

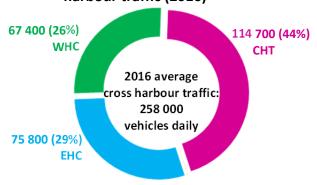
Research Office Legislative Council Secretariat



ISSH23/16-17

## **Road harbour crossings**

Figure 1 – Distribution of average daily cross harbour traffic (2016)\*



\* Figures may not add up to the total due to rounding.

Figure 2 – Daily average traffic flows and designed capacities of the three RHCs (2016)

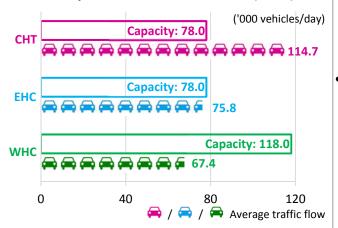
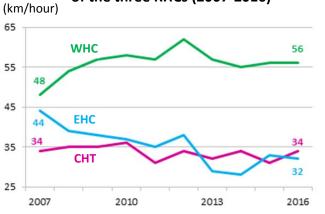


Figure 3 – Average speeds in morning peak hours of the three RHCs (2007-2016)



## Highlights

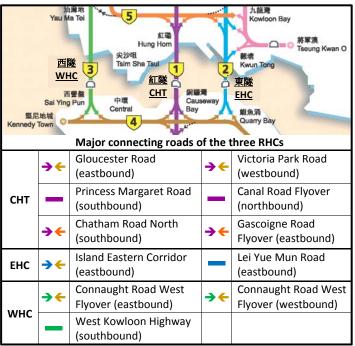
- There is wide public concern about the uneven distribution of traffic among the Cross-Harbour Tunnel ("CHT"), Eastern Harbour Crossing ("EHC") and Western Harbour Crossing ("WHC").
- Among the above three road harbour crossings ("RHCs"), CHT is the most heavily utilized which accounted for 44% of the daily average cross harbour traffic in 2016 (Figure 1). Its all-day throughput of about 114 700 vehicles exceeded the tunnel's design capacity by nearly 50% in 2016 (Figure 2). In comparison, EHC was close to saturation and WHC was running well below its design capacity.
- Reflecting the heavy use of EHC and CHT, the average speeds at both tunnels in morning peak hours were both about 40% slower than that of WHC in 2016 (Figure 3). The average speed at EHC was reduced from 44 km/hour to 32 km/hour during 2007-2016 amid increased daily traffic flow of the tunnel over the period. CHT fared no better as the tunnel's average speed in 2016 remained unchanged at the 2007 level of 34 km/hour.
- The above uneven traffic distribution is due to, among other things, differential toll levels charged at CHT, EHC and WHC. As shown in **Figure 4** below, the toll levels at WHC are much higher than those of CHT and EHC. Indeed, WHC's tolls increased five times during the past 10 years while tolls at the other two RHCs have remained unchanged over the period. Among all major users of WHC, private cars and taxis saw the biggest toll rises of 63% and 71% respectively.

## Road harbour crossings (cont'd)

Figure 4 – Toll levels currently at the three RHCs and their cumulative increases since 1 Jan 2008

Major users	СНТ		EHC		WHC	
Private cars	\$20	(-)	\$25	(-)	\$65	(个63%)
Taxis	\$10	(-)	\$25	(-)	\$60	(个71%)
Goods vehicles	\$15 - \$30	(-)	\$38 - \$75	(-)	\$75 - \$130	(个18% - 36%)

Figure 5 - Connectivity of the three RHCs#



# Not to scale.

Figure 6 – Improvement of accessibility to and from WHC

Construction works surrounding WHC (Target completion date)	Design capacity	
An elevated single lane carriageway connecting the elevated Nga Cheung Road (2018)	Not available	
The Central – Wan Chai Bypass and the Island Eastern Corridor Link (2018)	5 400	
The Central Kowloon Route (2025)	5 400	

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- The locations of the three RHCs also add to the uneven distribution of traffic.
   In particular, CHT has a clear natural advantage over the other two RHCs given its central location and connectivity, which means shorter journeys, greater convenience and lower fuel costs for its users (Figure 5).
- running below its design capacity. In addition to high toll levels, the traffic flow of WHC has been constrained by the congested traffic conditions at its connecting roads. Nonetheless, some improvements should be seen in 2018 with the completion of the elevated single lane carriageway connecting Nga Cheung Road to the WHC southbound toll plaza (Figure 6). Added to this, the completion of the Central-Wan Chai Bypass in 2018 will further help WHC accommodate more traffic.
- infrastructure projects, the takeover of EHC upon its franchise expiry in 2016 should also provide the Government with more options for rationalizing the distribution of traffic among the three RHCs. Indeed, the Government has already undertaken a study on the rationalization plan. According to the Secretary for Transport and Housing, the Government would complete the study and submit toll adjustment proposals covering the three RHCs to the Legislative Council for discussion within the 2017-2018 legislative year.

Data sources: Latest figures from the Transport
Department and the Western Harbour Tunnel Co. Ltd.

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