

***Credit Ratings Of
Mass Transit Systems***

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EXECUTIVE SUMMARY

1. The Transport Panel of the Legislative Council (LegCo) requested research on the effects on credit ratings and cost of financing if the fare revision mechanism of mass transit operators were to be changed to require approval by the LegCo. To gather the necessary information, the Research and Library Services Division (RLS) sent enquiries to four credit rating agencies and 16 banks. These financial institutions are chosen because they are either leading corporations or they have business relationship with the mass transit operators in Hong Kong. Three banks have not responded.
2. Three credit rating agencies generally regard the fare setting mechanism an important factor in rating the transport operators, while one credit rating agency is reluctant to disclose its rating policy. The pricing policy of banks varies case by case. Major factors include the purpose of the loan, the financial strength and the relationship with the company, the regulatory framework, the loan market conditions, the industry factor, and the general economic environment.
3. If the fare revision is changed to require approval by the LegCo, two credit rating agencies point out the possibility of increasing uncertainties on the operators. However, it is difficult to estimate the exact effect on credit ratings at this stage because the impacts on the operators may vary.
4. Information collected from the banks does not show the precise effects on cost of financing as the details of the proposed fare revision mechanism have not been finalized and the banks' pricing policy is affected by many other factors. Nevertheless, some banks indicate that such a change would increase uncertainties, which would subsequently increase the cost of financing.
5. Moreover, relevant overseas comparisons are sought. The RLS sent requests to Singapore, Osaka, Seoul, Paris, New York, Los Angeles, Toronto, and London to obtain financial information. These cities are chosen because they are metropolitan cities with mass transit systems for commuters. Three cities have not responded. The RLS also requested the four agencies and the operators in Hong Kong to provide relevant overseas examples. Their replies did not provide such examples.
6. Generally speaking, the mass transit systems in Hong Kong have certain operational features which are not commonly shared by other cities -- the feature is financing on its own terms. Because of different operational features, mass transit systems in the surveyed overseas cities have different means of raising funds. In Singapore, the Mass Rapid Transit Corporation does not borrow because it does not have to repay the construction costs and its operating revenues are sufficient to cover its operating costs. The municipal governments of Osaka, Seoul, and Toronto raise funds for their operators. In London, borrowings of the operator are done through the Government Treasury.

Abbreviations

KCRC	Kowloon-Canton Railway Corporation
LegCo	Legislative Council
MRTC	Mass Rapid Transit Corporation, Singapore
MTRC	Mass Transit Railway Corporation
RLS	Research and Library Services Division, Legislative Council Secretariat

CREDIT RATINGS OF MASS TRANSIT SYSTEMS

PART 1 - INTRODUCTION

1 Background

1.1 In April 1996, the Transport Panel of the Legislative Council (LegCo) requested research in the fare revision process of mass transit systems in Hong Kong. A survey was conducted on the practices of monitoring mass transit systems in overseas cities, with particularly emphasis on fare control mechanism.

1.2 In July 1996, the Panel further requested research on the effects on credit ratings and cost of financing if the fare revision mechanism of mass transit operators were changed to require approval by the LegCo.

2 Objective

2.1 The objective of this paper is to provide information on this subject so as to assist Members in assessing the effects on credit ratings and cost of financing if the fare revision of mass transit operators is approved by the LegCo.

2.2 The scope of the study, as defined by the Panel, is :

- (i) the effects on credit ratings of Kowloon-Canton Railway Corporation (KCRC) and Mass Transit Railway Corporation (MTRC) as well as their abilities to raise funds if a different mode of control on the fare revision is introduced; and
- (ii) a comparison of the means of raising funds and cost of financing amongst railway organizations in overseas cities.

3 Methodology

- 3.1 To gather the necessary information, the Research and Library Services Division (RLS) reviewed relevant literature, discussed with bankers, and sent enquiries to KCRC, MTRC, four credit rating agencies, and 16 banks. These financial institutions are chosen because they are either leading corporations or they have business relationship with the mass transit operators. Three banks have not responded to the enquiries. Because of the confidentiality of business policies, credit rating agencies and banks are reluctant to disclose their names. On this ground, alphabets are used to represent these financial institutions.
- 3.2 For international comparison, the RLS sent requests to Singapore, Osaka, Seoul, Paris, New York, Los Angeles, Toronto, and London to obtain the required financial information. These cities are chosen because they are metropolitan cities with mass transit systems for commuters. Osaka, Singapore, Seoul, Toronto, and London have responded. In addition, the RLS requested the four credit rating agencies and the operators in Hong Kong to provide relevant overseas examples comparable to Hong Kong. Their replies provided no such examples.
- 3.3 This report summarizes the available information from these sources.

PART 2 - CRITERIA FOR DETERMINING CREDIT RATINGS AND INTEREST RATES

4 Criteria for Determining Credit Ratings

4.1 Three credit rating agencies generally regard the fare setting mechanism as an important factor in rating the transport operator concerned. One credit rating agency is reluctant to disclose its rating policy. The details of the rating policies of each credit rating agency are summarized below.

Credit Rating Agency A

4.2 Financial analysis employed for mass transit operators is basically the same as that for other business corporations. The Agency focuses on the following aspects :

- (a) Efficiency of the operation;
- (b) Trend of growth in the operation;
- (c) Fare setting structure;
- (d) Competitiveness against other modes of transport;
- (e) Significance of side businesses, e.g. real estate development; and
- (f) Future investment plans and management strategy.

4.3 In many cases, transport operators are public companies, and can expect certain support from the government. This enhances the creditworthiness of the operators, but the impact on the ratings is subject to the strength of the government support, based on the following criteria :

- (a) Importance of the operator in the government's transport policy;
- (b) Dominance of the operator in the country's transport system;
- (c) Government ownership; and
- (d) Legal status of the operator.

Credit Rating Agency B

4.4 The Agency first seeks to determine the degree of risk in the business environment in which a company operates; and second to consider the business risk in the context of the financial structure, financial performance, financial policies, and business strategy of the company concerned.

4.5 Mass transit operations are highly capital intensive and have long life cycles. In raising capital, investors need to have confidence in the capacity for the asset to generate expected returns over prolonged period. As expected, the higher the uncertainty, the higher is the cost of financing.

Credit Rating Agency C

4.6 The criteria for rating mass transit operators depend on the structure of the industry and the regulatory environment. If a public transport operator has legal or financial links with a government body, the Agency appraises the effects of these links on the creditworthiness of the operator. These include :

- (a) Government ownership; and
- (b) Government subsidy.

4.7 On the other hand, an operator which is privately owned and independent of any financial or economic relationship with a government body is appraised using the same criteria as for any private business corporation.

Credit Rating Agency D

4.8 Information is not provided because the Agency is reluctant to disclose its rating policy.

5 Criteria for Determining Interest Rates

5.1 The pricing policy of banks varies case by case. Generally speaking, relevant factors include the purpose of the loan, the financial strength and the relationship of the company, the regulatory framework, the loan market conditions, the industry factor, market conditions, and the general economic environment. A summary of the banks' views is provided below.

Bank A

5.2 The criteria used in determining the level of interest rates are many, and vary from one company to another.

Bank B

5.3 The criteria for determining the interest rates for lending to a mass transit operator include the financial strength of the operator, the market share in the local transport industry, track records/reputation, prospects, and its relationship with the Bank. Market conditions prevailing at the time of making the loan are also taken into consideration.

Bank C

5.4 There are many criteria for the Bank to determine the interest rates of the loan. The major factors are :

- (a) Purpose of the loan;
- (b) Background of the company;
- (c) Financial performance;
- (d) Cash flow projection; and
- (e) Overall business environment (e.g. inter-bank rate).

Bank D

5.5 The Bank's criteria in determining the interest rates when a mass transit operator raises funds include :

- (a) Business prospects;
- (b) Capability and experience of the borrower;
- (c) Credit standing and repayment ability (in terms of profitability, asset structure , cash flow, liquidity and gearing position);
- (d) Loan purpose, size and tenor;
- (e) Franchise conditions;
- (f) Regulatory framework;
- (g) Project risk and viability (for a specific project financing);
- (h) Availability and quality of collateral (if any); and
- (i) Business relationship with the borrower.

Bank E

5.6 The interest rates reflect the borrower's creditworthiness, which is affected by various factors, such as the borrower's financial position, business prospects, and the quality of senior management. For mass transit operators, the extent of government backing will also be considered.

Bank F

5.7 KCRC and MTRC are both statutory corporations wholly-owned by the Hong Kong Government although governed by separate ordinances. In determining lending margins, KCRC and MTRC are both regarded as government agencies; hence, theoretically interest rates should reflect Hong Kong Government risk. However, setting lending margins is not an exact science and many factors can affect margins. Therefore, although they are similar entities, margins can differ according to relationship, loan appetite, loan market conditions, and loan maturity.

Bank G

5.8 In general, interest rates are determined with reference to the amount being borrowed, security provided, and the credit standing of the borrower.

Bank H

5.9 The interest rates are determined by :

- (a) Tenor of the loan;
- (b) Financial strength of the operators;
- (c) Security offered by the operators; and
- (d) Cash flow of the operators.

Bank I

5.10 The interest rates that the Bank charges to any borrowing client are dependent primarily on the Bank's internal assessment of credit risk -- the ability of the borrowing entity to repay on time and otherwise in accordance with the credit agreement. When evaluating and pricing a specific credit facility to a corporate borrower, the Bank conducts a review of the risk factors over the life of the transaction. Important considerations include :

- (a) Financial strength;
- (b) Loan purpose, size and tenor;
- (c) Regulatory framework;
- (d) Management quality;
- (e) Political and economic environment; and
- (f) Relationship of borrowing entity to the Bank.

Bank J

5.11 Criteria for setting interest rates are not given in the Bank's reply.

Bank K

5.12 Each transport company represents a specific risk and its terms and pricing are assessed in light of equity strength, shareholder support, management team, company policies, quality of services and equipment, and cash flow generation.

Bank L

5.13 No information has been provided.

Bank M

5.14 The Bank seldom offers such loans to public transport operators, and have no comments on the subject.

PART 3 - EFFECTS ON CREDIT RATINGS AND COST OF FINANCING

6 Effects on Credit Ratings

6.1 Three credit rating agencies consider the fare setting mechanism an important factor in determining credit ratings. One agency did not provide any information. Two agencies point out the possibility of increasing uncertainties if the fare revision were changed to require approval by the LegCo. Nevertheless, the agencies find it difficult to estimate the exact effect on credit ratings at this stage because the impacts on the operators may vary. The views of the agencies are given below.

Credit Rating Agency A

6.2 The fare setting mechanism is one of the key concerns when the Agency rates the operators. The Agency pointed out that

“MTRC’s high degree of management autonomy, including fare setting mechanism. This has enabled the operator to attain prudent financial management, making it one of the most efficient subway systems in the world.”

6.3 The Agency does not have any general rule to reflect the effects on the ratings of a change in the fare setting mechanism. It is impossible for the Agency to estimate the effects on the current credit ratings for MTRC, which is the only public transport operator in Hong Kong rated by the Agency. The Agency has to obtain more information to assess the exact effects on the creditworthiness of the operator.

Credit Rating Agency B

6.4 For mass transit operators, one concern is that the rules of the game change over the investment period. Given the size of investments involved and the prolonged periods of exposure to risks, the implications of uncertainty can be important.

6.5 Removing MTRC of its fare setting autonomy will reduce its financial flexibility and reduce the certainty of its environment. Replacing a well-tested arrangement would mark a departure from the regulatory structure which has prevailed for some time. The introduction of a new fare setting mechanism can be regarded in a negative light from the credit perspective.

6.6 The Agency cannot prejudge the precise rating effects on the operators. The extent to which legislative action affects the cash flow will be weighed against the other factors indicated in the rating criteria (see paragraphs 4.4-4.5).

Credit Rating Agency C

6.7 The current fare revision proposals would introduce uncertainty into the operations of the transport companies. This may affect the credit ratings of the operators. However, it is difficult to state what the theoretical effects on the operator's credit ratings might be because one has to take into account how much of the revenue, profits, and cash flow of a transport company could be adversely affected.

Credit Rating Agency D

6.8 No information has been provided.

7 Effects on the Cost of Financing

7.1 Information collected from the banks does not show the precise effects on the cost of financing, as the details of the proposed fare revision mechanism have not been finalized in the LegCo and the pricing policy is affected by many other factors mentioned in Section 5. Nevertheless, some banks indicate that such a change would increase uncertainties, which may subsequently increase the cost of financing.

Bank A

7.2 Any assessment of the effects of a change in fare setting mechanism on interest rates would also need to consider the individual financial standing of the company concerned, the level of competition in its sector, the elasticity of demand for its services, and a host of other factors. It is therefore very difficult to estimate the subsequent effects on the profits, working capital, and financial standing of the operator.

Bank B

7.3 If the fare revision is approved by the LegCo, the mass transit operators will be restricted in their ability to set the fare levels. Any cutback in fare revision proposals will affect the cash flow, working capital, profits, and therefore cost of financing. However, the financial effects on the transport operators will be different from case to case. Hence, the Bank cannot estimate the effects without knowing the details of the new fare revision mechanism.

Bank C

7.4 It is difficult to assess the effects on the operators. Nevertheless, there will be effects if the future cash flow is affected. In the case of a bank taking a conservative approach, it may adopt a worse cash flow scenario. Consequently, the interest rates may be upwardly adjusted. Whether or not it is possible to estimate the financial effects on each operator depends on how the proposed mechanism will be finalised in the LegCo. Without further details, it is impossible to quantify the precise effects for the time being.

Bank D

7.5 Whether the fare revision is approved by the LegCo is an issue for the Bank to consider in determining interest rates. However, it is difficult to estimate the financial effects on the operators.

Bank E

7.6 If fare revision is approved by the LegCo, the fare revenue becomes more uncertain, which will affect the borrower's financial position and cost of financing.

Bank F

7.7 The effects on the cost of financing are likely to be subjective, gradual and may differ from one financial institution to another. The current policy of KCRC and MTRC on fares is to revise annually having regard to inflation and competition. Any external control on fare revision may reduce revenue. This in turn may affect the profitability and debt servicing capacity of the operators, and hence theoretically can translate into higher cost of financing.

7.8 It is difficult to assess the financial effects on the operators. It depends on future capital expenditure requirements and the level of debt. The ability of the operators to access different sources of financing further complicates the ultimate financial effect.

7.9 The KCRC and MTRC Ordinances have specifically granted powers to the entities to revise fares without consent from the LegCo. To remove such power requires the amendment of the Ordinances which can be subject to varying interpretation and judgment by the financial community. It is likely that such interpretation will not be favorable from a lender's point of view. In addition, Bank F advocates that

“it is important to allow MTRC and KCRC to continue to operate under ‘prudent commercial principles’ -- a policy and formula which have worked well for Hong Kong.”

Bank G

7.10 Fare revision mechanism is one of the crucial factors in credit assessment and determination of financing margin. However, the Bank has not encountered any cases of such nature to date, and therefore the Bank is unable to quantify the effects at this stage.

Bank H

7.11 As the debt-servicing ability of the operator depends on the fare revenue, any rejection by the LegCo regarding fare revision will have a negative impact to the profitability of the operator. Thus, the operator's cost of financing may increase.

Bank I

7.12 The Bank addresses this issue in the context of MTRC, which has a long business relationship with the Bank. The proposed fare revision mechanisms would have serious, long-term negative effects on the operator's financial situation, credit ratings, cost of financing, and access to diversified funding sources.

Bank J

7.13 If the current fare revision process is amended, the Bank views that the credit ratings and cost of financing of the operators would be negatively affected. It is difficult to assess at this stage whether credit limits would be reviewed as well. Moreover, lenders consider cash flow. Anything which is beyond the operator's control and affects the cash flow will create uncertainty. In addition, Bank J expressed the following opinion:

"We consider that Hong Kong shows an unique example of good management, particularly in finance, and should treasure as most as possible a proven 'happy' history of its rail operators."

Bank K

7.14 Given the criteria of the Bank mentioned in paragraph 5.12, restriction to fare revision certainly has an impact on the operator's profit and cash flow. Hence, this would have negative effects on the terms and conditions awarded.

Bank L

7.15 No information has been provided.

Bank M

7.16 The Bank seldom offers such loans to the public transport operators,
and has no comments on the subject.

PART 4 - INTERNATIONAL COMPARISON

8.1 This part aims to seek relevant overseas examples for comparison with Hong Kong. The overseas cities chosen are Singapore, Osaka, Seoul, Paris, New York, Los Angeles, Toronto, and London. Singapore, Osaka, Seoul, Toronto, and London have responded.¹ However, the mass transit systems in Hong Kong have certain operational features which are not commonly shared by other cities (Table 1) -- the feature is financing on its own terms. Two other features are shared with Singapore and London, namely operating on commercial principles and recovering operating costs.

Table 1 - Operational Features of Mass Transit Systems

Operational Features	Hong Kong	Singapore	Osaka	Seoul	Toronto	London
Financing on its own terms	✓	X	X	X	X	X
Operating on commercial principles	✓	✓	X	X	X	✓
Recovering operating costs	✓	✓	X	X	X	✓
Providing services to commuters	✓	✓	✓	✓	✓	✓
Locating in metropolitan city	✓	✓	✓	✓	✓	✓
Serving the urban area	✓	✓	✓	✓	✓	✓

Remark : Information from Paris, New York, and Los Angeles has not been provided.

Sources : Bushell, C., Jane's Urban Transport Systems 1995-96.
Land Transportation Bureau of Seoul.
London Transport.
Osaka Municipal Transportation Bureau.
Singapore Land Transport Authority.
Toronto Transit Commission.

¹ In addition to sending enquiries to overseas cities, the RLS requested the four credit rating agencies and the operators to provide relevant overseas examples comparable to the operations in Hong Kong., It is difficult to find such examples from their replies.

8.2 In Hong Kong, both KCRC and MTRC borrow on commercial terms. The two major sources of financing are bank loans and capital market instruments. In the case of MTRC, commercial papers are issued. The outstanding balance at end-1995 amounted to HK\$9,459 million, 64% of which were denominated in foreign currencies. For KCRC, bearer bonds were issued in October 1991. As the bonds mature in October 1996, it has been re-classified to current liabilities.

8.3 Because of different operational features, mass transit systems in the surveyed overseas cities have different means of raising funds. In Singapore, the Mass Rapid Transit Corporation (MRTC) does not require any borrowings because it does not need to repay the construction costs as the system was constructed by the Government. The municipal governments of Osaka, Seoul, and Toronto raise funds for their mass transit operators. In London, borrowings of the underground operator are done through the Government Treasury. However, these cities have not provided the details of the means of raising funds and the cost of financing.

Singapore

8.4 MRTC does not need any borrowings to finance its operations because the system was constructed by the Government. Retained earnings are sufficient to recover operating costs. Hence, MRTC does not have credit ratings from credit rating agencies.

Osaka

8.5 The municipal government of Osaka issues public bonds for the operator. The RLS has not been able to ascertain exactly which Osaka municipal public bond was issued with the specific purpose of raising funds for the Osaka mass transit operator.

Seoul

8.6 Upon demand of the operator, the municipal government of Seoul issues public bonds. The primary source of funds is from the domestic financial market. The RLS has not been able to ascertain exactly which Seoul municipal public bond was issued with the specific purpose of raising funds for the Seoul mass transit operator.

Toronto

8.7 The operator does not borrow from the financial markets directly. Rather, the Provincial Government of Ontario and Metropolitan Council of Toronto are responsible for the financing. The RLS has not been able to obtain information on the amount of financing needed for maintaining the Toronto mass transit system.

London

8.8 Funds are raised through the Government Treasury. Operators are not permitted to borrow from the financial markets directly as the Treasury is responsible for controlling the total amount of borrowings by the public sector. At the same time, mass transit operators would not be able to borrow on terms as advantageous as those given to the Treasury since government risks are the lowest. The RLS has not been able to ascertain how much of the funds raised by the Treasury has been allocated to the London mass transit operator.

References

1. Black, A., *Urban Mass Transportation Planning*, 1995.
2. Bushell., *Jane's Urban Transport Systems 1995-96*.
3. Japan Bond Research Institute, Reports on Issues of Hong Kong, 12 June 1995.
4. Johnson, J.C., *Contemporary Transportation*, 3rd edition.
5. Kowloon-Canton Railway Corporation, Annual report 1995.
6. Mass Transit Railway Corporaton, Annual Report 1995.
7. Mass Transit Railway Corporation, Financial Profile 1996.
8. Moody's Investors Service, Mass Transit Railway Corporation, August 1995.
9. Shaw, S.J., *Transport Strategy and Policy*, 1995.
10. Standard & Poor's, *AsiaFocus*, July 1996.
11. Standard & Poor's, *Corporate Ratings Criteria*.
12. Standard & Poor's, *Credit Ratings: A Guide*.
13. Standard & Poor's, "Hong Kong: Mass Transit Railway Corporation", *Standard & Poor's Creditweek International*, March 6, 1995. pp. 94-96.
14. Standard & Poor's, *Global Sector Review: Transportation*, August 1995.
15. Standard & Poor's, *Municipal Finance Criteria 1995*.
16. Standard & Poor's, *Industry Commentary: Utilities Rating Criteria*, August 1996.
17. Stubbs, P.C. and Tyson, W.J., *Transport Economics*, 1992.