

## **Eurotunnel**

Revised: August 28, 2002

The idea of building a fixed link to connect England and France is a very old one; the first proposal was presented to Napoleon in 1802. From late in the 19th Century until 1975, the project went through several starts and stops. Construction was finally started in 1987 and in 1990 engineers and diggers from the two sides met under the Channel waters. The official opening was held in May of 1994.

In 1987, the British and French governments granted Eurotunnel a monopoly franchise on the “Chunnel” until 2051. In 1999, this concession was extended until 2086, the 99th year of the original grant, after which time ownership will revert to the governments of France and the UK. As a condition to extend the concession, between 2052 and 2086 Eurotunnel will pay the governments 40% of its net profit (50% before tax), instead of 25% as initially agreed.

### **Operations**

The Eurotunnel System is the only service that provides a direct link between the highway networks of England and France. Train shuttles owned by Eurotunnel, “Le Shuttle Tourist” (passenger shuttle services) and “Le Shuttle Freight” (freight shuttle services), carry both passenger cars and trucks (Heavy Goods Vehicles, or “HGVs”) across the channel. These shuttles connect the Folkestone and Calais/Coquelles terminals and operate around the clock, traveling at up to 87 miles per hour unaffected by sea conditions. Each shuttle can carry up to 120 cars and 12 coaches. Passengers pass through both British and French customs and police frontier controls before reaching the boarding area.

The Eurotunnel system also allows the Eurostar passenger train service and various freight rail carriers to cross the channel using its infrastructure. These carriers pay Eurotunnel for the right to use the tunnel and can use up to half of its paths.

### **Revenues**

The Eurostar licensing deal forms a major component of Eurotunnel’s revenue base: 35% in 2000. Through an agreement called the Railway Usage Contract (RUC), which governs usage of the system through 2052, Eurotunnel licensed the Chunnel’s freight-carrying railways. The RUC entitles Eurotunnel to receive a fixed annual payment, called the Minimum Usage Charge (MUC), through 2006.

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After the MUC expires, Eurotunnel will be compensated based on the number of train passengers and freight tonnage carried by rail. The actual level of freight and passenger train traffic generated today is less than the amount specified in the MUC, so on a marked-to-market basis, Eurotunnel's profitability and cash flow are overstated by as much as £50 million. However, it is expected that by 2006 the level of traffic will have risen to a level that approximates today's payment. The addition of new rail routes should help achieve this goal.

Although it damaged ferry operators more, the abolition of EU duty free sales in 1999 also diminished Eurotunnel's prospects for success, causing Retail and Other sales to decline 28% from 1998. In reaction to this, Eurotunnel increased its shuttle prices significantly. Average fare prices for car and coach passengers rose by 20% according to a company spokesman quoted in Bloomberg News. Other sources indicated that average prices rose as much as 45%. The end of duty free shopping also affected demand for the Eurotunnel's passenger shuttles.

### **Competition**

Eurotunnel enjoys very high market shares in the Dover-Calais cross-channel market. It has been eating away at the traditional but slower methods of crossing the Channel: passenger and freight ferries. The Eurotunnel is estimated to have 46% of the HGV Dover-Calais market and 55% of the car market. When planned HGV capacity increases are implemented, the HGV share figure is likely to increase.

The ferryboat operators reacted to loss of market share in two ways: first, they cut prices; second, they subsidized fares with profits earned from duty free concessions. This strategy proved unsustainable, however, when duty free shopping in the EU was abolished in July of 1999.

The Channel's key advantage is speed. For HGV transport, crossing the channel takes 90 minutes by ferry, but only 35 minutes via the Channel. Moreover, marginal costs at the Eurotunnel are estimated to be one-tenth those of the ferry services. Eurotunnel's operating costs are largely fixed, resulting in very high operating leverage.

### **Economics and finance**

Because of cost overruns, Eurotunnel's ability to remain a going concern has been questioned for years. Operating profits simply did not cover the interest expense on debt. At the end of 1997, for instance, the company had debt of £8.8 billion and EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) of £209 million, against an interest expense of £640 million.

In 1998, Eurotunnel's capital financing underwent a significant restructuring that included the conversion of more than £3 billion of debt into equity, quasi-equity or participating notes. Other debt holders had to accept substantially longer maturities and lower interest rates. There is currently a "stabilization period" ending in 2006 that

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essentially defers cash payments to some creditors based on a seniority schedule. When the stabilization period ends, Eurotunnel will need to meet the debt service obligations on a current basis.

### **Questions for Analysis**

- (a) How should Eurotunnel's profitability be analyzed, on an operating level or including debt financing?
- (b) Was the Chunnel project worth undertaking? Should it have been discontinued at any point, given the information then available?
- (c) Why did Eurotunnel increase prices when duty free sales were abolished?

### **Additional Information Sources**

Eurotunnel web site: [http://www.eurotunnel.co.uk/english/explorer\\_e.htm](http://www.eurotunnel.co.uk/english/explorer_e.htm)

### **Notes**

*Kenneth Goldman and Charles Miller prepared this case under the supervision of Luis Cabral and David Backus for the purpose of class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. © 2001 David Backus and Luis Cabral.*

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### Exhibit 1. Chunnel facts

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- The Chunnel runs a length of 31 miles, 23 of which are underwater
  - The average depth of the tunnel is around 150 feet under the seabed
  - Three different tunnels make up the Chunnel, two single-track railway tunnels and a central service tunnel used for safety and services
  - The three tunnels combined make up 95 miles of tunnels
  - The rubble removed from the tunnel increases the size of Britain by 90 acres. Equivalent to 68 football fields, it has been made into a park
  - The volume of rubble removed from the tunnel is three times greater than that of the Cheops Pyramid in Egypt
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Source: <http://www.cmi.k12.il.us/~beuschlo/vashi.html#History>.

### Exhibit 2. Eurotunnel traffic ('000)

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Year	1996	1997	1998	1999	2000
Trucks	519	256	705	819	1,333
Cars	2,077	2,329	3,351	3,260	2,784
Train passengers	4,867	6,004	6,038	6,593	7,130

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Source: Eurotunnel web site.

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**Exhibit 3. Eurotunnel's initial profit projections (£ million)**

Year	1994	2000	2013	2023	2033	2043	2051
Revenue	137	1056	2261	3584	5285	7201	9300
Oper. Costs	(144)	(311)	(614)	(951)	(1390)	(1917)	(2478)
Dep. + ammort.	(87)	(170)	(205)	(294)	(421)	(622)	(1100)
Interest	(286)	(606)	(420)	(338)	(325)	(139)	138
Profit (post-tax)	(382)	(89)	569	1273	2006	2921	3786

Source: Eurotunnel Rights Issue, May 1994.

**Exhibit 4. Eurotunnel's revenues (£ million)**

Year	1997	1998	1999	2000*	2001*
Shuttle Services	113	210	270	147	146
Railways	212	213	215	103	105
Retail and other	132	196	141	37	25
Total turnover	456	618	627	287	274

Source: Dresdner Kleinwort Benson Research (1997-2000). Yahoo! Finance (2000-2001).

\* First six months.

**Exhibit 5. Eurotunnel's operating results (£ million)**

Year	1997	1998	1999	2000*	2001*
Total turnover	456	618	626	287	274
Operating expenditure	474	483	445	131	120
Operating result	57	184	210	91	87
Financial charges	749	411	362	166	166
Exceptional profit	7	279	296	4	6
Profit	(611)	64	202	(78)	(61)

Source: Dresdner Kleinwort Benson Research (1997-2000). Yahoo! Finance (2000-2001).

\* First six months.