

May 2007

Flyqual Airlines - unseen material provided on examination day

Read this information before you answer the question

Industrial Relations at FQA

Much to the relief of all stakeholders in the airline, and in particular its shareholders, the threatened industrial relations unrest has not materialised. Although there is now a better understanding between the trade unions and management at the airline, the relations could not be considered to be friendly. However, both sides seem to have recognised that it is in their own best interests to try to avoid confrontation. Accordingly, the Aviation Minister has lavished praise on the Chairman and Chief Executive of FQA and also on the trade union leaders and publicly congratulated them as shining examples of industrial co-operation.

Catering Dispute

The previous difficulties experienced with the main catering supplier CG have now been resolved with a new contract agreed. CG is proving that it can supply catering of an appropriate quality and is comfortable with the price it has recently negotiated with FQA.

Corporate Entertainment

A leading national newspaper has revealed that some directors on the FQA Board have engaged in activities which included providing lavish corporate entertainment and offering substantial price discounts to potential corporate customers. This includes employees of government departments both in FQA's home country and abroad. As yet, there has been no direct link made to any government ministers by the national newspaper but now other media channels have taken the story and are progressing with their own investigations. This has led to speculation that senior government ministers may have benefited by receiving FQA's corporate entertainment.

There is speculation among senior FQA staff that this issue might also be high on the agenda at a meeting between the Chairman of FQA and the Aviation Minister which will be held soon. In response to the allegations, the Chairman of FQA has challenged the national newspaper to provide proof. The national newspaper has reported that FQA's external auditors use the airline for most of their domestic and overseas flights and has asked whether the auditors receive discounts or benefits from the airline which are not available to other passengers.

Capital Investment Appraisal and Leasing Evaluation

The Finance Director has been provided with a Capital Investment Appraisal calculation for each aircraft and from this the C 491 had been demonstrated as more financially attractive than the F 898. The NPV for the two aircraft were calculated as follows:

C 491:	\$97 million per aircraft
F 898:	\$26 million per aircraft

(These NPV values are calculated from the data contained in the pre-seen material.)

Based on this information and other non financial factors, the Board took the decision to acquire the C 491 rather than the F 898 or replace the ageing aircraft with new ones of the same type.

The Board is aware that the delivery of newly designed aircraft is often subject to delay.

Its initial order will be for 20 aircraft to be brought into service, one per month from 1 January 2008. The intention is that as each new aircraft is brought into service, one F 858 or C450 will be retired. In August 2009, when the 20th C 491 is received, FQA will dispose of four F 858s. The effect on overall passenger capacity from the acquisition of the 20 C 491s and the disposal of the 24 aircraft in the current fleet is a net increase of 200 seats.

The Board is confident that the increase in overall capacity and the faster turnaround will enable FQA to take advantage of possible increased demand in passenger numbers. The Chairman stated at a news conference called to announce the decision to acquire the C 491s, that

"FQA has a proud tradition of offering high quality travel solutions to business and tourist customers alike. We believe that the C 491 will provide the high standards required to take advantage of increasing customer expectations for worldwide travel and we look forward to a long and successful relationship with C."

FQA's Finance Director is confident that FQA will, if required, be able to raise sufficient funds to purchase all the new aircraft outright. In addition, however, she has received the information shown at **Appendix B** (Appendix A is shown in the pre-seen material) which relates to leasing rather than buying the C 491. The cash commitment to FQA of the annual leasing charges over the next three years will be as follows:

	\$m
Financial Year ending 30 September 2008	405
Financial Year ending 30 September 2009	900
Financial Year ending 30 September 2010	900

Following negotiations with an alternative leading leasing contract company (whose Managing Director is the brother of FQA's Chairman) it became clear that a more advantageous leasing agreement was available to FQA. Under the terms of the proposed agreement, the leasing charge would be \$35 million per year for each C 491 aircraft over a ten-year period, rather than the \$45 million per year (as stated in the pre-seen material) over 10 years. The other terms and conditions for each of the two alternative leasing agreements are identical.

Change in safety recommendations

The government has introduced a new safety recommendation for aircraft which will come into operation from 1 January 2008. This is in response to a freak accident which occurred elsewhere in Asia (not involving FQA). The recommendation relates to door mechanisms and applies to all new aircraft but not for those currently in service. The cost of the new recommendation is expected to be \$1 million for each C 491 aircraft. The Chairman of FQA has written to the Aviation Minister expressing his concern at the new recommendation as the changes required are by no means certain to improve the ability of passengers to leave the aircraft quickly in the event of an emergency. Further, the changes required by the recommendation would not be effective across the world and therefore will only apply to airlines registered as companies within FQA's home country. This means that only airlines such as FQA will need to comply with the recommendation and those from other countries will not be required to do so which the Chairman of FQA considers would put his company at a severe disadvantage.

The Chairman of FQA is worried about possible delays in delivery which may be caused by this recommendation as the doors fitted to the aircraft will now be different from standard. The Managing Director of C has made it clear that any conversion costs will not be borne by C.

Staff Re-training

Although the need for training of cabin staff on the equipment in the C 491 is very limited and can be undertaken very quickly, that required for the flight crew is extensive. In order to undertake the flight crew training, FQA engaged a supplier to provide flight deck training equipment called a simulator. (The flight deck is where the pilots and flight engineer are positioned at the front of the aircraft.) The supplier has informed the Chief Operating Officer at FQA that there is expected to be a three month delay in the supply of the simulator. This will

mean that the programme of training for flight deck staff will be severely disrupted and cause a delay of up to three months.

The Chief Operating Officer has been in contact with other suppliers of the simulators but as yet has not found one that can improve on delivery. However, as a contingency, he has instructed his staff to try and find a way of halving the amount of training time needed on the simulator as an interim measure until FQA is back on track with its original schedule of pilot training.

Increasing competition

In addition to the increasing levels of competition being felt by FQA from foreign airlines, there is the ever growing threat posed by the low-priced (sometimes called “no frills”) airlines. Three such airlines have been established in FQA's home country. They mainly operate on short haul routes although one of them is now planning to establish a long-haul route to the USA. Although the fares of these low-priced airlines are variable, they retail their tickets at substantially lower prices than those of FQA's economy fares on the short-haul routes. Seats on the low-priced airlines are not guaranteed and they notoriously oversell their seating capacity. This means that often passengers are left stranded at airports waiting for the next available flight which may not be on the same day. As they are low-priced, their tickets provide only minimal compensation should this occur.

Not surprisingly, the standard of service offered by the low-priced airlines is basic with extras such as food and beverages in the cabin being on sale whereas these items are a standard part of FQA's service. The ratio of cabin staff to passengers of the low-priced airlines is set to provide the minimum levels of cover in accordance with safety legislation. The cabin staff will only carry out the most essential services to satisfy basic passenger comfort.

Nevertheless, the market share of the low-priced airlines is increasing as many passengers are willing to accept lower standards of service for a cheaper flight. Some corporate customers are sending staff on low-priced airlines, especially where it is not essential that the employee arrives at the destination on a particular day.

FQA's Director of Corporate Development together with the Director of Sales and Marketing are presenting a joint paper to the Board which proposes that FQA should now enter the low-priced market on short haul flights at a reduced ticket price. This will be in addition to their normal full-fare services.

Delay in opening of new terminal at the airport in the capital city in FQA's home country

The new airport terminal at FQA's home airport in the capital city, due to be opened on 1 January 2008, is intended for the exclusive use of FQA and will provide the total service requirements for all its flights. Work on the terminal has not gone as well as planned in respect of the new configuration necessary to accommodate the C 491. Infrastructure delays are likely to result in a six-month delay in the terminal becoming operational. However, temporary measures are in place to enable the C491 to be operated from the airport but at significant inconvenience to passengers and staff.

The delay in the new terminal building has attracted much criticism in the press. This is because the existing arrangements operated by FQA in its home airport in the capital city already leads to long queues. There is also under provision of facilities for passengers at the peak holiday period. The Board has accepted that this will continue until the new terminal is opened.

FQA's financial performance

The Chairman of one of the two largest shareholders of FQA is seeking to increase the value of his company (called JJJ) as quickly as possible. This is because JJJ is now subject to a hostile take-over bid. Consequently, the Chairman of JJJ is keen to see an improvement in FQA's short term profits. FQA's Chairman and Chief Executive are resisting attempts by the Chairman of JJJ to publish a higher profit forecast. The Chairman and Chief Executive of FQA recognise

however that current year growth in profit attributable to shareholders will not be as great as that achieved in the 2005/06 financial year.

New business opportunities

(i) *Bid for a landing slot on a new route*

The Board is considering tendering for a landing slot on a new route to the USA which is available from January 2009. The process is for airlines to bid for the landing slot. The landing slot is likely to be awarded by the Aviation Authority in the USA to the highest bidder, subject to it meeting the Authority's minimum standards laid down for operating.

(ii) *Opportunity for a new freight contract*

An opportunity has arisen for FQA to tender for a new freight contract. This would necessitate the C 491 being used due to the bulky nature of the highly toxic goods being transported. It has become clear that no other major airline is prepared to transport the goods as they consider them to be a very hazardous cargo. This contract is to a country in Europe, but if the contract were taken it would require significant alteration to two C 491 aircraft in the fleet. This is because FQA would need to guarantee a daily service which cannot be achieved by only one aircraft. This contract is available for two years from 1 January 2009 at first although it may be extended after the two years. The Finance Director has calculated that the contract will provide a cash pay back in the third year of operation and will achieve significant levels of surplus cash flows after that, resulting in a positive NPV at the end of the third year.

APPENDIX B

Extracts from a comparison between Lease and Buy for one C 491

Present value of cash flows for the buy option (that is to purchase outright by borrowing funds at a pre-tax rate of 8%) is -\$209 million; that is it will cost \$209 million to buy one aircraft in NPV terms based on:

1. An interest rate of 8%;
2. An effective tax rate of 25%;
3. A capital cost of \$250 million per aircraft with the capital sum being repaid at the end of 10 years;
4. No re-sale value at the end of the 10 year period.

The NPV of leasing the aircraft is -\$268 million based on:

1. Leasing charges of \$45 million per year;
2. The first lease payment being made 1 January 2008;
3. A 10 year lease period;
4. An effective tax rate of 25%.

APPLICABLE MATHS TABLES AND FORMULAE

Present value table

Present value of 1.00 unit of currency, that is $(1 + r)^{-n}$ where r = interest rate; n = number of periods until payment or receipt.

Periods (n)	Interest rates (r)									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149

Periods (n)	Interest rates (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.079	0.065
16	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026

Cumulative present value of 1.00 unit of currency per annum, Receivable or Payable at the end of each year for n years $\left[\frac{1-(1+r)^{-n}}{r} \right]$

Periods (n)	Interest rates (r)									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201
19	17.226	15.679	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.351	14.878	13.590	12.462	11.470	10.594	9.818	9.129	8.514

Periods (n)	Interest rates (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675
16	7.379	6.974	6.604	6.265	5.954	5.668	5.405	5.162	4.938	4.730
17	7.549	7.120	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775
18	7.702	7.250	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812
19	7.839	7.366	6.938	6.550	6.198	5.877	5.584	5.316	5.070	4.843
20	7.963	7.469	7.025	6.623	6.259	5.929	5.628	5.353	5.101	4.870

FORMULAE

Valuation Models

- (i) Irredeemable preference share, paying a constant annual dividend, d , in perpetuity, where P_0 is the ex-div value:

$$P_0 = \frac{d}{k_{\text{pref}}}$$

- (ii) Ordinary (Equity) share, paying a constant annual dividend, d , in perpetuity, where P_0 is the ex-div value:

$$P_0 = \frac{d}{k_e}$$

- (iii) Ordinary (Equity) share, paying an annual dividend, d , growing in perpetuity at a constant rate, g , where P_0 is the ex-div value:

$$P_0 = \frac{d_1}{k_e - g} \text{ or } P_0 = \frac{d_0 [1 + g]}{k_e - g}$$

- (iv) Irredeemable (Undated) debt, paying annual after tax interest, $i(1-t)$, in perpetuity, where P_0 is the ex-interest value:

$$P_0 = \frac{i[1 - t]}{k_{\text{dnet}}}$$

or, without tax:

$$P_0 = \frac{i}{k_d}$$

- (v) Future value of S , of a sum X , invested for n periods, compounded at $r\%$ interest:

$$S = X[1 + r]^n$$

- (vi) Present value of £1 payable or receivable in n years, discounted at $r\%$ per annum:

$$PV = \frac{1}{[1 + r]^n}$$

- (vii) Present value of an annuity of £1 per annum, receivable or payable for n years, commencing in one year, discounted at $r\%$ per annum:

$$PV = \frac{1}{r} \left[1 - \frac{1}{[1 + r]^n} \right]$$

- (viii) Present value of £1 per annum, payable or receivable in perpetuity, commencing in one year, discounted at $r\%$ per annum:

$$PV = \frac{1}{r}$$

- (ix) Present value of £1 per annum, receivable or payable, commencing in one year, growing in perpetuity at a constant rate of $g\%$ per annum, discounted at $r\%$ per annum:

$$PV = \frac{1}{r - g}$$

Cost of Capital

- (i) Cost of irredeemable preference capital, paying an annual dividend, d , in perpetuity, and having a current ex-div price P_0 :

$$k_{pref} = \frac{d}{P_0}$$

- (ii) Cost of irredeemable debt capital, paying annual net interest, $i(1 - t)$, and having a current ex-interest price P_0 :

$$k_{dnet} = \frac{i[1 - t]}{P_0}$$

- (iii) Cost of ordinary (equity) share capital, paying an annual dividend, d , in perpetuity, and having a current ex-div price P_0 :

$$k_e = \frac{d}{P_0}$$

- (iv) Cost of ordinary (equity) share capital, having a current ex-div price, P_0 , having just paid a dividend, d_0 , with the dividend growing in perpetuity by a constant $g\%$ per annum:

$$k_e = \frac{d_1}{P_0} + g \quad \text{or} \quad k_e = \frac{d_0[1 + g]}{P_0} + g$$

- (v) Cost of ordinary (equity) share capital, using the CAPM:

$$k_e = R_f + [R_m - R_f]\beta$$

- (vi) Weighted average cost of capital, k_0 :

$$k_0 = k_e \left[\frac{V_E}{V_E + V_D} \right] + k_d \left[\frac{V_D}{V_E + V_D} \right]$$

*P10 – Test of Professional
Competence in Management
Accounting*

May 2007