

November 2007

Merbatty Boat Case - unseen material provided on examination day

Read this information before you answer the question

Adverse weather conditions resulting in reduced stock market confidence

As a result of increasingly unusual weather and harsh sea conditions linked to global warming, there have been a growing number of boats "lost at sea". In fact, 30 boats sunk last year. After the required investigations, none of the boat models were found to have any design faults. In October 2007, following a severe storm, a further 4 boats, including a Merbatty-built boat, were "lost at sea". These boat losses attracted much adverse press speculation.

The stock market has reacted to the current loss in confidence and all companies in this sector have seen a fall in share prices by around 7%. Merbatty's share price at the end of June 2007 was €3.65 but since the end of October 2007 the shares have been trading at around €3.40.

Most manufacturers worldwide have seen a reduction in advance orders. As a result of the downturn in sales, some competitors have reacted by reducing their selling prices in order to stimulate sales.

Updated navigation software

As a result of this recent adverse publicity, Marinatron (Merbatty's supplier of on-board systems) has updated its latest satellite navigation software to include an enhanced early warning weather system. Marinatron has identified a strong demand for this enhanced early warning feature. The new navigation software system costs €70,000 per system, whereas the previous navigation software system was only €10,000. Marinatron is advising all boat manufacturers that they should install this latest navigation software system to all newly manufactured boats. Marinatron has requested boat manufacturers to inform all of their previous customers of the availability of this new enhanced navigation software system, so that customers can decide for themselves whether they want to have it installed at an additional cost.

Alain Mina, Technical Director - Systems and IT, does not believe that this new navigation software system is worth the extra cost and has made a decision not to procure this new system for boats currently in production. He also considers that the extra cost that Merbatty would incur, could not be passed onto customers, as the customers have already signed contracts for their boats. Additionally, Alain Mina has advised the Board that, in his opinion, this new navigation software system is not necessary and that if Merbatty's existing customers were to be asked if they wanted a new system, they may feel disappointed with the existing IT systems installed. The Merbatty Board agreed not to inform existing customers of the updated navigation software system.

Merbatty's boat building facilities

Merbatty's new boat building facility in Surania opened, as planned, in September 2007 and Merbatty has selected this facility to construct all boats for customers based in the Middle East as well as to specialise in the construction of all large boats for customers worldwide. The Suranian boat building facility has already commenced work on a number of large boats.

As a result of strong competition in the USA, Merbatty has seen its boat sales from the USA fall significantly from the planned levels in 2007 and beyond. The original five-year plan (shown in **Appendix 5** to the pre-seen material) predicted that by 2011 24% of total sales revenue would be from customers based in the USA. However, it is now predicted that sales revenue from USA customers will be far lower.

Bernie Ritzol, Merbatty's Global Market Development Director, has prepared a proposal to the Merbatty Board to close the USA boat building facility during 2009 and to develop an additional boat building facility in Asia (originally planned for 2011), as much of Merbatty's recent growth has been in the Asia and Australasia regions. This proposal highlights that a boat building facility in Asia would result in a significantly lower cost base, due to lower staff costs. The differential between the two locations is forecast to be increased post-tax profits of €10 million per year.

If this proposal were to be agreed by Merbatty's board, then additional loan finance would be required in order to finance the required capital expenditure, as the USA boat facility would need to remain operational until the proposed new facility opened in Asia. The USA boat building facility could then be closed and the land sold to repay debt.

An alternative strategic proposal is to expand Merbatty's boat building facilities in Europe. A large plot of river-side land next to Merbatty's European boat building facility has been put up for sale which would allow Merbatty to extend its facilities, which would replace the need to expand to Asia. If Merbatty were to expand its operations in its home country then this site would be invaluable.

Tobias Houllier, the Operations Director, considers that Merbatty's expertise should be retained in Europe and he has prepared a proposal to acquire this European land for future strategic purposes. Tobias Houllier has highlighted that if Merbatty did not acquire it on this occasion, then it is unlikely that it would be able to get such a prime river frontage site in the locality again. The land (only) is forecast to cost €40 million including legal and surveying costs. This cost excludes the construction of the boat building facility itself. A decision as to whether Merbatty should acquire this European land, or not, needs to be made by the middle of December 2007. This is to ensure that it is not acquired by another buyer.

Effect on Merbatty's profitability due to currency fluctuations

Merbatty has its cost base in Euros, US Dollars and the Middle East currency of Dinars. However, Merbatty is a European company and its profits are accounted and reported in Euros. Its revenues are generated in only Euros or US Dollars. Merbatty is a European company, listed on a European stock exchange, and its group profits are reported in Euros.

The majority of its costs are currently denominated in Euros, as all of the engines it procures for all boat models are from MNE, which is European based. However, over 60% of its sales revenues have historically been contracted for in US Dollars, as customers in the USA, Middle East and other areas prefer to pay in US Dollars rather than Euros. The company has a policy of hedging all currency transactions at the point of signing a sales contract so that the value of future sales receipts is known for certainty in Euros, its base currency. Merbatty is also able to net its payments and receipts in US Dollars including its agency fees and staff costs. Therefore transaction exposure is minimised as much as possible.

Due to the current exchange rate between Euros and US dollars, Merbatty has identified that over 90% of its customers in the last six months have chosen to contract for new boats in US dollars. If the trend in sales denominated in US dollars were to continue, which has allowed customers to purchase their boats at a lower price, then this would have an adverse effect on Merbatty's profits. The adverse effect is forecast to be around €6 million on post-tax profitability in 2008, unless action is taken by Merbatty.

Andreas Acosta, the Finance Director, has asked Stefan Gil, Sales Director, what actions could be taken to secure more sales in Euros or alternatively whether Merbatty should have its price list denominated only in Euros.

Higher operating costs than planned

Andreas Acosta has prepared an updated plan for the period 2007 to 2012. The updated plans are due to be discussed at a Board meeting in early December 2007. They show lower levels of profitability than the agreed five-year plan (shown in **Appendix 5** to the pre-seen material).

However, the latest full year forecast for 2007, shows post-tax profits of €45 million, as planned, due to slightly higher sales earlier in the year, offset by higher operating costs.

The updated plan shows that post-tax profits could be €12 million lower than planned, at €39 million for 2008, rather than the original approved planned post-tax profit of €51 million. The post-tax forecast profit for 2008 of €39 million includes the forecast adverse effect of currency changes of €6 million post-tax, as detailed above and also the lower forecast sales in the USA (as detailed above). However, it does not include the impact of Stefan Gil's resignation (see later) and also does not include the impact of the proposed new sales agency in the USA (see later). Future years' post-tax profits are also forecast to be lower than planned.

Proposals to reduce operating costs

Henri Gaston, Merbatty's Chief Executive, has stated that actions need to be taken in order for the agreed profitability in the five-year plan to be delivered.

Henri Gaston has suggested that one possible area for cost reduction is to change the supplier of the engines for Merbatty's boats. The cost of engines represents the single largest bought in component in the boat building process. The cost of engines from Merbatty's sole engine supplier, MNE, amounted to €38 million in 2006. MNE increased its prices in May 2007. The price rise was slightly higher than Merbatty had incorporated in its plans. Another engine manufacturer, ENG (which is based in the USA) could supply Merbatty with engines for around half of its boat models at a lower cost, with no necessary redesigning of the engine space in the boat. Merbatty has considered using ENG in the past. Lukas Dian, Merbatty's Technical Director – Design, states that these alternative engines would not generate the same power, and could have an adverse effect on Merbatty's high reputation. It is estimated that if Merbatty were to select engines from ENG for half of its boat models, this could result in post-tax savings of around €4 million in 2008.

Henri Gaston has asked his fellow Directors to re-examine areas where additional revenues could be generated or reduced costs could be identified. He considers that it may be possible to increase the selling price on Merbatty's top priced boat, which is the model P3000, which currently retails at €4.7 million each, excluding revenues from additional features. The latest plan is that the number of boat sales of this model in 2008 will be 50% higher than the number sold in 2006.

Henri Gaston has asked whether Merbatty could reduce the specifications for some new boats by using cheaper, lower technology equipment. Henri Gaston has also asked whether Merbatty could reduce the expenditure on the development of new boat models, which is forecast to be around €8 million post-tax each year.

Henri Gaston has suggested that Jesper Blanc, Marketing Director, should immediately terminate both of the sponsorship contracts, which could save Merbatty a total of €6.5 million post-tax each year (the sponsorship contracts costs Merbatty €5 million each before tax).

Merbatty's Sales Director resigns

In early November 2007, Stefan Gil announced his resignation and stated that he was moving to CCL, a rival boat building company based in Europe. His contract of employment with Merbatty did not prevent him from taking up this position. It was agreed that it would be in Merbatty's best interests if he did not remain with the company during his three month notice period. He therefore left Merbatty on 9 November 2007. Stefan Gil still owns 5.4 million shares (3.0%) in Merbatty.

At the November 2007 Board meeting it was agreed that Stefan Gil's deputy was too inexperienced to be promoted to Sales Director and in the meantime, Jesper Blanc has been asked to take on the Sales Director's responsibilities in addition to his role as Marketing Director.

Merbatty's sales agents in the USA

The majority of Merbatty's sales to end customers are made through agents. The commission cost of operating an agency service is 4% of sales revenue. In early October 2007, one of Merbatty's USA sales agents, LABS, (which sold only Merbatty boats) gave three months' notice of the termination of its agency for Merbatty. With effect from January 2008, LABS will sell boats for a major competitor. In the previous five years LABS sold approximately 60% of Merbatty's boats in the USA market.

In November 2007, after Stefan Gil's resignation, Jesper Blanc approached another experienced boat sales agency, SFBS, and invited it to switch from selling boats built by one of Merbatty's competitors. SFBS has a very good reputation. SFBS has officially responded to confirm that it would agree to exclusively sell Merbatty boats, but only if Merbatty were to agree to a higher agency fee of 8%. However, Andreas Acosta is concerned that other Merbatty agents around the world will learn of SFBS's proposed agency arrangements.

Take-over bid by CCL

One of Merbatty's boat building competitors is CCL. CCL is a listed company with sales revenue at around the same level as Merbatty, although its net profit margin is lower. CCL's share price has not grown as its investors had expected and the Board of CCL is under pressure to deliver higher earnings per share (EPS). CCL's Business Planning Director has been monitoring Merbatty's impressive growth in sales, and its recent listing. He has convinced the CCL Board that if it were to acquire Merbatty, it would help to improve CCL's EPS. CCL is the same company that has recently recruited Stefan Gil, Merbatty's ex Sales Director.

On 16 November 2007, CCL announced its intention to offer the equivalent of €4.20 per share, in a share for share exchange offer. CCL stated that it would require a majority shareholding if the acquisition is to proceed. Prior to the announcement of CCL's take-over bid, Merbatty's shares had been trading at around €3.40. After the take-over bid was announced Merbatty's share price rose, due to speculation, and on 19 November 2007 was €3.74. Both companies had a P/E ratio around the market average of 15 before the bid was announced.

At the scheduled Merbatty Board meeting on Monday 19 November 2007 the take-over bid by CCL was discussed. Together with its corporate advisers, Merbatty made a press statement advising shareholders to reject the bid. Alberto Blanc was quoted as saying "Merbatty is confident that its long term growth prospects would be higher if Merbatty were to remain independent".

Merbatty's main external investor, JKL, stated that it needed to be convinced as to whether it should accept, or reject, CCL's bid.

Jesper Blanc considers that the CCL bid could be an opportunity for him to give up his responsibilities to Merbatty. He has spoken to his father, Alberto Blanc, the Chairman, about his plans to sell his shares. Alberto Blanc is very disappointed at his son's plans to sell his shares, as he had always wanted Jesper Blanc to be the Chairman of Merbatty one day. Alberto Blanc has promised that Merbatty will pay Jesper Blanc a loyalty bonus of €3 million during 2008 if Jesper Blanc agrees not to sell his shares to CCL.

Computer test program results showing possible faults

Merbatty has very recently upgraded its computer test program for a number of its larger boat designs. The test program was purchased from a leading software company, which developed this specialised software. It has proved to be very reliable in identifying small faults in boats under construction.

During October 2007 the test program indicated a number of errors and potential faults on four large boats. However, Alain Mina, Merbatty's Technical Director for Systems and IT, has told the test team to ignore these error reports, as he considers that they are likely to be computer

systems errors, and not real faults with the boats. The customers for these boats are very influential individuals and Alain Mina is keen not to delay delivery of the boats to them.

Appointment of a consultant

At the Merbatty Board meeting held on 19 November 2007 it was agreed that a consultant would be appointed to advise the Board on the issues facing Merbatty.

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*

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