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PETER S. MORRELL

Airline Finance

Fourth Edition

PETER S. MORRELL
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AIRLINE FINANCE

Reviews for

Airline Finance

Fourth Edition

The Fourth Edition of Dr Peter Morrell's Airline Finance *is required reading for anyone looking to understand the financial complexities of aviation. His use of real-world examples, taken from airlines' annual reports, renders the work interesting, insightful and relevant, and his explanation of what everything means and how it all fits together is world-class. Look no further for real expertise in aviation finance. Well done, Peter!*

John Slosar, Chief Executive, Cathay Pacific Airways Ltd.

This book takes the non-specialist reader on a marvelous and informative tour through the intricacies of airline finance. It should be required reading for any analyst, financier, airline executive, regulator or student wanting to understand how to measure and compare airline financial performance, raise finance to buy aircraft, manage financial risk, and more. It's also an entertaining read packed with up to date examples drawn from airline situations around the world.

Brian Pearce, Chief Economist, International Air Transport Association

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Preface

The purpose of this book is to provide, as far as possible, a broad understanding of all areas of airline finance. To do this, it has been necessary to sacrifice some detail, but sometimes accountants and industry specialists will be directed to other texts to explore more complex topics further. In many cases, however, these other texts do not exist, at least in an air transport industry context. This significant gap, at least at the level of the non-specialist, is the main reason for this book. While there are obviously numerous financial management, corporate finance and related texts available, none of these provide explanations, as this book does, for some of the quirks of the airline industry (e.g. the accounting treatment of frequent flyer programmes or the various aircraft leasing options available). Furthermore, none of them provide worked examples based solely on the air transport industry.

It is hoped that each area of airline financial management will be discussed in sufficient depth to satisfy both those in the industry without any financial background, and newcomers to the industry, perhaps with some knowledge of finance. No prior knowledge is required of, for example, accounting, economics or statistics to gain considerable benefit from the book. In a few cases, notably in the chapters on investment appraisal and aircraft leasing, mathematical formulæ have been used, but in such cases they are based on relatively simple compound interest concepts, and generally confined to a separate appendix at the end of the chapter.

The opening chapter describes the financial trends for the airline industry as a whole, with developments for the major regions and airlines contrasted. It also provides an introduction to the impact on the airline industry of the global financial and banking crisis that began to unfold over 2007 and 2008 and was far from solved by 2013. This is followed by a step by step analysis of an airline's financial statements. Cathay Pacific Airways has replaced British Airways in this fourth edition for the worked examples because of the latter's merger with Iberia which resulted in a change in financial year. Two rather different operating subsidiaries were subsequently consolidated into the group accounts, making it a more complex case study to consider. Cathay Pacific was thus chosen as a key airline in a fast growing region, but with a simpler, more typical airline financial structure. It also presents its published financial statements in English and with sufficient clarity and detail for the reader to obtain a good understanding. Other airlines' accounts are also introduced to contrast different approaches, especially US Airways (an airline of similar size to Cathay) and in some cases Lufthansa, to compare financial performance and ratios.

The valuation of an airline as a whole, its route rights and airport take-off and landing slots are dealt with next, covering the techniques applied both in equity

IPOs (Chapter 6) and airline privatisation (Chapter 7). First, sources of finance are discussed and the institutions that specialise in airline financing, especially the export credit agencies that have recently played a key role. This is followed by a chapter on equity finance that looks at ways start-up airlines are financed. The application of some of the key techniques in financial analysis are then explained and applied to the airline industry, supported by practical examples faced by airline planners. The role played by hedging and derivatives in the airline industry is introduced in the next chapter, again supported by actual airline examples. Fuel price hedging has been further expanded in this edition, both because of its close relationship with currency hedging, and also because of its more widespread use by airlines and greater relevance. Interest rate hedging is introduced for the first time in this edition to complete the major areas of financial uncertainty. Leasing is examined in some detail, and aircraft securitisation is explained, as well as a new chapter on airline bankruptcy before concluding with an evaluation of the financial prospects of the industry. Wherever possible, the links between the various elements of airline finance will be highlighted and the impact of the 2007/08 banking crisis examined, although the textbook nature of the book will ensure that each chapter and topic could be consulted separately.

Finally, it would be impossible to mention all those who have contributed, knowingly or otherwise, to the book. Over the past years, MSc students of air transport management at Cranfield University have made numerous valuable comments, pointed out errors, and generally provided the motivation for the development of much of the material presented here. Over the same period, airline industry executives attending short courses at Cranfield have done the same, albeit from a different perspective. Special thanks must also be extended to senior airline industry experts who have given up their precious time over the past years to contribute to those courses (and my understanding of the industry), in particular Ian Milne of British Airways, Alan Robinson of ALM, John Ludden and colleagues from GECAS, Kevin Jones of ECGD, Alan Meldrum and colleagues from KPMG and Andrew Lobbenberg, a former colleague now with HSBC.

I am also grateful to all my former colleagues in the Department of Air Transport at Cranfield University for their help in discussing both industry trends and the more specific concepts included in this book.

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Chapter 1
Industry Financial Performance

1.1 The Impact of the Banking Crisis, Post-2008

The banking crisis was triggered by the collapse of a major US investment bank Lehman Brothers in September 2008, although there were already signs of an impending crisis before then. This was to have far reaching consequences for the world economy, the financing of international trade, the stability of the banking and monetary system, and the world's airlines.

The immediate effect of letting Lehman Brothers cease trading (a government bail-out was considered but rejected) was for the inter-bank lending market to dry up completely with central banks stepping in to prevent the total collapse of the banking system. Trade finance became scarce, and the loss of confidence of traders and investors led to a sharp downturn in the world economy. This was reflected first in a rapid fall in air cargo traffic with a decline in passenger numbers following. World international air cargo tonne-kms fell 0.8 per cent in 2008, and a staggering 8.8 per cent in 2009, the largest fall for at least 20 years. Passenger-km traffic was 3.3 per cent up in 2008, but fell by 1.3 per cent in 2009.

The cause of the banking crisis was firstly bank lending to investors in the property markets, mainly in the US but also in Europe. This so-called 'sub-prime' lending was based on a boom in house prices which the lenders assumed would continue long enough for them to be repaid and pocket their fast growing profits. The growth of this business was increasingly fuelled by lack of credit checks and loan amounts in excess of the value of the collateral (the house or apartment). Second, these loans were being packaged or securitised and sold on to other investors,[1] so as to free up bank balance sheets to lend more to even worse risk borrowers. Securitisation was also applied to aircraft leasing in a more cautious and limited way, described in Chapter 11.

No single event started the collapse, but the significant change was the housing bubble bursting and prices starting to fall. This led to very large book losses for many of the large international banks that had been involved in what had been a very profitable business. Governments now decided that banks should be bailed out rather than risk an international collapse of the banking system. Central banks pumped large amounts of credit into the system, and the world economy made a short-lived recovery, with air traffic (especially air cargo) bouncing back in 2010.

1 Some of the 'other' investors were companies set up by the same banks, and thus ultimately owned and controlled by them.