For information
December 2015

Legislative Council Panel on Transport
Subcommittee on Matters Relating to Railways

Hong Kong Section of the
Guangzhou-Shenzhen-Hong Kong Express Rail Link ("XRL")

Economic Benefits of the XRL and
Cost Incurred due to Suspension and Termination

INTRODUCTION

In response to questions raised by Members at the meeting of the Subcommittee on Matters Relating to Railways ("RSC") dated 4 December 2015, this paper provides supplementary information on the updated economic benefits of the XRL and the costs incurred if the XRL were suspended and eventually terminated.

ECONOMIC BENEFITS

2. Generally speaking, in estimating the **direct** economic benefits of a transport infrastructure, we refer to the cost savings due to time savings of passengers, the cost savings in the operation of other public transport modes and the cost savings due to accident reduction. In the case of XRL, the majority (more than 90%) of the direct economic benefits come from the cost savings due to passenger time savings. In the paper submitted to the RSC (CB(1)503/09-10(02)) in November 2009, the benefits brought about by the cost savings due to passenger time savings as a result of the XRL over 50 years of operation (discounted to 2009 prices at a rate of 4%) in the Base Case was about $87 billion, with an Economic Internal Rate of Return ("EIRR") of about 6%.

3. Given the short period of time available, we have estimated again the relevant figures by using the transport model adopted in the paper submitted to the RSC in November 2009 and inputting updated data (such as growth rate in population and gross domestic product).

The updated benefits estimated to be brought about by the cost savings due to passenger time savings as a result of the XRL over 50 years of operation (discounted to 2015 prices at a rate of 4%) would be about $90 billion, with an EIRR of 4%. The decrease in EIRR as compared with the figure in 2009 (6%) is mainly due to the increase in capital cost for construction of the XRL, the slower growth in population and the slower economic growth in the Pearl River Delta. However, it should be borne in mind that using only the EIRR, as derived above, to estimate the benefits of the XRL project presents only part of the picture and is in fact conservative since the other indirect economic and social benefits, which could be substantial but are difficult to be easily and instantly quantified, have not been taken into account.

4. The indirect benefits or positive impacts, which cannot be easily and instantly quantified, that would be brought about by the XRL were elaborated in the paper submitted to RSC in November 2009. These points remain valid today. They include:

(a) improved connectivity with Mainland cities by linking the national high speed rail network;
(b) induced/additional patronage;
(c) fostering market integration and mutual complement with Pearl Delta Region;
(d) creation of employment opportunities in construction, railway operation and further indirect sectors;
(e) enhancing development of service industry;
(f) promoting development of tourism;
(g) benefits and opportunities to re-allocate transportation resources;
(h) environmental benefits; and
(i) transport service of higher quality.

5. The greatest benefit of the construction of XRL is to connect Hong Kong to the many different Mainland cities and provinces. In turn, this will foster closer economic ties between Hong Kong and the Mainland and extend Hong Kong's reach into the Mainland hinterland, helping to strengthen the strategic position of Hong Kong as the southern gateway to the Mainland.

COST OF SUSPENSION AND TERMINATION

Temporary Suspension/Termination of Project

6. As explained in the LegCo paper no. CB(4)280/15-16(02) submitted to the RSC on 30 November this year, if the XRL contracts were suspended or even terminated, there would be additional expenditure incurred to the project including costs for –

(a) settlement of contractors' claims;
(b) upkeeping of essential staff and plants on site as well as arranging regular maintenance and inspection for the unfinished works during suspension period;
(c) securing and protecting the unfinished works, tunnel and works sites, upkeeping the temporary traffic management scheme and monitoring of ground water to address safety concerns; and
(d) termination of all employment contracts, cancelling works subcontracts, compensation of rental agreements and demobilisation of plants.

7. If the application for additional funding for the XRL project cannot be approved by LegCo Finance Committee by end February 2016, as a responsible project manager, the MTR Corporation Limited ("MTRCL") may need to issue a suspension notice to its contractors in order to keep the total cost (including suspension costs) within the amount allocated by the Government, i.e. $65 billion. The MTRCL assessed that the suspension cost would be about **$0.233 billion per month**. If so, with each month passing from end-February 2016, instead of spending money on constructing the XRL, the money would be spent on suspension-related items. The XRL contracts between MTRCL and the contractors allow for a suspension period of a maximum of 180 days (about six months). If the XRL contracts are subsequently terminated after the 180 days of suspension, there will be another lump-sum cost to terminate including settlement of historical claims and costs of protecting the works at about **$3.4 billion**. The total additional cost incurred above could therefore be in the region of **$4.8 billion (i.e. $0.233 billion x 6 months + $3.4 billion)**. The Monitoring and Verification ("M&V")

Consultant advises the Highways Department that this estimation of additional cost incurred is reasonable. MTRCL also points out that should the works be suspended or terminated, the contractors may take a different view as to their entitlements for the cost of works completed, which would lead to a lot of disputes and a much higher additional cost to the XRL project. The M&V Consultant concurs with this view.

Resumption after Termination

8. If the existing XRL contracts were terminated, it might take two to three years before the contracts could be resumed because new tenders would have to be invited to engage new contractors to finish the remaining works. During the interim, it might be sufficient to provide minimum protection to the unfinished works. Under this scenario, the MTRCL (assuming that the Corporation will remain as the Project Manager) would need to arrange new contractors to proceed with the outstanding works. The construction costs would likely further escalate due to the possible increase in labour and material costs. Furthermore, due to increase in difficulty and risk to the new contractors to work on the unfinished works, the returned tender price would likely be much higher. Together with the additional costs for design review, project management, insurance and maintenance of the existing works during the waiting period, M&V Consultant estimates, as a ballpark figure, that the resumption cost until completion of the project could be up to $28.2 billion. Together with the cost for suspension/termination of $4.8 billion (as referred to in paragraph 7 above), the cost estimated to be incurred under this scenario is about **$33 billion**.

Abandonment of XRL Project

9. If the XRL project were abandoned, the designs and the unfinished works of the XRL project would become **abortive**. It should also be noted that the additional expenditure of $4.8 billion as referred to in paragraph 7 above assumes that the XRL project would eventually be resumed within two to three years after suspension or termination of existing XRL contracts. Hence, only minimum amount of protection, such as temporary stabilisation would be provided to the unfinished works. Part of the works will still rest on temporary supports, and

temporary roads would be maintained as their current status and would not be reinstated immediately.

10. However, if the XRL project were abandoned, **the Entrustment Cost of $65 billion would be wasted**. The Government would still need to complete most of the remaining works, including the remaining short section of railway tunnel, most of the civil and structural works at West Kowloon Terminus ("WKT") (including excavation works, structural columns, slabs within the Terminus and the rooftop) and the permanent road network around WKT (including the road tunnel at Lin Cheung Road and Austin Road and the road network around Jordan Road) in order to ensure that the safety of the public would not be compromised and people would not suffer from a long-term traffic inconvenience. A very rough estimate by the M&V Consultant is that the cost for completing these essential works would be no less than **$10.6 billion**. Furthermore, Government would need to continue maintaining these works until there is a new initiative for their use. Rough estimates of the maintenance cost could be as much as **$0.1 billion** per year. Separate approval from LegCo would have to be sought for the above additional amounts of money. Together with the loss of Entrustment Cost of $65 billion (which includes the cost for suspension/termination of $4.8 billion as referred to in paragraph 7 above), the total cost estimated to be incurred under this scenario is at least **$75.6 billion**.

11. About 75% of the XRL works have already been completed. As the XRL involves a lot of construction contracts, termination of these contracts would cause unemployment. Abandonment of the project will result in huge abortive works leading to unnecessary wastage of social resources and billions of additional cost. Furthermore, the benefits brought about by the XRL set out in paragraphs 3 and 4 above would also be lost. This will undoubtedly weaken the competitiveness and development potential of Hong Kong. It is imperative that we proactively endeavor to complete the remaining works according to the revised programme such that the substantial benefits of the XRL could be realised as early as possible in order to promote the development and progress of Hong Kong.

Transport and Housing Bureau
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