MEMORANDUM

to: Public Accounts Committee (cc Premier, Acting Governor, Deputy Director Overseas Territories)

re: Ministry of Finance (MoF) report "Airport Redevelopment Options – Financial Comparison" (Comparison Report)

from: Craig Mayor

date: October 19, 2016

I am writing further to my report to the Premier entitled "Bermuda Airport Development, Exigent Economic Risks and Omitted Due Diligence (August 12, 2016)", which was copied to the Director, UK Overseas Territories. It is important to note The Government of Bermuda (GoB) has not commented. In contrast, the Deputy Director Overseas Territories (Foreign and Commonwealth Office) in his summary response stated (September 15, 2016) "on reflection it appears the points identified in the report will be most appropriate for the Bermudian Government to address."

It is of considerable concern that the Comparison Report (August, 2016) contains significant and unacceptable errors and omissions in its financial methodology and assumptions. Substantial defects include the following:

(i) G2G Costs understated by $810m. Costs of transferring Net Revenues to Project Co ($27m/year) were omitted from the G2G and DBFOM options. Consequently for the G2G option, Total Undiscounted Cash Flow (UCF) costs reported by MoF ($585m) are understated by $810m ($440m NPV) and should have been reported as $1,395m ($762m NPV). Errors of this magnitude are inexcusable. (see page 7 for Net Revenue transfer analysis).

(ii) Evaluation of Deficits, Debt and Credit Ratings Ommitted. For all options, the Comparison Report did not evaluate the impact of UCFs on GoB's Deficit, Debt and Credit Ratings. Under the G2G option, additional costs ($1,395m) will be reflected in GoB's Financial Statements (FS) as increases in Deficits and Debt, causing commensurate declines in GoB Debt Capacity and Credit Ratings.

(iii) Failure to review Debt Metrics was highlighted in the Deloitte report. Failure to evaluate the impact of UCLs on Deficit and Debt is alarming and unacceptable. Even more so because (a) the Deloitte's report on the Airport Development Project (May 8, 2015) stated GoB needed to "broaden its assessment of affordability" including "government borrowing metrics and credit ratings" and (b) careful scrutiny of Debt impact is mandatory at a time when the MoF says Bermuda is approaching bankruptcy.

(iv) NPVs irrelevant to analysis of Debt Metrics. The Comparison Report states "this report discusses nominal cash flows, this is merely for informational purposes. The key figure that should be used for comparison of the various options is the net present value ("NPV") number." As Bermuda is approaching Default, the review of Debt metrics (affordability) is considerably more important than NPVs, which are of secondary concern. NPVs have no direct effect on amounts recorded in the financials and cannot be used to evaluate Deficit and Debt metrics.

(v) A "Repair to Build Later" option not evaluated. MoF did not identify or evaluate further options such as "Repair to Build Later," under which minimal repairs and upgrades would be made to Wade to enable it to operate satisfactorily for a further 10-15 years with the intention of re-evaluating the cost/benefits of building during this time period. Over 15 years, the retention of existing airport revenues is estimated to increase GoB cash inflows by approximately $455m. This results in a Net Cash Flow Surplus of $355 after deducting assumed expenditures of $100m for essential repairs. This option would also enable MoF to forecast arrivals and future airport specifications with far greater accuracy and certainty at a later date.

(vi) "Completely Off Balance Sheet" financing statement is incorrect.

MoF incorrectly stated "the DBFOM and G2G scenarios where the airport is financed completely off GOB's balance sheet (i.e., GOB is not liable for repayment of the debt)." Under Generally Accepted Accounting Principles the Revenue Guarantee provided to Project Co will be recorded as a Contingent Liability in the Notes to GoB's Balance Sheet. Increased liabilities will impoverish GoB's financial strength, Debt capacity and Credit Ratings. With excessive Debt ($2.4bn) and declining ratings, this loss of Debt capacity increases the risks of Default. By comparison, under Stand Alone financing, Project Co loans would not be recorded in GoB financials and would therefore have no effect on GoB Debt and Credit Ratings.

(vii) DB Capital Cost ($575m) is illogical. In the DB option, MoF mathematically adjusted the HNTB 2008 Estimated Cost ($514m) to arrive at the 2016 cost ($575m). The 2008 AT specifications and costs are irrelevant to the 2016 specifications and costs. For evaluation purposes, MoF should have used $250m per the 2016 G2G option. Use of the adjusted 2008 Capital Cost ($575m) is inappropriate and inconsistent with capital budgeting principles.

(viii) Incorrect Use of Annual Cash Flows. Only Incremental Cash Flows[1] are applicable to NPV and IRR evaluations. For certain cash flow items (Airport Operating Cash Flows, Maintenance Costs and Retained Government Services) it appears that MoF has incorrectly used Total Annual Costs (2017-2046) instead of the Incremental Cash Flows. This overstates the total UCF and NPV costs for these items

(ix) Invalid Assumption that G2G Tourist Arrivals exceed EBA Arrivals. MoF made illogical assumptions that tourist arrivals will be greater under the DBFOM and G2G options than under the EBA and DB options because "traffic will be higher with a private entity operating the airport." This is as nonsensical as asserting that people go to Disney Land or London because they like the Orlando or London airports respectively.

(x) Wade unlikely to survive Category 4 hurricane storm surge. GoB states that EBA is not viable because of Wade's high susceptibility to storm surge damage, which could damage Wade beyond repair. This contradicts findings in the 2008 Master Plan study by HNTB which stated Wade can be protected from Category 4 storm surge by the use of Berms. MoF appears not to have evaluated the low cost alternative of increasing the height of the existing berm, nor has it published or referred to engineering surveys to refute the efficacy of this option.

(xi) NPVs cannot be used to Compare Projects with different lives. NPV costs cannot be used to evaluate the best option for projects with different lives. The projects are not comparable. For example, assuming EBA will not last 30 years without the need for further repairs, the NPV for EBA ($258m) cannot be compared with the G2G NPV ($322m over 30 years). Projects with unequal lives can be evaluated using either the least common multiple of lives approach (eg determine total NPVs of cash flows assuming Wade is repaired/upgraded 2 times over 30 years) or the equivalent annual annuity approach. It was therefore invalid for MoF to directly compare the NPVs for EBA and G2G.

Unreliable Information and Inappropriate Decision Making

The concepts of incremental cash flows are universally used for Capital Budgeting (e.g. NPV, IRR and Payback analyses). As noted, few of the estimated UCF and NPV costs and assumptions in the Comparison Report are correct. Correct decision making is not possible when based on erroneous financial and qualitative analysis.

A few months before GoB is expected to commence construction, MoF has

[1] An incremental cash flow is the difference in a company's cash flows with (after) and without (before) the project. E.g. new quango costs caused by DBFOM and G2G options.

issued a Comparison Report as a part of its efforts to retroactively demonstrate that G2G is the best and only option for Bermuda**.** The widespread errors in MoF's basic finance raise very serious concerns about the accuracy and integrity of its analysis throughout its negotiations with CCC/Aecon. Justification of G2G lacks credibility.

Deloitte Report (May 8, 2015) and UK Letter of Entrustment (July 17, 2015)

The Deloitte report on the Airport Project (May 8, 2015) stated GoB did not (a) assess options to determine the best approach for Bermuda and (b) economically justify building a new AT. In other words, MoF pursued plans to build a new AT without evaluating the option to repair Wade.

The deficiencies identified by Deloitte were so significant that the UK Foreign Commonwealth Office (FCO) issued a condemning Letter of Entrustment to GoB (July 17, 2015). This stated, inter alia (a) the UK Government had considerable concern for the continuing decline in Bermuda's Fiscal situation and sustainability (ie its excessive Debt and proximity to Bankruptcy caused by excessive Debt) and (b) GoB must provide a written report ("justification report") before the contract can be signed, that demonstrates the required measures to meet the deficiencies noted in the Deloitte Report have been met.

Implications

The substantial deficiencies in the Comparison Report together with (a) the predetermined decision to build AT without justification; (b) failure to provide credible analysis demonstrating the need to relocate AT due to surge/sewage problems and (c) the release of a "scare mongering" film that omits financial costs and qualitative evaluations of the option to repair Wade and (d) May 15, 2016 disclosure (OBA presentation) that costs to repair Wade were $115m, followed three months later with an incomprehensible 60% increase in estimated repair costs ($184m per the Comparison Report, further indicate the existence of numerous inexcusable errors in MoF's analysis and/or its retroactive attempts to make the G2G option appear to be best.

Conclusions

The Comparison Report is not credible and does not justify (i) reasons to build a new AT and (ii) the economics of spending $585m for AT under the G2G option (yet alone $1.4bn as restated). These failings collectively make it clear that the integrity of MoF's analysis and negotiations with Aecon cannot be relied upon to demonstrate that a new AT in the best interests of Bermuda.

As MoF is so close to starting construction it will be unwilling to acknowledge its financial errors and inadequacies in due diligence. It will do all that it can in press releases and the justification report to demonstrate that its initial decision to replace Wade without supporting evaluation, was and remains the best option. Given the magnitude of MoF deficiencies thus far, it is recommended that the project be put on hold until the MoF justification report is delivered in accordance with the Entrustment Letter and subsequently reviewed.

The justification report must demonstrate unequivocally that building a new AT is in the best interests of Bemuda. Because no one other than Deloitte is in an position to validate GoB's justification report, the report must be audited by Deloitte before the contract is signed. This will enable stakeholders to properly assess whether its contents completely and accurately address the many deficiencies previously identified by Deloitte and whether AT is justified.

In the event the GoB report does not provide justification and it becomes appropriate to terminate the CCC/Aecon contract, it must be recognised that penalties (say $25m) are immaterial and irrelevant to a decision to terminate. Bermuda must pursue the best approach and must not spend $1.4bn for a new airport unless it is (i) fully justified and (ii) affordable to BoG.

With $2.4bn of Debt (currently three times the sustainable target level) and continued expenditures well in excess of revenues, many years of disciplined spending restraint will be required to eliminate GoB Deficit and reduce Debt to sustainable levels. This will be very difficult to achieve. Default would create a substantial outflow of International Business to safer jurisdictions, precipitating substantial declines in GDP and employment. Economic recovery may not be achievable over the near term, if at all. Given Bermuda's proximity to bankruptcy, it is not prudent to exacerbate Bermuda's fiscal crisis further by undertaking an unessential and unjustified $1.4bn project at this time. Under no circumstances should Bermuda initiate any project that will exacerbate the risks of Default.

DAO REVENUE (EXPENSE) TRANSFER ($000S)

	Original 2015/16	Revised 2015/16	2016/17	TSFD	RET. BG
PAX	400,000	385,000	385,000		
$ Rate	50	50	50		
Revenue at $50 tax	20,000	19,250	19,250		
$16 Improvement Fee (per AERE)	0	2,811	6,160		
Total Passenger Revenue	20,000	22,061	25,410	-25,410	0
Revenue from Airport Ops (see below)	10,818	10,458	11,855	-11,855	
TOTAL REVS	30,818	32,519	37,265	-37,265	0
EXPENSES					
TERMINAL OPS	-2,892	-2,884	-3,942	3,942	0
Air Ops.	-9,053	-9,417	-9,754		-9,754
Maintenance	-3,312	-3,146	-2,184	2,184	0
Fin/Admin	-4,074	-3,974	-4,079	4,079	0
Electricity, Quango ($outstanding)					
TOTAL EXPENSES	-19,331	-19,421	-19,959	10,205	-9,754
NET REVENUE / EXPENSE	11,487	13,098	17,306	-27,060	-9,754

Note: Transferred all but Air Ops

Revenue from Airport Ops	Revised 2015/16	2016/17
Total Rev from Airport Ops (per AERE)	13,269	18,015
Reclassify Airport Improvement Fee to Pass. Rev	-2,811	-6,160
Airport Op Revs excluding PAX Improvement fee	**10,458**	**11,855**