STATEMENT OF PHASE 1 FINDINGS

CHINA AVIATION OIL (SINGAPORE) CORPORATION LTD

STATEMENT OF PHASE 1 FINDINGS

Our Appointment

1. We, PricewaterhouseCoopers, were appointed on 30 November 2004 by China Aviation Oil (Singapore) Corporation Ltd ("the Company") at the direction of Singapore Exchange Ltd as Special Auditors under Rule 704(12) of the Listing Rules to investigate the affairs of the Company relating to the oil trading losses that it suffered and to report our findings to the Singapore Exchange Ltd.

Appointment of Counsel

2. On 6 December 2004, at our request, the Company appointed Messrs Tan Kok Quan Partnership as our Singapore Law Counsel and Messrs Jones Day as our International Counsel, to assist in the investigation.

Our Terms of Reference

- 3. Our terms of reference are to:
 - a. investigate the circumstances which gave rise to the substantial losses that were incurred in oil trading, including options and other derivatives, that were carried out or entered into by the Company;
 - b. review the internal controls, risk management and governance policies that were in place in the Company for oil trading, including the trading of options and other derivatives, and the governance policies of the Company generally; and
 - c. ascertain whether the substantial losses arising from the oil trading, including the trading of options and other derivatives, were properly accounted for in the correct accounting period and in accordance with the Statement of Accounting Standards ("SAS") or Financial Reporting Standards ("FRS"), as the case may be. ¹
- 4. In this statement, we express our views on:
 - a. the accounting and financial aspects of the derivatives trading which the Company² carried out;

¹ SAS was the accounting framework in place prior to 1 January 2003, whereupon FRS came into effect. Insofar as matters discussed in this statement are concerned, there was no material difference between the relevant provisions of the SAS and FRS.

² Here and elsewhere in this statement, we have referred to actions taken or views held by the Company. When drafts of documents were furnished to the Company for its review and comments, one of the comments made was that the Company did not in fact form such views or take such actions. The Company maintained this on the basis that at the material time there was no Board approval or awareness of such views or actions. We have not in this statement examined the extent to which the Board had knowledge of the circumstances at the material time. However, for the avoidance of doubt,

- b. the trading strategies that the Company employed on its derivatives trades;
- c. the mechanics and consequences of each of the Company's restructurings of its options portfolio in 2004;
- d. the losses that the Company suffered on its derivatives trading;
- e. the accuracy of the financial reporting of the Company; and
- f. the risk management environment that was in place in the Company for derivatives trading.
- 5. It should not be presumed that our investigations are closed on any issues that may relate to or arise from matters discussed in this statement or on any other issue within our terms of reference not specifically identified in this statement.

Background

- 6. The Company was incorporated on 26 May 1993 as a joint venture between China Aviation Oil Supply Corporation ("CAOSC"), the China Foreign Trade Transport Corporation and Neptune Orient Lines Ltd. It became a whollyowned subsidiary of CAOSC after CAOSC acquired the shareholdings of the other shareholders on 14 February 1995.
- 7. The Company applied to be listed on the SGX Mainboard in 2001 and was listed on 6 December 2001. Upon listing, CAOSC held 75% of the shares in the Company. On 23 April 2003, CAOSC completed the transfer of its shares in the Company to China Aviation Oil Holding Company ("CAOHC"). On 20 October 2004, CAOHC reduced its shareholding to 60% pursuant to a private placement exercise.
- 8. In the Prospectus that was issued at the time of the Company's listing, the Company classified its business in the procurement and trading of petroleum products into 5 categories, namely, clean petroleum products, black petroleum products, crude oil, petrochemical products and oil derivative products. The Company's core business at the time of its listing was the procurement and sale of jet fuel to airport fuel supply companies in the People's Republic of China ("PRC") through CAOSC. However, this statement focuses on the Company's oil derivative business as the Company's financial predicament towards the end of 2004 was primarily a result of the losses that arose from its oil derivatives trading business.

where we refer to actions or views of the Company we are referring only to the actions or views that were taken or formed on behalf of the Company by those managing and / or conducting the affairs of the Company at the relevant time.

- 9. The derivatives that the Company was trading in as disclosed in the Prospectus were swaps and futures. These derivatives were used either as hedging instruments to hedge the Company's risk inherent in its primary business of physical oil procurement and trading or as speculative trades where the Company sought to gain from favourable market movements.
- 10. The Company only formulated a risk management manual in 2002 with the assistance of the external auditors. The Risk Management Manual of the Company ("RMM") did not have specific provisions on options trading.

The Commencement of Trading in Options - The Back-to-Back Transactions

- 11. The Company commenced options trading in 2002. The first trades, which were executed as early as 20 March 2002, were back-to-back trades with airline companies. The exact reason for these trades is not clear although we have been given to understand that the trades were executed by the Company because the credit standings of the airline companies in question were not acceptable to the counterparties. In the circumstances, the trades were put through the Company which then assumed the credit risk of the airline companies. The external counterparties in turn looked to the Company for satisfaction of any losses that the trades might incur.
- 12. These trades essentially involved back-to-back transactions in that option contracts were sold by the airline companies to the Company and the Company in turn sold option contracts on largely similar terms to external counterparties. Premiums were earned by the Company from the sale of the options and booked as income. In trades involving options, premiums are normally paid by the buyer to the seller. In the case of the said transactions, no premiums were paid by the Company to the airline companies and no liability for the same was recognised in the Company's books.³

³ We have been provided with a copy of an agreement between the Company and one of the airline companies which the Company informed us was representative of the agreements with the other airline companies. This agreement provides that the Company does not have to pay premiums to the airline company for the option that it purchased.

⁴ The external auditors commented that a) these back-to-back options were with a state-owned airline that was a sister company of the Company; b) it was determined by CAOHC and the state owned airline that these transactions would be entered into by the Company; c) accordingly, there were significant elements of a related party relationship in these transactions; d) in view of the relationship between the sister company of CAOHC and CAO, these transactions were in substance agency transactions with the spread arising from the same recognised as commission income; and e) as these transactions were in substance agency transactions, the value of the same did not require disclosure in the Company's 2002 and 2003 financial statements. The external auditors accepted these representations. However, we have not seen any documentary evidence to support these assertions nor have we been provided access to the external auditors' working papers. These assertions and indeed the back-to-back options were not mentioned in the Audit Committee Report for 2002. Notwithstanding this, on the assumption that these assertions are factually accurate, we are unable to agree with the external auditors that the transactions can be regarded as agency transactions for purposes of accounting treatment. We are also unable to agree therefore that they need not have been disclosed in the Company's 2002 and 2003 financial statements.

- 13. It was not apparent whether issues such as the credit risk of the airline companies or the proper valuation and accounting methodology for options were considered by the various organs of the Company, including the Board of Directors ("Board"), the Audit Committee, the Internal Audit Division, the Risk Management Committee ("RMC") and the finance department or by the external auditors. The RMM was approved by the Board in March 2002 but it did not address options trading. These issues were similarly not identified in the Audit Committee Report⁵ for 2002. Furthermore, the Financial Statements for 2002 contained inaccurate information in respect of the financial reporting on these trades and did not adhere to the requirements of the SAS.
- 14. The Company executed several such trades in 2002. More back-to-back transactions involving airline companies were undertaken in 2003 and 2004.
- 15. We understand that the execution of these trades demonstrated to those managing the Company the potential for profits that trading in options on its own account had and that this was among the reasons for the Company later commencing speculative trading in options.

Speculative Options Trading

1Q 2003 to 3Q 2003

- 16. The Company commenced *speculative* options trading on its own account in late March 2003. The first such trade that we have noted was on 28 March 2003. Speculative trading in options was restricted to Mr Gerard Rigby (Deputy Head of Trading Division I) and Mr Abdallah Kharma (Head of Trading Division II)⁶. Mr Rigby did most of the trading as he was regarded as the more experienced in options trading. According to the Audit Committee Report for 2003, the external auditors were informed by Mr Peter Lim Tiong Sun (the Head of Finance) and Ms Elena Ng Lee Sien (the Risk Controller) that the Company commenced speculative trading in options in 3Q 2003. Based on the trades that we have analysed, this is not accurate.
- 17. In March 2003, there were a number of important changes to the Board, Audit Committee and RMC. We understand that in 2002, in accordance with state regulations concerning the separation of enterprises from the PRC authorities, CAOHC had been formed and the ownership of the Company was transferred from CAOSC to CAOHC with the transfer completing in April 2003. Some directors on the Board who were representatives of CAOSC retired and 4 new directors who were representatives of CAOHC were appointed. The appointees were Mr Li Yongji, the Head of the Assets and Financial Management Division of CAOHC, Ms Gu Yanfei, the Head of the Enterprise Planning and Development Division of CAOHC, Mr Chen Kaibin, Technical Supervisor and Director of the Safety & Technology Division of CAOHC, and

⁵ The "Audit Committee Report" refers to the report done by the external auditors of the Company following the completion of their audit in a particular year and presented to the Audit Committee following the year end.

⁶ Mr Kharma is described as the Head of Trading Division II in the Annual Report for 2003 but the Company informed us that he was in fact the Deputy Head of this Division.

Mr Zhang Lianxi, Deputy Director of the Procurement Division of CAOHC. In addition, the Audit Committee saw changes with Mr Li being appointed and Ms Zhang Junru and Dr Yan Xuetong stepping down as members. There was also change in the chairmanship of the RMC with Mr Tan Chin Boon leaving the Company in April 2003 and Ms Cindy Chong Yoke Lin assuming the position. Ms Chong was previously the Company's Head of Operations.

- 18. We understand that the Company took the view in relation to its options trading strategy, at least until the last quarter of 2003, that the market price for oil would trend upwards. This assumption formed the basis for its trading strategy for all speculative option trades executed by the Company until 3Q 2003. The assumption proved largely accurate and yielded a profit.
- 19. For its trades in options, the Company essentially purchased calls and sold puts. As oil prices rose, the calls that were purchased were exercised and profits were accordingly registered in the profit and loss account. On the other hand, the puts that were sold were not exercised. Hence, the Company had no exposure on the sold puts but profited from the premiums that had been collected in selling these options.

The Use of Incorrect Marked-to-Market ("MTM") Valuation Methodology

- 20. Despite commencing options trading in 2002 and speculative options trading in 1Q 2003, the Company did not write specific risk management procedures for options trading. Perhaps more materially, the valuation methodology that the Company adopted for assessing the MTM values of options was incorrect and did not reflect industry standards. The Company regarded the MTM value of an option as the difference between the strike price and the forward price of the underlying commodity. This is the intrinsic value of the option. This method of valuation is inappropriate because the value of the option comprises not only its intrinsic value but also its time value. The time value of the option would have considered factors such as the length of time to maturity of the option, the volatility in the spot price of the underlying commodity, interest rates and other factors. The higher the risk inherent in the option, the higher the premium the seller of the option would demand from the buyer.
- 21. We recognise that even taking into account the time value of options, the actual valuation that is arrived at may fall within a range. The reason is that there are different mathematical models that may be used to value options, each with its own set of assumptions. All these models incorporate time value in their formula. Also, the data that is used when these models are applied may differ, for example, the implied volatility data (especially where the underlying product is not exchange-traded). Notwithstanding this, the value thus arrived at would be more appropriate than the intrinsic value method adopted by the Company. Consequently, if the time value had been taken into account, the financial statements would have been more accurately reported and enabled an investor to make a more informed decision.⁷ For these

⁷ A more detailed discussion of our approach to valuing options may be found at paragraphs 50 to 60 herein.

reasons, we do not consider that the Company's figures could be accepted on any reasonable basis since there was error in the approach that was taken to the valuations.

- 22. The MTM value of an option approximates to its premium replacement cost, that is, the quantum of premium required to close out the option at that time. A seller of an option assumes the risk of the option being exercised at maturity. As the seller of the option does not know at the point of sale whether the option would be exercised, it would be important for the seller to monitor the MTM value regularly so as to assess the likelihood of the buyer exercising the option. A declining MTM value would mean an increase in exposure to the seller. In such a situation, the seller can decide whether to hedge the exposure or close out the position before maturity. Thus, accurate MTM valuation is critical for good risk management and control, and for accurate representation of the option's value in the financial statements. In the case of a listed company such as the Company, this issue assumes much greater significance particularly from the perspective of corporate governance and financial disclosure.
- 23. The Company did not carry out accurate MTM valuations of its options portfolio. The Company's fundamental error in not recognising the time value of the options led to several consequential errors in its accounting recognition of the MTM values of the options and the accuracy of the disclosure in the Financial Statements, quarterly and half-year announcements.

These errors and their impact were magnified as a result of the restructurings in 2004. These are highlighted below.

- 24. The use of the incorrect MTM valuation methodology continued through 2004. We find the Company's adherence in 2004 to this incorrect MTM valuation methodology difficult to comprehend as its own MTM valuation of its various options contracts differed significantly from the valuation of these same contracts by the counterparties. Such counterparties sent MTM statements of the Company's outstanding options positions with them, and these were sent to the Company either on request or in support of margin calls that were made. We have not sighted any documentary evidence to suggest that the Company took issue with these statements. In fact, the Company met the margin calls without protest until it lost the financial capacity to do so at the end of September 2004.
- 25. The Company had acquired a trading software called Kiodex in 2003 that had the capability of valuing options. The Company informed us that the system was unreliable for this purpose⁸. We have run this system for a sample set of

⁸ In fact during the course of the interviews with some of the executives responsible for monitoring the MTM value of the options trading portfolio we were told that at the material time they were unaware that Kiodex could be used at all for the valuation of options and that this was only discovered in October 2004. We were also told that there had been reservations with Kiodex because it was more suited to the more standard variety of transactions and that the more exotic nature of the Company's options trades rendered the Kiodex system unsuitable. While it is true that the basic features of Kiodex worked most easily with the more standard transactions, we found it was possible to develop solutions

options (excluding extendibles⁹) actually traded by the Company and have found that the MTM values that were generated were within 5% of the MTM values that we had independently calculated. We therefore do not share the Company's view that Kiodex was unreliable for this purpose and we are unable to understand why the system was not used for this purpose.

- 26. The commencement of speculative options trading was reflected in the Audit Committee Report for 2003 though the commencement date was inaccurately stated as 3Q 2003 when the correct date should have been 28 March 2003. However, the Audit Committee Report did not state that the valuation and accounting treatment of the Company was inappropriate¹⁰; or mention the fact that the approval procedures stipulated in the RMM for the trading of new products had not been followed in the case of options; or state that the RMM did not have risk management procedures for options trading¹¹.
- 27. The Audit Committee Report for 2003 also noted that the Company was still developing standard operating procedures for options trading. No options trading risk limits were stipulated in the RMM. However, we noted attempts by Ms Chong on 31 December 2003 and 2 January 2004 to introduce trading limits for options trading. However, by the time the decision to restructure the portfolio in January 2004 was made, the MTM value of the options portfolio was significantly in the negative and had already exceeded the said trading limits. Further, we understand that the Company did not engage in new options trades after the January 2004 restructuring save for the trades that were executed as part of the various restructurings in 2004.
- 28. The Company has commented that the "stop-loss" limits in the RMM should also have been observed for the speculative options trading, notwithstanding that no specific limits were set for the same. The Company has further commented that if this had been done, the losses could have been avoided. We accept that despite there not being specific operating procedures for options incorporated in the RMM, management and the traders ought to have borne in mind that these limits represented the risk and loss appetite the Company had for trading. However, the fact is that these limits were not observed. Further, the Company's contentions do not pay sufficient regard to the fact that having adequate risk management rules and tools requires not just that these are in place but that they are also adequately implemented and policed.

within Kiodex to enable the system to work with the more unusual or exotic options. See further discussion on this in paragraphs 50 to 60.

⁹ Contracts with extendibles are contracts in which one party to the contract has the option to extend the contract on the same or modified terms. If the underlying contract is an option, it is known as an extendible option or a compound option.

¹⁰ Indeed, the Audit Committee Report for 2003 noted that these speculative trades had been appropriately accounted for by management, which was not correct.

The Audit Committee Report for 2003 noted that the Company was still developing standard operating procedures for options trading and that such trading was done on a limited basis.

4Q 2003 to 1Q 2004 - The January Restructuring

- 29. The Company took a bearish view of the trend in oil prices in 4Q 2003. The options trading strategy was therefore fundamentally changed. The Company sold calls and bought puts with the result that it was in a short position at the end of 4Q 2003. Some of these trades were compound options, that is options with extendible features. The intention behind including such features was to increase the premium or improve the strike price. As the assumption was that oil prices would fall, it was further assumed that the counterparties would not extend the options and these would therefore lapse to the benefit of the Company.
- 30. The trading strategy for options started to unravel when oil prices did not correct downwards from 4Q 2003. The options that were entered into pursuant to this trading strategy thus had a negative MTM value¹² of \$1.2¹³ million (S\$2.1 million) in 4Q 2003. We should point out that the Audit Committee Report for 2003 incorrectly reflected the negative MTM value as S\$138,000, which was calculated based on the intrinsic value method. In addition, there was a recognition of S\$1.3 million as unamortised portion of the premium received from options sold. Therefore, the error in the profit before tax ("PBT") for 2003 arising from the incorrect MTM valuation was an overstatement of S\$0.6 million.¹⁴
- 31. The rise in oil prices resulted in the counterparties exercising the extendibles on options that were sold in 3Q 2003 with this feature. Thus, with the calls that were sold, the Company faced the real risk of having to sell the contracted number of barrels ("bbls") at the strike price. As the spot price had moved above the strike price, the Company would have had a net exposure on these options at maturity. A number of the options that were executed in 4Q 2003 were maturing in 1Q 2004 and with the prevailing oil prices at this time, the Company faced the real possibility of realising substantial losses in 1Q 2004.
- 32. Against this background, it would seem that the Company's decision to restructure the options was influenced by the wish not to crystallise or record losses on those options that were maturing in 1Q 2004. The restructuring involved the simultaneous selling and buying of options. The effect of the restructuring was that the Company closed most of the short dated options by buying them back and then sold longer dated calls and puts with higher strike prices and volumes. The maturity dates on these (sold) contracts stretched from 2Q 2004 to 1Q 2005 and extendibles stretched further to 4Q 2005. There were thus 2 elements to the restructuring. The first element involved the buying of options in order to close out the existing options that were maturing

14 Negative MTM value per our calculation S\$2.1
Negative MTM value by the Company:
- using the intrinsic method S\$0.1

- unamortised portion of premium S\$1.3 (S\$1.4)
Rounding Difference (S\$0.1)
Overstatement of PBT S\$0.6

 $^{^{12}}$ Wherever this statement refers to or relates to valuation of options, reference should be had to paragraphs 21 and 50 to 60 herein.

¹³ United States Dollars unless otherwise stated.

in 1Q 2004¹⁵. The premiums that were to be paid for these options corresponded largely to the negative MTM value on the said existing options. The second element involved the sale of options to generate sufficient premium to settle both the premiums that the Company was required to pay under the first element as well as the transaction cost of the restructuring. Without the second element, the Company thought that it would have had to record a loss on the options that were being closed out, the loss being the premiums that were payable for the options that were bought under the first element¹⁶. Thus, the quantum of premiums that needed to be generated was entirely dictated by the premiums and transaction cost that had to be paid. To raise sufficiently high premiums, the Company had to assume higher exposure to losses. In effect, the Company sold a higher volume of options with longer tenure.

33. Given these effects of the restructuring, namely that the Company in fact took on higher risk as a result, it would appear that the Company's stated objective of managing its risk was not in fact achieved. This was perhaps influenced by the Company taking the approach (in our view mistakenly) that, as a consequence of the restructuring, it would not have to record losses on the options that were maturing in 1Q 2004. The January 2004 restructuring from the Company's perspective was underpinned by its view that oil prices would correct in 2004. No assistance from independent third parties was sought by the Company to evaluate the commercial sense of the restructuring.

2Q 2004 - The June Restructuring

- 34. The restructuring in June 2004 was flawed for essentially the same reasons as was the case with the January 2004 restructuring.
- 35. There were however, 2 further critical aspects that should be noted. First, the risks that the Company assumed were far greater than had been the case with the January 2004 restructuring. This was primarily a function of the much larger negative MTM value that the Company was facing on its options portfolio by June 2004 as compared to the situation prior to the January 2004 restructuring. A significant portion of the Company's options portfolio was restructured in June 2004. Consequently, the premiums that had to be generated in order to enable the Company to settle the premiums that were in turn required to buy options to close out the pre-existing negative options positions were much higher. The transaction cost for the restructuring that was payable to the counterparty was also higher. Most of the options that were the subject of this restructuring were maturing in 2H 2004 or 2005.
- 36. Secondly, unlike the January 2004 restructuring, in executing the restructuring, it would have been extremely difficult for the Company to manage the negative MTM value of the options portfolio. Any material

¹⁵ Some of the extendibles closed out did have maturities extending beyond 1Q 2004.

¹⁶ For the avoidance of doubt, we consider that the Company would have had to record a loss on these options regardless of whether or not it was at the same time selling options and generating premiums to cover these losses. Moreover, if the sold options gave rise to further unrealized losses, these also should have been recorded.

movement in oil prices would have resulted in a deterioration of the MTM value of the restructured positions. This position should have been appreciated by the Company if the information on the restructuring that was provided by the counterparty had been properly analysed and digested, as the Company was aware of its total options positions.

- 37. The Company was aware or should have been aware of the prospect of margin calls being made after the June 2004 restructuring and should have appreciated that this was a very real possibility for 3 reasons. First, any reasonably informed participant in the business of options trading ought to have known that the negative MTM value post the June 2004 restructuring would be greater than the negative MTM value pre-restructuring. Secondly, even if oil prices ultimately were to trend downwards (as assumed by the Company), given the long tenure of the options, material interim fluctuations in oil prices (against the underlying assumption) would have resulted in margin calls against the Company. Thirdly, in May 2004, the Company had already begun to meet margin calls arising from the January 2004 restructuring. Given the volume and tenure of the options that were being written under the June 2004 restructuring, the Company should have also appreciated that more such margin calls would be made and were likely to be significant. It is unclear whether at the time of the restructurings or anytime thereafter, the Company gave any, and if so, what consideration to how it would manage margin calls if they were to be made.
- 38. In fact, oil prices continued their upward trend even after the June 2004 restructuring. As a result, the Company faced substantial margin calls on options that were written under the June 2004 restructuring. These margin calls were made from July 2004 and continued right through to November 2004. The Company attempted to support them up to September 2004 but lost the financial capacity to do so by the end of September 2004.
- 39. In September, the Company restructured the options that were close to maturing. The September 2004 restructuring took place against the backdrop of the Company's worsening cash position resulting from the margin calls referred to above.

3Q 2004 - The September Restructurings

- 40. The restructuring in September 2004 was different from the January and June 2004 restructurings in some respects. This time, the restructuring exercise was not carried out with a single counterparty. 5 counterparties were involved and the restructurings took place over a period of time from 31 August to 27 September 2004.
- 41. However the fundamental object of the exercise remained the same, namely, to close out near-dated call options and replace them with longer-dated call options for a much higher volume.
- 42. The restructuring was done at zero net cash flow at the point of restructuring. This followed from the fact that in common with the previous exercise, the

Company wished to avoid recording losses for 3Q 2004. The difficulty that the Company faced by this stage was that it was facing huge negative MTM values on its options portfolio and it would have been apparent that any movement of oil prices upwards would have resulted in huge margin calls being made by the counterparties. By then, the Company had exhausted nearly all of its financial resources, in order to meet margin calls. By this stage there was simply no escaping the fact that there would be a need to meet margin calls under any restructurings if oil prices moved upwards. This was all the more so since margins had been regularly called for in large sums and paid, particularly after the June 2004 restructuring.

43. The margin calls that the Company faced and satisfied spanned a period of 7 months (May to November 2004). These calls increased in magnitude after the June 2004 restructuring. The Company satisfied the calls through standby letters of credit ("SBLCs") prior to the June 2004 restructuring and cash payments and SBLCs (principally the former) thereafter.

Reporting to CAOHC

- 44. The size of the margin calls continued to escalate with the uptrend in oil prices. The spike in oil prices in early October 2004 and the consequent increased volatility meant that the Company did not have sufficient cash to meet margin calls. By then, the Company had also utilised most of its available banking facilities. There were therefore insufficient resources to meet margin calls. We have calculated the MTM losses as at 8 October 2004 to be approximately \$367 million.¹⁷
- 45. Given the Company's situation, on or about 8 October 2004, the Company formally informed CAOHC of its losses. By a document dated 9 October 2004, the Company further informed CAOHC, *inter alia*, that the losses were unrealised and amounted to \$180 million, and the Company required financial support of \$130 million which could rise to \$200 million (if oil prices hit \$55/bbl) and \$400 million (if oil prices hit \$61/bbl). The Company also told CAOHC, *inter alia*, that if all the positions had been closed on 7 October 2004, the realised losses would be \$500 million and if closed out on 8 October 2004, \$550 million.

The Inaccuracy of the Company's Financial Statements and Financial Announcements 18

Back-to-Back Options

- 46. The following inaccuracies were noted:-
 - These options had not been recorded on the balance sheet from the time the Company started this activity in 2002 until the present.

¹⁷ See paragraphs 21 and 50 to 60 herein.

¹⁸ In reading this section on the Inaccuracy of the Company's Financial Statements and Financial Announcements, please see footnote 12.

PRIVATE AND CONFIDENTIAL

- Consequently, for the years ended 31 December 2002 and 31 December 2003, the receivables and payables arising from the movement in the MTM value of these options from the date of acquisition to the balance sheet date were not recorded.
- The contractual or underlying principal amount of these options and their corresponding gross positive and negative balance sheet fair values were not disclosed in the Financial Statements for 2002 and 2003. 19

Speculative Options

47. The Company's adoption of an incorrect valuation methodology for options from the time it commenced trading on 28 March 2003 resulted in inaccuracies in the reported financial results of the Company for 2003. Similar errors were noted in 2004.

2003

- 48. The following inaccuracies were noted:-
 - The Financial Statements understated the negative balance sheet fair value of the speculative options portfolio as at 31 December 2003 by S\$0.6 million. The figure stated was S\$1.4 million. The corresponding PBT for 2003 was therefore overstated by S\$0.6 million. The Company arrived at the negative balance sheet fair value ie. S\$1.4 million by adding the unamortised portion of the premium received of S\$1.3 million and the unrealised loss of S\$138,000 (valued on the inappropriate intrinsic value methodology). 20 21 22

¹⁹ See footnote 4

²⁰ See footnote 14

²¹ The external auditors have informed us that a) they had concluded that amortisation of the option premium over the life of the option would provide a reasonable surrogate for the time value, on the understanding that the options that were included in 2003 were short-dated options; b) they had concluded that the approach of amortising the premium was a reasonable substitute for time value given the nature of the options and that any difference that would result as a consequence of adopting this approach would not be material; and c) they had informed Mr Lim that for the calculation of MTM values of options in the future, the Company needed to put in place a system that would MTM the options appropriately (i.e. include time value in the pricing model).

The external auditors have also informed us that the Audit Committee was subsequently informed that the Company's MTM calculation had to be and had been adjusted and that after adjustment, they believed that no further adjustments to the 2003 financial statements were required. However, we have not sighted any documentary evidence that shows that the Audit Committee was informed that the Company had adopted an incorrect approach, and that the Company's MTM valuation had been adjusted. The Audit Committee report for 2003 that was presented at the Audit Committee meeting on 18 February 2004 and the minutes of the said meeting do not record this observation or the various discussions that are asserted to have taken place between the external auditors and Mr Lim.

- The accounting policy note on derivative financial instruments was not accurate to the extent that it suggested that the options were appropriately MTM.
- The options were accounted for incorrectly from the inception of trading resulting in incorrect reporting of financial results in each of the quarterly results in 2003 as tabulated below:-

Table 1 Reported and Adjusted PBT in 2003

S\$ million	1Q	2Q	YTD	3Q	YTD	4Q	Full
			June		Sep		Year
			' 03		'03		
Reported PBT	21.7	13.3	35.0	11.5	46.5	20.6	67.1
Adjusted PBT	20.6	15.1	35.7	11.9	47.6	20.3	67.9

- The error in the reported results in 2003 was due to the incorrect negative MTM valuation of the Company's options portfolio (ie. the overstatement in the PBT of S\$0.6 million) compensated by an error in the MTM valuation of swaps and futures (ie. an understatement in the PBT of S\$1.4 million). This resulted in an overall reported PBT of S\$67.1 million as compared to our adjusted PBT of S\$67.9 million (ie. S\$67.1 million less S\$0.6 million plus S\$1.4 million).
- The Company did not disclose the subsequent deterioration of the MTM value of its options in the 31 December 2003 Financial Statements which were dated 28 February 2004. The additional loss suffered by the Company on the options portfolio from 1 January 2004 to 28 February 2004 was significant and was more than a quarter of the PBT for 2003. Details of the deterioration may be found in the table below.²³

²³ The external auditors have commented that based on their work on post balance sheet events, they were not aware of any post balance sheet events that required disclosure in the Company's 2003 Financial Statements. We are unable to say exactly what post balance sheet work the external auditors carried out as we have not had access to their working papers. The external auditors have asserted that a) they were informed that there were no interim management accounts between 1 January 2004 and 28 February 2004; b) they made inquiries of Mr Lim on post balance sheet events that required disclosure and were present when Ms Chong and the Internal Auditor, Mr Chang, made presentations to the Audit Committee on 18 February 2004. In both situations, post balance sheet events were not disclosed; c) they were provided with a letter dated 28 February 2004 from Mr Chen that stated that no major subsequent events had occurred that required disclosure; and d) this position was reiterated by Mr Chen by a further letter dated the same day as the Annual General Meeting which was held in late April 2004.

Table 2 Additional loss on the option portfolio at selected dates subsequent to the year ended 31 December 2003

Date	Additional Loss in S\$ million (\$ million)
31 January 2004	S\$18.8 million (\$11.0 million)
15 February 2004	S\$17.4 million (\$10.2 million)
27 February 2004 ²⁴	S\$19.4 million (\$11.3 million)

Exchange rate of S\$1.71 to \$1

2004

49. As the incorrect accounting treatment of options continued into 2004 and in view of the impact of the restructurings, there were material inaccuracies in the 2004 quarterly announcements as shown in the table below:-

Table 3 Reported and Adjusted PBT in 2004

S\$ million	1Q	2Q	YTD	3Q	YTD
			June		September
			04		04
Reported PBT	19.0	19.3	38.3	11.3	49.6
Adjusted PBT	(6.4)	(58.0)	(64.4)	(314.6)	(379.0)

How we valued the Company's options portfolio

- 50. The correct value of the option is the amount of the premium that must be paid or will be received to close out that option contract. This is called the premium replacement cost. The MTM value that is arrived at using any of the various option valuation models is considered a reasonable approximation of premium replacement cost. Given that there are several variables that go into arriving at this approximation, this not an exact science and involves a certain amount of judgment.
- 51. We used the same system, Kiodex, which the Company informed us was unreliable for the valuation of the options, to value the options portfolio of the Company at various points in time though we had to improvise and develop a solution using Kiodex in the case of extendibles (see paragraphs 55 to 60 below).
- 52. Prior to doing so, however, we first had to procure the implied volatility curve²⁵ for Kero (Jet Fuel Kerosene) from one of the counterparties as Kero is

²⁴ We have selected this date which is as close to 28 February 2004 as possible because 28 February 2004 itself was not a trading day, being a Saturday.

²⁵ Such volatility curves are formulated based on an assessment of current information in respect of the prices of traded options available to the counterparty. In making this assessment, the counterparty makes a judgment as to the implied volatility of the prices of options over a period of time. Moreover as noted elsewhere, various valuation models exist which may give slightly different results when applied even if the same volatility curves are used.

not traded on any exchange and Kero volatility curves are not publicly available. As there is some subjectivity involved in determining the implied volatility, so much so that each counterparty may be using different volatility figures, the resulting MTM values used may differ. According to the terms of the contract between the Company and the counterparties, the latter was the appointed party for the valuation of derivatives (and consequently for the determination of the amount payable in respect of margin calls). Given that there would be a difference in value, depending on the counterparty involved, the MTM value of options that we have derived and set out in this statement should be treated as our valuations arrived at using the methodology described in this statement and using the tools available to the Company.

- 53. We were, however, able to procure the volatility data for the other products more readily.
- 54. The Kiodex system used the Black-Scholes method to value Asian options and the Whaley analytic approximation method for American options. ²⁶ When it comes to options, it is not unusual that different methodologies are used. We performed a sample test of twenty options contracts (excluding extendibles) over 4 quarters using the Kiodex system and checked them independently against our own calculations using a proprietary software that is commercially available for this purpose. In addition, we verified selected contracts where the underlying commodity is WTI (West Texas Intermediate Brent Crude) with the expert recently retained by the Company to advise on the valuation of options. In both instances, the variance was less than 5% which we were of the view was acceptable.

Extendibles

- 55. The Company's Kiodex system was not able to handle the valuation of the more exotic trades that the Company entered into, in particular, the extendibles. Hence, the tools available to the Company were inadequate to accurately value such options trades that the Company was executing.
- 56. However, to provide an understanding of the value of the Company's options portfolio, we improvised and developed a solution using Kiodex. Our objective was to arrive at a valuation using the tools available to the Company.
- 57. The extendibles that the Company entered into were complicated to value in many cases as:-
 - (i) the underlying commodity in the primary option contract differed from that of the extendible option contract; and
 - (ii) the primary option contract was a 3-way collar, while the extendible option was a 2-way collar.

²⁶ Black-Scholes and Whaley analytic approximation methods are common valuation methodologies for options. American options are options that can be exercised at any time during its life. Asian options have payoffs that depend on an average of prices for the underlying asset over a period of time, rather than the price of the asset on a single date, and the averaging period may correspond to the entire life of the option, or may be shorter. They can be exercised only at the expiration date.

- A specific customised computer programme (model) would have had to be written to account for all the complexities and variables that were inherent in the extendibles that the Company had entered into. Further, this programme would have had to be tested and debugged before its accuracy could be accepted. We therefore adopted the approach of assessing whether the tools available to the Company could have been used to arrive at a reasonably accurate valuation of these extendibles.
- 59. We approached the valuation of extendibles by making an assumption on the date of valuation as to whether the primary options contract would be exercised based on whether the option was "in-the-money" or "out-of-themoney" for the holder of the option. In the former, we assumed that the counterparty would exercise and in the latter, the counterparty would not. If the assumption was that the option would be exercised, a negative MTM value based on Kiodex was attributed to the option contract. If the assumption was that the option would not be exercised, a zero value was attributed. This, however, did not take into account the value of the extendible to the counterparty, who would have some time (during which time the commodity price could move in favour of the counterparty) to decide whether to exercise the extendible. This is referred to as "optionality". In choosing this approach, the results would be fairly accurate when it applied to "in-the-money" shorter maturity extendibles and would tend to undervalue extendibles that have a longer maturity period (ie. where the latter are involved, the adjusted profit of the Company thus arrived at by us is higher and the loss lower than it should be). This point must be borne in mind in relation our observations on the inaccuracies in the MTM valuations in this statement as a substantial number of longer maturity extendibles were sold by the Company.
- 60. Based on the above, we believe that our MTM valuation is acceptable subject to the qualification on "optionality" in paragraph 59 above.

The Reporting of the 3Q 2004 Results

61. It seems reasonably clear that the Company, and in particular Mr Peter Lim, the Head of Finance of the Company, appreciated that the negative MTM value of the options portfolio and the losses that resulted from the counterparties closing out positions had to be reported to the Independent Directors by the time of the Audit Committee meeting that was scheduled for 11 November 2004 and in the 3O 2004 results (which the Audit Committee was to consider and approve at that meeting). 2 different sets of 3O 2004 results had been prepared by Mr Lim ahead of the meeting. One set reflected the losses as understood by Mr Lim at that time, and the other did not. Mr Lim's approach to whether the Audit Committee should be informed of the losses appears to have been dictated by whether CAOHC would be taking over all of the Company's options positions pursuant to a formal agreement. In this regard, a draft of the agreement had been prepared by the Company with the assistance of external solicitors which had the intended effect (from the Company's point of view) of CAOHC taking over all of the Company's options positions. By 11 November 2004, Mr Lim had not been provided with

- a duly executed agreement (on the same terms as the draft). At the Audit Committee meeting on that day, Mr Lim produced the set of 3Q 2004 results without the losses but informed the meeting that the results needed further verification. Accordingly, the meeting was adjourned to 12 November 2004.
- 62. On 12 November 2004, a faxed copy of the agreement purportedly executed by Mr Jia on behalf of CAOHC was made available to Mr Lim. Mr Jia has categorically informed us that he did not execute this document and that CAOHC did not authorise anyone to sign the purported agreement.
- 63. On the basis of this fax, Mr Lim informed the Audit Committee that the results that had been produced the previous day were accurate. The existence of the purported agreement was not communicated to the meeting. The meeting approved the results for announcement. We should point out that only the Independent Directors participated in both meetings. Mr Li, the other member of the Audit Committee, did not participate in either meeting.

The Company's Risk Management Environment

- Only swaps and futures were traded on a speculative basis at the time of the Company's listing. However, there was no formal risk management manual in place for derivatives trading until March 2002 when the RMM was approved by the Board. The RMM incorporated guidelines for speculative trading of swaps and futures.
- 65. When options trading started in 2002 and in particular when speculative options trading started in March 2003, the following ought to have been done before trading commenced:-
 - The Board ought to have established appropriate guidelines for such trading and ensured that the same was consistent with the Company's fundamental risk management polices, management capabilities and expertise, and overall risk appetite and tolerance.
 - Management ought to have ensured that effective derivatives risk management policies and procedures were implemented. In particular, issues concerning risk tolerance, the measurement and reporting of risk and the operational controls should have been specifically addressed.
 - The appropriate accounting and valuation treatment for options ought to have been addressed.
- 66. The RMM did not address any of these in relation to options²⁷. This is perhaps not surprising given that it came into force prior to the commencement of options trading. The RMM, however, contains specific provisions regarding the introduction of new products. These provisions essentially require the trading in new products to be approved by the Board on

²⁷ See also paragraph 28 above.

the recommendations of a committee and the Chief Executive Officer ("CEO"). There is no evidence that formal approval was secured from the Board. Also there was no mention of this in the Audit Committee Report for 2003. As the speculative trading in options was mentioned in the Audit Committee Report for 2003, it is fair to assume that the Audit Committee was also aware of the same at least from the time of the Audit Committee meeting on 18 February 2004.

- 67. The Audit Committee Reports for 2002 and 2003 also did not address the issues stated in paragraph 65 herein. The Audit Committee Report for 2003 stated that speculative trading of options had commenced in 3Q 2003. It also stated that the Company was developing standard operating procedures for options trading and that management had accounted for options appropriately. These statements were inaccurate as standard operating procedures were not developed for options trading and management did not appropriately account for options.
- 68. Paragraph 6(ii) of the "Statement of Corporate Governance" in the Annual Report for 2003 suggested that the Company had a risk management control system that helped ensure full compliance with the RMM. The RMM was described as a comprehensive risk management procedural manual. Insofar as this statement suggested that:-
 - the RMM provided specific guidelines for options trading; and
 - the Company did not have difficulties with the risk management software (Kiodex),

it would not have been correct.

- 69. Independent of these issues, the RMM could have been improved in the following areas:-
 - The reporting line of the Chairman of RMC was stated in the RMM as being to the CEO. Even if a reporting line to the CEO was recognised, the RMM should have clearly stipulated that the primary reporting line was to the Audit Committee and the Board.
 - The day-to-day risk management responsibility ought not to have been delegated to the CEO. Rather, this should have been the responsibility of the Chairman of RMC.
 - There was a failure to stipulate that the manager of the oil trading floor should not be allowed to trade unless trading was necessary to protect the Company's overall risk exposure. In this regard, we understand that Mr Chen was an active trader in swaps on a speculative basis from 2003. There was no specific trading floor manager/supervisor stipulated.

70. The fact that the Company commenced options trading in 2002 and more significantly, speculative options trading in 1Q 2003, without putting in place a proper risk management environment for the same or securing express approval from the Board, raises questions on the strength of its corporate governance and the quality of its risk management environment and financial management. This is exacerbated by the failure of the Company to use the appropriate methodology for valuing options and to appropriately recognise and disclose in the Financial Statements the MTM values and the financial effects of the various restructurings in 2004.

Closing Comments

- 71. The information stated in this statement is on the basis of interviews conducted and documents reviewed as at 5 February 2005 and interviewees and other parties have not been invited to comment on observations. comments and assertions that have been made in the interviews in relation to them given that investigations are on-going. However drafts of documents were furnished to the Company. The Company was given the opportunity to let us have its comments and observations on the drafts. The Company's comments and observations were made available to us on various dates. The Company also made a draft available to its external auditors and to its options expert. We have considered the Company's comments and observations, as well as those of its external auditors and its options expert, and where appropriate amended the documents to incorporate the same. In considering these comments and observations, we did review the interviews that had been conducted as well as any new documents that came to our attention after we received the said comments and observations.
- 72. Documents have been accepted at face value unless obviously incomplete or inaccurate. Further, we have not carried out an audit of the financial information of the Company in accordance with Singapore Standards on Auditing. Where appropriate, we have rounded the numbers in this statement to the nearest one decimal place
- 73. This statement's primary focus is the losses that the Company had incurred as a result of speculative options trading. We are of the view that the following factors, individually and collectively, contributed to the losses that the Company suffered as a result of speculative options trading:-
 - A view of the trend of oil prices from 4Q 2003 which in the event proved incorrect
 - What appears to have been a desire not to record losses in 1Q 2004, 1H 2004 and 3Q 2004 that led to the assumption of imprudent and unwarranted risks under the restructurings in 2004 (in particular, the assumption of significant risks under the June and September restructurings).²⁸

²⁸ It may be noted that the Company has commenced action in the Singapore High Court against the counterparty to the January and June restructurings.

- The failure by the Company to value its options portfolio in accordance with industry standards.
- Consequently, the failure by the Company to appropriately recognise the MTM values of its options portfolio and report the same accurately in its Financial Statements and the quarterly and half yearly announcements from 2002 to 2004.
- The absence of proper and stringent, and in some instances basic, risk management procedures and controls specifically for speculative options trading.
- To the extent that there were risk management procedures and controls that could have applied (at least in spirit) to the options trades²⁹, management's readiness to override these.
- 74. The Company's speculative derivatives trading experience before it ventured into speculative options trading was limited to swaps and futures. The Company entered into options trading perhaps without fully appreciating the risks associated with the instrument.
- 75. Once the Company was facing potential and imminent losses on its options portfolio in January 2004, the significant risks that it assumed in the restructurings that followed proved to be its undoing as it eventually lost its financial capacity to meet margin calls in a rising market. The incorrect accounting and financial treatment, valuation methodology and consequent errors in financial disclosure by the Company of its options portfolio compounded the situation. When faced with a negative MTM value on its options portfolio in January 2004, the Company ought to have closed out its positions. The strategy for any new trades to be written should not have been influenced by the weight of the losses on the previous options and what appears to have been a desire to avoid recording the same. The Company's strategy in fact resulted in a manifold increase in risk with each restructuring. This risk manifested itself in the exponential increase in the negative MTM value of the options portfolio which the Company faced with each upward movement in oil prices. The Company eventually found itself in a position where it was unable to cope with the mounting margin calls. This culminated in losses of \$550 million as at 29 November 2004 which in turn led to the suspension in the trading of the Company's shares, its application to Court for an order to convene a meeting of creditors to approve a Scheme of Arrangement under Section 210 of the Singapore Companies Act and the present investigation. The increasing risk that the Company took on with each of the restructurings ultimately led to its current financial predicament.

²⁹ See paragraph 28 above.