% | 36% | 65% | 43% | 17% | 21% |
| 22:00 - 23:00 | 18% | 36% | 66% | 43% | 17% | 21% |
| 23:00 - 24:00 | 16% | 36% | 67% | 44% | 17% | 20% |
| Whole-day | 24% | 42% | 52% | 33% | 24% | 25% |

Notes :

1. From 4 to 8 December 2023
2. From Mondays to Fridays in April 2024, excluding public holidays and days affected by public holidays (e.g. 1 to 5 April).
3. Traffic queues at the tunnels (if any) are not included in the proportions of the above table; due to rounding, breakdowns may not add up to 100%.