



WILEY FINANCE

Cash flow analysis and forecasting

*The Definitive Guide to
Understanding and Using
Published Cash Flow Data*



TIMOTHY JURY



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and Using Published Cash Flow Data*

Timothy D.H. Jury



 **WILEY**

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Cash Flow Analysis and Forecasting

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To my mother and father,
brother and sisters for always being there

Introduction

This book is the definitive guide to cash flow analysis. It is designed to be the definitive first reference on all aspects of historic cash flow analysis. It also provides an incisive overview of the risks to be managed in preparing cash flow forecasts.

It has been written from a cash flow-centric point of view. Other financial and analytical information is introduced whenever relevant to support the process of cash flow analysis.

This book is designed for people trying to understand and analyse cash flows, probably in a professional context. Whilst it contains some theoretical content, the primary objective is to offer a practical handbook of cash flow analysis.

Ideally, it should first be read like a novel and then dipped into chapter-by-chapter as required; a detailed guide to the contents of each chapter follows this introduction. Much of the information in the book has been laid out to facilitate direct reference from the index; also allowing it to be used as a pure reference text.

Considerable effort has been expended to make the book as user friendly as possible. It has been designed to be relevant and useful both to persons who are coming to cash flows for the first time, and to those who are more experienced in the perils of financial statement analysis! I have paid particular attention to the needs of those who are not native English speakers. I have tried to keep the use of English as clear and concise as possible whilst avoiding the use of unnecessary complexity.

Whilst the book is written primarily for those employed as financial analysts, I have identified four other major user groups whose needs are specifically dealt with in different sections of the book. They are:

- Novices in financial analysis and other persons new to, or relatively unfamiliar with, cash flows in general and their analysis in particular, in all fields of endeavour, who wish to improve their understanding of cash flow.

- Bankers, credit analysts and others involved in business lending and the management of credit exposures and credit risk.
- Investors, fund managers and credit analysts involved in taking investment decisions.
- Entrepreneurs, managers and business people involved in controlling business entities.

The guide to the book, which follows this introduction, provides an indication of the content of each chapter and its relevance to different users. For example, persons who have no desire to actually perform the analysis of the cash flows of a business themselves, but who still wish to understand cash flow, will initially gain little from Chapters 4 and 5 as they are written for persons who are seeking to practically apply the technique for the restatement of published cash flows.

THE LOGIC OF THE BOOK DESIGN

Years of experience as a financial trainer have taught me that people acquire technical knowledge in a very random way from a variety of sources as they come across information relevant to their needs. This sometimes results in a partial, incomplete and often inaccurate understanding of the particular subject in issue. As a trainer and author my objective is to organise the information relevant to a subject or task in a logical and structured way to facilitate and ease the assimilation process. The metaphor I like to use is that of a jigsaw. My audiences will typically have many of the pieces of the jigsaw already in their possession; however, until I facilitate the process of assimilation they have not previously assembled the pieces into a complete picture. When working as a trainer not only do I assist in completing the jigsaw, I also provide the missing pieces, which are different for each participant!

For this reason the book has been organised into specific blocks of knowledge. It can be read sequentially. It can also be used as a reference to provide answers to specific queries and problems by dipping into the relevant part of the book.

COMPLEXITY

The word complex is regularly misused to mean difficult, or beyond the users present comprehension. When things labelled complex are analysed it often becomes clear that what is actually meant is there is a lot of information to assimilate before comprehension of the whole can be gained. The information itself is not particularly demanding to comprehend; there is, however, a lot of it! Writing computer software or learning a musical instrument or foreign language are typical examples.

My strategy for this type of assimilation problem is to chop the information up into lots of little bits that are sufficiently elemental that they can be adequately digested by the person seeking to assimilate the whole area of knowledge and then build the knowledge in a pyramid form by adding blocks and layers in an ordered way. This is the approach I have taken in writing this book.

THE USE OF CASE STUDIES IN THE BOOK

Once the initial chapters have introduced the concepts upon which the analysis of cash flows rely, the book includes a number of case studies that illustrate the use of the technique for cash flow analysis offered. Most of these cases are based on financial information taken from the accounting statements of real business entities. I prefer to do this because there is then no challenge as to the reality of business behaviour. If I create fictional cases for the book there is a risk users will question my conclusions about them and cash flow analysis in general on the basis that the examples are fictionalised and therefore do not represent a reasonable representation of business reality.

However, this inevitably results in problems with dates! The question of how to deal with dates in the book is one that has vexed me significantly. The problem for the publisher and I is that the book will soon appear dated if we show the years from which the case studies were taken in the original. Users may wrongly assume the message and content of the book is somehow less relevant because the material used to illustrate the logic of the technique offered is ageing.

The logic of the cash flow analysis technique offered in the book is essentially timeless, it should work virtually anywhere and anytime financial information is available to perform the analysis. For this reason I have partially disguised the original dates of the material used to illustrate the cases. The timeline of most of the case studies offered is incidental; the examples are there to illustrate the use and benefits of the cash flow analysis technique that is the basis of this book.

Experienced analysts will know that in performing any business analysis the economic context in which the company operates is sometimes highly relevant. Matters such as inflation, interest rates and the state of the economy may affect the conclusions drawn about the relative performance of a business. For this reason, in a small number of cases and where the context of the example warrants it, I have left the dates as they were originally. This allows the reader to put the case into the context of the economic conditions prevailing at the time.

Considerable effort has been expended to keep the various examples, tables and other information both numerically and factually correct, however, it is inevitable in a work of this length that, despite our best efforts, errors may still creep into print. Please do not hesitate to bring these to my attention, to further improve the book as it develops.

I hope this book changes your life. For those whose job is to analyse cash flows for a living it may actually do so!

Capitalisation

Throughout the book, where you see CAPITALISED WORDS, these refer directly to key words in tables and figures that are being discussed and explained in the text.

GUIDE TO THE BOOK

The book is organised into two sections, the first dealing with the analysis of historic cash flow data, the second dealing with the forecasting of cash flow information.

Section One – Historic Cash Flow Analysis

Chapter 1 – Understanding How Cash Flows in a Business

Level basic – the chapter is designed as a layperson's introduction to the whole subject of cash flow in business. In addition to introducing the cash flow patterns seen in business, it outlines a number of other fundamental issues and risks that managers must overcome in order to trade successfully. No prior knowledge of cash flow is assumed. The material is presented from the ground up through the use of straightforward examples.

Despite being offered as a basic introduction everyone seeking to utilise the cash flow analysis technique presented in the book should read this chapter as it introduces and defines part of the terminology used throughout the book.

Chapter 2 – Understanding Cash Flows Properly

Level intermediate – this chapter explains the knowledge and the steps required to analyse cash flows properly. It then commences the process by explaining all the terminology used in a simple cash flow example and introduces the analysis technique for the first time.

Chapter 3 – Start-up, Growth, Mature, Decline

Level intermediate – this chapter introduces the non-financial information needed to get the most out of the cash flow analysis technique offered in the book. Everything offered in this chapter is covered in more detail in Chapters 6 to 10.

Chapter 4 – Restating the Cash Flows of a Real Business

Level advanced – readers without some prior knowledge of financial statement analysis and accounting will find this chapter demanding. Considerable effort has gone into explaining the accounting and analytical knowledge required to properly utilise the cash flow analysis technique offered. The example chosen to illustrate the process being taken from a business preparing its accounts using International Financial Reporting Standards.

Chapter 5 – Restating US GAAP Cash Flows

Level advanced – this follows on from the previous chapter by taking an example of the technique based on a business following US financial accounting rules in the preparation of its financial statements. It is necessary to be familiar with the content of the previous chapter in order to get most benefit from this one.

Chapter 6 – Analysing the Cash Flows of Mature Businesses

Level advanced – this chapter defines the term ‘mature’ and presents the information required to comprehensively analyse the cash flows of a mature business.

Chapter 7 – Analysing the Cash Flows of Growth Businesses

Level advanced – this chapter defines the term ‘growth’ and presents the information required to comprehensively analyse the cash flows of a growth business.

Chapter 8 – Growth and Mature – Further Analysis Issues

Level advanced – this chapter presents two important further issues relevant to the analysis of both growth and mature businesses.

Chapter 9 – Analysing the Cash Flows of Start-up Businesses

Level advanced – this chapter defines the term ‘start-up’ and presents the information required to comprehensively analyse the cash flows of a start-up business.

Chapter 10 – Analysing the Cash Flows of Decline Businesses

Level advanced – this chapter defines the term ‘decline’ and presents the information required to comprehensively analyse the cash flows of a decline business.

Chapter 11 – What to do about Bad Cash Flows

Level advanced – this chapter offers a variety of strategies to make decisions about cash flows that are bad. It suggests a number of questions that the analyst should seek to answer, before coming to conclusions about bad cash flows.

Chapter 12 – Cash Versus Profit as a Measure of Performance

Level advanced – this chapter explains in detail the differences between profit and cash generation as a measure of performance. It points out the pitfalls of using profit alone as a performance indicator.

Chapter 13 – Cash Flow Analysis and Credit Risk

Level advanced – this chapter explains how to tailor the cash flow analysis technique offered specifically to the needs of bankers and others who are exposed to credit risk.

Chapter 14 – Cash Flow Analysis and Performance Measurement

Level advanced – this chapter looks at ways the cash flow analysis technique offered in the book can be used for business performance measurement.

Chapter 15 – Analysing Direct Cash Flow Statements

Level advanced – this chapter deals with the differences between direct and indirect cash flow statements and how to deal with them in applying the cash flow analysis technique. It is necessary to be familiar with the earlier content of the book in order to get the most out of this chapter.

Chapter 16 – Generating a Cash Flow Summary from Profit and Loss Account and Balance Sheet Data

Level advanced – this chapter illustrates how to arrive at a summary of the cash flows of a business entity that does not produce a cash flow statement as part of their financial information. It is essential to be familiar with all the earlier content of the book in order to get the most out of this chapter.

Chapter 17 – Summarising Historic Free Cash Flow

Level advanced – this chapter illustrates how to identify the historic free cash flow of a business entity from the cash flow information derived by using the cash flow

analysis technique presented earlier in the book. It is necessary to be familiar with the earlier content of the book in order to get the most out of this chapter.

Section Two – Forecasting Cash Flows

Chapter 18 – Introduction

Level advanced – this chapter discusses the risks and benefits of forecasting when compared to the analysis of historic information.

Chapter 19 – Spreadsheet Risk

Level advanced – this chapter introduces spreadsheet risk and offers strategies to minimise the problem.

Chapter 20 – Good Practice Spreadsheet Development

Level advanced – this chapter introduces a number of techniques to reduce spreadsheet risk through good modelling practice. It illustrates four examples of common cash flow forecasting models.

Chapter 21 – The Use of Assumptions in Spreadsheet Models

Level advanced – this chapter offers guidance on dealing with assumptions in spreadsheet forecasting models. It then discusses the use of scenarios for risk analysis using spreadsheet forecasts.

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Section One

Historic Cash Flow Analysis

