Accounting for Financial Instruments

A Guide to Valuation and Risk Management

Emanuel Camilleri and
Roxanne Camilleri

ROUTLEDGE

ACCOUNTING FOR FINANCIAL INSTRUMENTS

Accounting for Financial Instruments is about the accounting and regulatory framework associated with the acquisition and disposal of financial instruments; how to determine their value; how to manage the risk connected with them; and ultimately compile a Business Valuation Report.

Specifically, the book covers the following topics, among others: accounting for investments; bills of exchange; management of financial risks; financial analysis (including the Financial Analysis Report); valuation of a business (including the Business Valuation Report) and money laundering. *Accounting for Financial Instruments* fills a gap in the current literature for a comprehensive text that brings together relevant accounting concepts and valid regulatory frameworks, and related procedures regarding the management of financial instruments (investments), which are applicable in the modern business world.

Understanding financial risk management allows the reader to comprehend the importance of analysing a business concern. This is achieved by presenting an analytical framework to illustrate that an entity's performance is greatly influenced by its external and internal environments. The analysis of the external environment examines factors that impact an entity's operational activities, strategic choices, and influence its opportunities and risks. The analysis of the internal environment applies accounting ratio analysis to an entity's financial statements to examine various elements, including liquidity, profitability, asset utilisation, investment, working capital management and capital structure.

The objective of the book is to provide a fundamental knowledge base for those who are interested in managing financial instruments (investments) or studying banking and finance or those who wish to make financial services, particularly banking and finance, their chosen career. *Accounting for Financial Instruments* is highly applicable to both professional accountants and auditors and students alike.

Emanuel Camilleri was the Director General (Strategy and Operations Support) at the Ministry of Finance, the Economy and Investment, Government of Malta. He has had a long career in the Australian defence industry public sector related to ICT and Operations Research applications, and has managed large projects related to accounting applications and Public Service reforms at the Inland Revenue and VAT Departments in Malta. He is a visiting senior lecturer at the Faculty of Economics, Management and Accountancy, University of Malta. Dr Camilleri is Chairman, Privatisation Unit within Ministry for the Economy, Investment and Small Business (Government of Malta), which has the responsibility to privatise Government assets and issue a wide range of long term concessions related to a diverse spectrum of industries and also Chairman, Foundation for Tomorrow's Schools within Ministry for Education and Employment (Government of Malta), which has the responsibility for the schools building and maintenance programme of Government's Public Education sector with a major aim of introducing reforms related to accounting controls and project management.

Roxanne Camilleri is currently a senior auditor with a leading global accountancy firm, RSM. Previously, she held a position of senior auditor with Grant Thornton. Roxanne has conducted accounting audits of many types and sizes of entities both in the private and public sector in Malta and many other European countries for the last six years. Roxanne has a Bachelor of Science Degree (Honours) in Applied Accounting from Oxford-Brooks University, UK and an Advanced Diploma in Accounting and Business from ACCA. Currently, she is undertaking the final ACCA study unit in Taxation Accounting. Roxanne has completed the full ACCA programme, including the professional modules. She is fluent in four languages; Maltese, English, French and Italian.

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To Mary Anne, a wonderful wife and mother

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FOREWORD

Accounting standards have recently been under review and changes introduced have implications for auditors. This book represents a welcome guide to valuation and risk management as part of accounting for financial instruments. It goes beyond the theory as it is illustrated with a diverse number of practical examples which students and practitioners will find useful when planning and performing auditing procedures related to financial instruments. Originators of financial instruments are continuously developing new products and it is a challenge to provide an exhaustive list of all such instruments. However, the list of examples in this book is to be considered quite exhaustive.

The general principles applicable to auditing financial instruments are applicable to all entities. The guidance in this book is intended to be helpful for auditing of entities with different levels of use of financial instruments. The relevance of each area of guidance may differ considerably between different entities. However, the auditor of an entity with relatively few transactions may also have problems not typically faced in an entity with high levels of trading/use of financial instruments.

This book clearly brings to light that the audit engagement team needs to include members with appropriate competence and capabilities to perform the audit work. The complexity inherent in auditing some financial instruments means that there may be areas of the audit that require particular skills and expertise. At the forefront are valuation and risk management. An understanding of these can help an auditor to identify whether important aspects of a transaction are missing or inaccurately recorded, whether a valuation appears appropriate and whether the risks inherent in them are fully understood and controlled by the entity. Valuations of financial instruments which may be volatile need to be accurate. Large and sudden decreases in value may increase the risk that a loss may exceed the amount recorded on the balance sheet.

This book also provides the auditor with an understanding of the risks to which transacted financial instruments expose an entity. Obtaining an understanding of an entity's use of financial instruments and the related risks assists the auditor in identifying and assessing the risks of material misstatement in the financial statements and designing audit procedures in response to those risks.

Dr Camilleri is to be commended for writing what is clearly a highly recommended exhaustive text on valuations and risk for financial instruments.

Prof J.V. Bannister
Chairman Malta Financial Services Authority

PREFACE AND ACKNOWLEDGEMENTS

This book, entitled *Accounting for Financial Instruments: A Guide to Valuation and Risk Management* is in response to a common criticism about the lack of a holistic text that embraces the fundamental accounting concepts for those commencing their profession in financial services. The term financial services includes a wide spectrum of activities, such as commercial banking, corporate finance, financial planning, hedge funds, insurance, investment banking, money management, private equity and real estate. While these diverse financial services require different skills and talents, they all require a good understanding of accounting and written communication skills.

This book is about the accounting and regulatory framework associated with the acquisition and disposal of financial instruments; how to determine their value; how to manage the risk connected with them; and ultimately compile a business valuation report. Financial instruments are tradable assets that include cash, shares, stock, bonds, ownership of an entity, or a contractual right to receive or deliver cash or another financial instrument. Hence, issues related to money laundering also become notable.

The objective of this book is to provide a fundamental knowledge base for those who are interested in managing financial instruments (investments) or studying banking and finance or those who wish to make financial services, particularly banking and finance, their chosen career.

The book structure leads the reader through different concepts. It commences with a concise explanation of the accounting process by explaining the common business activities, such as operational, financing and investment management, leading to the examination of the accounts maintained by companies and the key components of the financial statements. The diversity of financial instruments requires an accounting and regulatory framework. These are the relevant accounting standards (US GAAP and International Financial Reporting Standards) and the accounting treatment for each category of financial instruments. The focus at this point is on the classification and measurement of financial instruments, such as held-to-maturity, loans and receivables that are both measured at amortised cost; and fair value through profit or loss and available-for-sale both of which are measured at fair value. These concepts are important due to the accounting implications when purchasing and selling financial instruments, particularly when the transaction date is not the maturity date, where complex adjustments are needed.

Once the accounting fundamentals are explained, the book shifts its attention to the business and financial analysis of organisations by first focusing on financial risk management. Risk may stem from events taking place across the globe that have nothing to do with the domestic markets and yet have a significant and immediate effect on domestic events. ICT has caused information to be available instantly, thus becoming a very swift change catalyst, with subsequent financial market reactions occurring rapidly; for example, the immediate financial market reaction in Europe and USA to the Asian financial crisis of 1997–1998 and the financial crisis of 2009–2010. Basically, financial risk management is the identification of what may go wrong and taking the appropriate action to mitigate risks in terms of credit, market, foreign exchange, interest rates and commodity prices, among others that are associated with volatility, liquidity and inflation, where the financial markets' reaction to such changes can swiftly become problematic. Financial risk management focuses on when and how to hedge using financial instruments to manage harmful exposures to risk.

Understanding financial risk management allows the reader to comprehend the importance of analysing a business concern. This is achieved by presenting an analytical framework to illustrate that an entity's performance is greatly influenced by its external and internal environments. The analysis of the external environment examines factors that impact an entity's operational activities, strategic choices, and influence its opportunities and risks. On the other hand, the analysis of the internal environment applies accounting ratio analysis to an entity's financial statements to examine various elements, including liquidity, profitability, asset utilisation, investment, working capital management and capital structure.

Analysing a business concern also provides the basis for assessing an entity's market value. Business valuation is a process employed to approximate the economic value of an owner's interest in a business. Numerous valuation methods are explored that are classified under two main categories, namely non-going concern (an entity that will not remain in business) and going concern. The analysis and valuation of a business concern provides the basis for the Business Valuation Report. The book explains the format and contents of the Business Valuation Report using best practice. It is appropriate for a book regarding financial instruments to also address money laundering issues. The business community, in recent years, has had to face an increasing number of regulations regarding anti- money laundering. There are two important implications, first, the impact of enforceable regulatory measures affects every enterprise, irrespective of size and second, regulatory issues are constantly being reviewed and will have a significant impact on enterprises in the future.

In the recent past, I had the pleasure of lecturing a study unit (Accounting for Bankers) for the third year, University of Malta, BCom (Hon) students in Bank and Finance. To my disappointment there was not a single text which brought together in a structured and systematic manner the various topics within the study unit. The topics were spread through a diverse number of text books. Furthermore, not a single book illustrated how a Financial Analysis Report and Business Valuation Report may be formulated and compiled according to best practice. This book is written in a way that the average reader will find interesting and the more inquisitive reader will find challenging.

Finally, I would like to acknowledge the effort of all the staff at Routledge, namely Kristina Abbotts who provided her invaluable and professional advice regarding the development of the general concept of this book and its specific focus; Emma Redley who assisted me with formatting the book and ensuring that I followed the established Routledge standards; Alice Stoakley who meticulously carried out the corrections and copy editing; Laurence Paul for his valuable assistance in the production process as Project Manager; and the marketing team for the professional way they promoted this book.

Emanuel Camilleri
Roxanne Camilleri

ABBREVIATIONS

AFS	available-for-sale
AICPA	American Institute of Certified Public Accountants
AML	anti-money laundering
ASC	Accounting Standards Codification
AUD	Australian dollar
AVCO	average weighted cost
BCBS	Basel Committee on Banking Supervision
BEPS	base erosion and profit shifting
bp	basis points
BSA	Bank Secrecy Act
CAD	Canadian dollar
CBOT	Chicago Board of Trade
CDD	customer due diligence
CFO	Chief Finance Officer
CFPB	Consumer Financial Protection Bureau
CFT	counter-terrorist financing
CHF	Swiss franc
CLO	collateralised loan obligations
Cr	credit
CRO	Chief Risk Officer
cum-div	cumulative dividend
cum-int	cumulative interest
DNFBP	designated non-financial businesses and professions
Dr	debit
EBIT	earnings before interest and tax
ECB	euro area treasury bills
EDD	enhanced due diligence

EMU	European Monetary Union
EOL	Enron Online
ER	effective interest rate
EU	European Union
Euribor	Euro Interbank Offered Rate
ex-div	excluding dividend
ex-int	excluding interest
FASB	Financial Accounting Standards Board
FATF	Financial Action Task Force
FDIC	Federal Deposit Insurance Corporation
FIFO	first-in-first-out
FinCEN	Financial Crimes Enforcement Network
FIU	Financial Intelligence Unit
FRS	Federal Reserve System
FSA	Financial Services Authority
FSB	Financial Stability Board
FVTPL	fair value through profit or loss
GAAP	US General Accepted Accounting Practices
GBP	pound sterling
GIGO	garbage-in garbage-out
HFT	held for trading
HTM	held-to-maturity
IAS	International Accounting Standards
IAS 19	Employee Benefits
IAS 27	Consolidated and Separate Financial Statements
IAS 28	Investments in Associates
IAS 31	Interests in Joint Ventures
IAS 32	Financial Instruments: Presentation
IAS 39	Financial Instruments: Recognition and Measurement
IASB	International Accounting Standards Board
ICT	Information Communications Technology
IFRS	International Financial Reporting Standards
IFRS 4	Insurance Contracts
IFRS 7	Financial Instruments: Disclosures
IFRS 9	Classification, measurement, de-recognition of financial assets/liabilities
IRR	internal rate of return
IRS	Internal Revenue Service
IVSC	International Valuation Standards Council
L & R	loans and receivables
LIBOR	London Interbank Offer Rate
ML	money laundering
MLCA	Money Laundering Control Act
MLSA	Money Laundering Suppression Act

MOU	Memorandum of Understanding
MVTS	money or value transfer services
NAV	net asset value
NCUA	National Credit Union Administration
NPV	net present value
NYSE	New York Stock Exchange
OCC	Office of the Comptroller of the Currency
OCI	other comprehensive income
OECD	Organisation for Economic Co-operation and Development
OSE	Osaka Stock Exchange
OTC	over-the-counter
P/E	price-earnings ratio
PEP	politically exposed person
PEST	political, economic, social and technological
Pr	probability
PV	present value
RA	Risk Analyst
ROCE	return on capital employed
ROE	return on equity
SAR	Suspicious Activity Report
SBSE	small business and self-employment
SEC	Securities and Exchange Commission
SIMEX	Singapore Money Exchange
SPE	special-purpose entity
SRO	self-regulatory organisation
STR	Suspicious Transaction Report
SWOT	strengths, weaknesses, opportunities and threats
TEGE	tax exempt and government entities
UK	United Kingdom
USA	United States of America
USD	US dollar

PART 1
Accounting fundamentals

The objective of this part is to set the scene and provide the fundamental accounting knowledge that a novice in financial services practice needs to master in the turbulent world of finance. There is an explanation of the accounting principles related to the documentation of business transactions and the classification of business activities, so that voluminous transactions may be presented in a concise and logical manner that enable them to be easily understood by the users of the financial reports.

This part will help the reader to understand the application of three important accounting concepts, namely the accounting process, the double entry bookkeeping method, and the relationship between the accounting financial statements. The accounting process consists of a series of steps that begins with a business transaction and ends with the closing of the accounts and the compilation of the financial statements. Since this process is repeated each reporting period, it is often referred to as the accounting cycle or bookkeeping cycle. The steps in the accounting process adhere to a number of rules and conventions that abide by the accepted accounting standards.

Understanding the relationship between the accounting process and the double-entry bookkeeping framework to obtain a holistic view of the accounting cycle becomes critical, because the financial statements generated by the accounting system provide the underlying information for analysing the financial position of an entity, including credit and equity analysis, and security valuation

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INTRODUCTION

> I never teach my pupils. I only attempt to provide the conditions in which they can learn.
>
> Albert Einstein
> Theoretical physicist and philosopher

This book is in response to a common criticism about the lack of a text that embraces the fundamental accounting concepts for those commencing their profession in financial services. The term financial services includes a wide spectrum of activities, such as commercial banking, corporate finance, financial planning, hedge funds, insurance, investment banking, money management, private equity and real estate. While these diverse financial services require different skills and talents, they all require a good understanding of accounting and written communication skills. The level of accounting knowledge does not need to be that of a professional accountant but must be sufficient for one to understand the rationale behind the various accounting entries and to critically analyse accounting numbers.

Book structure and contents

As the book title suggests, the objective of this text is to provide a fundamental knowledge base for those studying banking and finance or those who wish to make financial services, particularly banking and finance, their chosen career. Figure 1.1 illustrates that this book is divided into four related parts, comprising 12 chapters.

Part 1 – Accounting fundamentals

This part of the book consists of three chapters. These three chapters progressively build the readers' knowledge about the fundamental accounting principles. This first

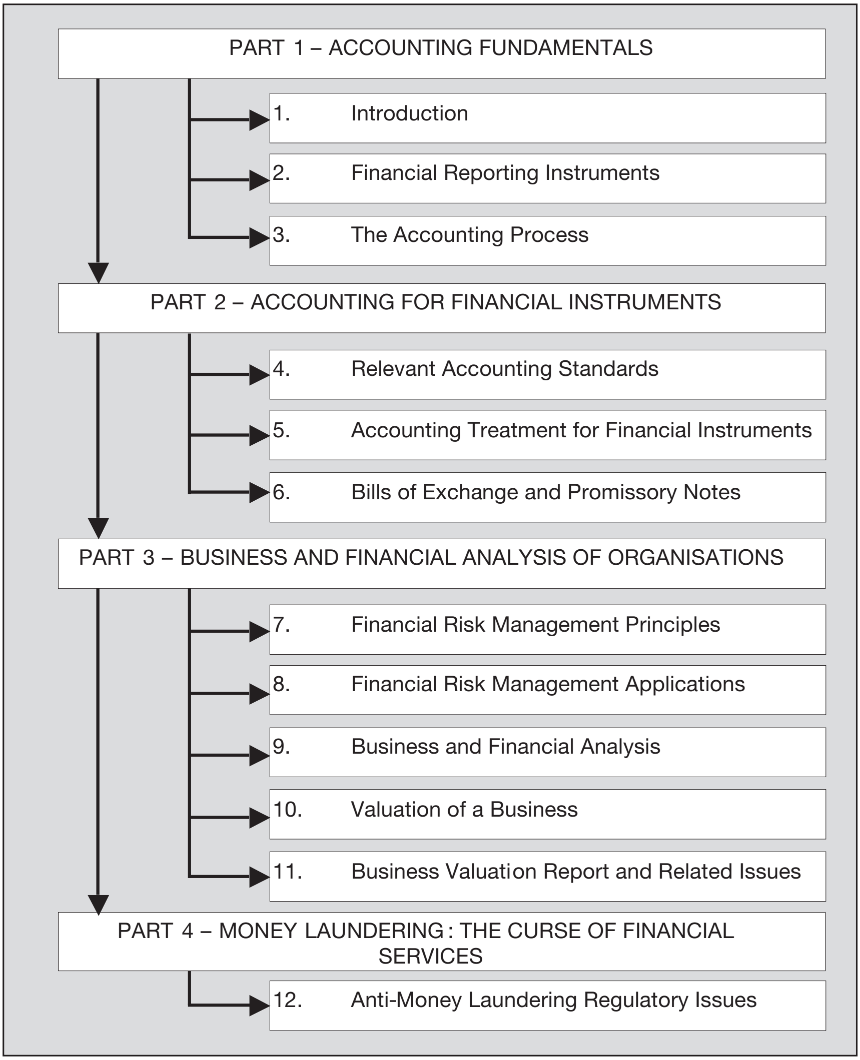

FIGURE 1.1 Book structure: accounting fundamentals for services practitioners

chapter presents a description of the general book structure. Chapter 2 provides a detailed explanation of the financial reporting instruments by presenting the applicable key accounting concepts. It provides a detailed discussion about the common classification of business activities, namely operational, financing and investment management. Chapter 2 also examines the typical accounts maintained by companies and the components of the key financial statements. This includes an explanation of the accounting equations related to the balance sheet, income statement and statement of retained earnings.

Chapter 3, which is the final chapter in Part 1, elaborates further on the accounting principles discussed in Chapter 2. Chapter 3 examines in detail the accounting process, which consists of eight major phases, starting with the initial business transactions and ending with the closing of the accounts and the compilation of the financial statements. The section dealing with the accounting process illustrates the double entry accounting method, which forms an essential basis for posting the accounting transactions into the various company accounts. Finally, Chapter 3 will illustrate the relationship between the financial statements. In other words, it shows how certain balance sheet items are related to the cash flow statement and the statement of owners' equity; and how the resultant net income (loss) from the income statement is related to the retained earnings in the statement of owners' equity. Therefore, these first three chapters provide the reader with a concise explanation of the accounting process and set the scene for the rest of the book. Most importantly, Part 1 provides the fundamental accounting knowledge that a novice in financial services practice needs to master in the turbulent world of finance.

Part 2 – Accounting for financial instruments

This part also consists of three chapters and will specifically focus on the accounting principles related to financial instruments, namely accounting for investments. Each chapter within this part will focus on an explicit accounting aspect. Chapter 4 focuses on the relevant accounting standards related to financial instruments. The International Financial Reporting Standards (IFRS) and US General Accepted Accounting Practices (GAAP) will be examined and discussed in the context of accounting for investments. The four most important IFRS accounting standards that will be closely examined include IAS 32 (Financial Instruments: Presentation); IAS 39 (Financial Instruments: Recognition and Measurement); IFRS 7 (Financial Instruments: Disclosures); and IFRS 9 (classification, measurement and de-recognition of financial assets and liabilities). The GAAP clauses will be discussed in relation to how they compare with the relevant IFRS standards. Chapter 4 identifies the important definitions related to financial instruments and addresses the issues regarding the implications of IAS 32 and IAS 39.

The discussion regarding IAS 32 will focus on a number of key issues, such as the distinction between a financial liability and equity and the determination of how equity shares are accounted for. IAS 39 focuses on the recognition and measurement of financial instruments and specifically addresses the way financial assets are classified and measured, such as, held-to-maturity (HTM) and loans and receivables that are both measured at amortised cost; fair value through profit or loss (FVTPL) and available-for-sale (AFS) both of which are measured at fair value. While FVTPL is measured at fair value through profit or loss, AFS is measured at fair value through equity. IAS 39 also provides a detailed definition of each financial instrument category and other useful definitions, such as fair value and amortisation. IFRS 9 is intended to replace IAS 39. In fact, a number of features related to IFRS 9 have already been implemented, namely the classification and measurement of financial assets and liabilities, and de-recognition of financial assets and liabilities.

Chapter 5 builds on the knowledge of the previous chapter and explicitly addresses the accounting treatment method for each financial instrument category that was identified when discussing the relevant accounting standards. Additionally, the accounting treatment discussion also provides an explanation of the difference in the accounting book entries for each type of financial instrument. Moreover, this chapter provides an explanation of important additional definitions in relation to purchasing and selling of financial instruments, namely, cumulative dividend investments and excluding dividend investments. Chapter 5 will examine the accounting implications when purchasing and selling financial instruments. Certain issues arise when financial instruments are purchased or sold at a date other than their maturity date.

Cumulative dividend or cumulative interest (cum-div or cum-int) means that a buyer of a security is entitled to receive a dividend or interest that has been declared, but not paid. This means that the security is offered for sale with an entitlement to the next dividend or interest payment attached. This dividend or interest will already have been declared (but not paid) by the company, so the market knows how much it is worth and the share (or bond) price will reflect this. Excluding dividend or excluding interest (ex-div or ex-int) means that the declared dividend or interest will be received by the seller and not the buyer. Hence, stock is given ex-div or ex-int status if an individual or entity has been confirmed by the company to receive the dividend or interest payment. The purchase of shares or bonds without entitlement to recently declared dividends means that the entitlement to receive a dividend or interest remains with the seller of the shares or bonds. Hence, both cum-div and ex-div may require accounting adjustment entries to reflect these specific phenomena. Finally, Chapter 5 will provide a number of practical examples to illustrate the key accounting for investments principles.

The final chapter in Part 2 focuses on bills of exchange and promissory notes. Bills of exchange and promissory notes are a very common variety of financial instruments and have their own particular characteristics. Chapter 6 explains the meaning and implications of bills of exchange and promissory notes and illustrates the particular accounting entries related to them. In addition, this chapter illustrates other important concepts, namely, the computation of the due date related to bills of exchange and promissory notes; and the accounting treatment for the collection and retirement of the bills of exchange and promissory notes.

Part 3 – Business and financial analysis of organisations

Part 3 consists of five chapters and is the nucleus of this book. Chapter 7 provides a very detailed description of financial risk management principles. Basically, financial risk management is the identification of what may go wrong and taking the appropriate action to mitigate the risk. Risk can be mitigated but it is difficult to eliminate completely. Financial risk management endeavours to foresee and deal with uncertainties that jeopardise the financial objectives of an enterprise. It is the practice of using financial instruments to manage the exposure to risk in terms of credit risk, market risk, foreign exchange risk and other risks associated with volatility, liquidity and inflation.

Risk may stem from events taking place across the globe that have nothing to do with the domestic markets and yet have a significant and immediate effect on domestic events. ICT has caused information to be available instantly, thus becoming a very swift change catalyst, with subsequent financial market reactions occurring rapidly. Examples of this are the immediate financial market reaction in Europe and the USA to the Asian financial crisis of 1997–1998 and the financial crisis of 2009–2010.

Financial markets are very sensitive and can be rapidly affected by fluctuations in exchange rates, interest rates and commodity prices. The financial markets' reaction to such changes can swiftly become problematic. Therefore, it is important that financial risks are identified, appraised and continuously managed. Financial risk management is a systematic process to identify, quantify, respond to, and monitor and control all types of financial risk. Furthermore, financial risk management can be qualitative and quantitative. Financial risk management focuses on when and how to hedge using financial instruments to manage harmful exposures to risk.

One should note that regulatory pressures from the Financial Accounting Standards Board (FASB), particularly the International the Financial Reporting Standards (IFRS) are setting in motion measures for better risk management. Under IFRS, entities are required to conduct some basic type of risk measurement in the disclosures section of the financial statements. For instance, both FASB (Section 7a) and IFRS-7 related to 'Quantitative and Qualitative Disclosures' maintain that the financial statements must explicitly state the potential impact of market movements companies are principally exposed to, that is 'Financial Instruments Disclosures: a requirement exists to calculate the potential impact of each market risk variable or conduct a value-at-risk analysis.' Hence, the thrust from the accounting regulatory bodies is compelling entities to find a methodology that is suitable for their resource capability and is supportive to the general risk management policy. In addition, the international banking sector as a rule applies the Basel Accords for tracking, reporting and exposing operational, credit and market risks.

Chapter 8 focuses on financial risk management applications. Therefore, the major issue that will be addressed is when to use financial risk management. Managers of all types of entities are confronted with many opportunities to create value for shareholders using financial risk management. The basic concept is to determine which risks are cheaper for the entity to manage than the shareholders. By and large, market risks that result in unique risks for the entity are the best candidates for financial risk management. An important source of financial risk are those risks arising from an entity's exposure to changes in market prices, such as interest rates, exchange rates and commodity prices. The major concern is to determine when to use financial risk management to mitigate the risks that specifically arise from the changes in interest rates, exchange rates and commodity prices. One should note that financial rates and prices are affected by a number of factors. Hence, it is essential to understand the factors that impact markets because these factors, in turn, impact the potential risk of an entity.

The focus of Chapter 9 is the analysis of the business concern. In the context of this chapter, the 'analysis of the business concern' means the examination and assessment of both the external and internal environment. The basic premise is that an organisation's business and financial performance is influenced by its internal and external environment. Hence, how the organisation responds to these environments (whether reactive or proactive) will determine its business and financial performance.

The analysis of an entity's external environment will look at all outside factors that may affect an organisation. These factors envelop an organisation and have a direct impact on its operational activities, strategic choices, and influence its opportunities and risks. On the other hand, the assessment of an entity's internal environment will principally concentrate on the analysis of the entity's financial statements based on ratio analysis. In other words, the analysis of the internal environment will apply ratio analysis to the financial statements to examine various elements, including liquidity, profitability, asset utilisation, investment, working capital management and capital structure. Chapter 9 presents an analytical framework, which illustrates that an organisation's performance is greatly influenced by the external and internal environments in which it exists.

The focus of Chapter 10 is the valuation of a business. There are many instances when an objective and accurate assessment of a company's value is required. Business valuation is a process and a set of procedures employed to approximate the economic value of an owner's interest in a business. Determining the business worth of an enterprise is not an easy matter. In fact, the correct process to conduct a valuation of a business takes a great deal of effort, planning and reflection. Additionally, it is difficult to determine the value of a business enterprise because there are no precise methods to do this. The term 'business value' means different things to different people. The tendency is for one party to a transaction to increase the value, and for the other to drive the price down.

The determination of the value of a business also depends on the valuation assumptions. For instance, a business owner may assume that a strong linkage between the business and its client base (i.e. goodwill) is worth a great deal. On the other hand, an investor may have the perception that the business value is entirely defined by its historic income stream. Therefore, it all depends on why the valuation is taking place and the circumstances the business is encountering. While there are somewhat straightforward approaches to value particular segments of the business, such as stock and fixed assets (e.g. land, machinery, equipment, etc.), there may be a significant intangible component that is difficult to value. These intangible components include 'goodwill', such as trademarks, a business client base and the reputation of the entity. It is these components that are extremely difficult to value, and in many cases, the value of a business will be based upon the eagerness of a potential buyer to acquire the business in question.

Chapter 10 will be focusing on a number of valuation methods that will be classified under two main categories, namely non-going concern (an entity that will not remain in business) and a going concern (an entity that will remain in business for the foreseeable future). There is only one method under the non-going concern category, namely the asset break-up approach. However, the going concern category contains a number of different valuation methods that are commonly used. These include:

- The asset approach, consisting of three techniques, namely book value, replacement cost, and book value plus goodwill;
- The yield basis, consisting of three techniques, namely earning yield, price-earnings ratio, and dividend yield);
- The economic value, namely the discounted cash flow technique.

Chapter 10 will examine the above valuation methods and explore how other factors may influence the value of a business at any given time. The final chapter within Part 3 is Chapter 11. Chapter 11 specifically addresses the issue of preparing the Business Valuation Report. The application of the analytical information that was the object of a number of previous chapters is the Business Valuation Report. It is therefore appropriate to have a chapter devoted to this aspect to provide the reader with a more comprehensive explanation of the format and contents of the Business Valuation Report using best practice criterion. One must recognise that businesses are being continually transacted, like every other commodity. Therefore, there are numerous situations when an objective and accurate assessment of a business's value is required. Moreover, the previous chapter focused on the procedures to establishing a simple but realistic process by which the value of a business may be determined. This chapter will take the topic of business valuation a step further. It will explain the format and content (i.e. presentation) of the Business Valuation Report based on best practice criterion.

Part 4 – Money laundering: the curse of financial services

Chapter 12 is the final chapter and is specifically about money laundering. As a concluding chapter about the accounting fundamentals for financial services, it is appropriate to focus on the regulatory provisions when dealing with investments. In earlier chapters when discussing accounting practices, certain accounting standards regarding investments were addressed in some detail. The business community in recent years has had to face an increasing number of regulations that require a formalised process that spans a wide spectrum of activities. This final chapter is related to the regulatory provisions when dealing with investments, specifically regarding anti-money laundering.

In this context, Chapter 12 has two important implications. First, the impact of enforceable regulatory measures affects every enterprise, irrespective of size. Second, this chapter examines contemporary regulatory issues, some of which are still under discussion, and will have a significant impact on enterprises in the future, suggesting that the topics covered are relatively new and are still evolving.

Accounting for Financial Instruments: A Guide to Valuation and Risk Management provides a sound knowledge base for those studying banking and finance or those who wish to make financial services, particularly banking and finance, their chosen career.

2

FINANCIAL REPORTING INSTRUMENTS

> Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.
>
> Albert Einstein
> Theoretical physicist and philosopher

The key objective of accounting is to provide financial information about any economic entity. This information is utilised by both internal and external stakeholders. Hence, the internal stakeholders, such as management, use the information as an aid to planning and controlling the various business activities of the organisation. Additionally, the external stakeholders, such as owners, investors, creditors and the general public as potential investors, use the information to assess the operating results and financial position of the entity.

A key function of accounting is recording what is taking place within the business enterprise. First, an enterprise needs a system of documenting the various business transactions that are continuously taking place. However, these transactions must be recorded in monetary terms. A business can be visualised as a collection of economic resources with specific objectives, usually defined within the business strategy. Thus, transactions are actually documenting how the economic resources of an organisation are being employed to promote the growth of the business enterprise.

Second, the transactions are usually classified into some logical order, depicting the business activities of the enterprise. Basic business activities include operations, financing and investment activities. Such a classification would help to reduce the voluminous amount of transactions detail into manageable decipherable information that can be understood and used by management. For example, transactions related to a company's financing activities provide information about how the entity is obtaining or repaying its capital.

Third, to be meaningful and helpful to the various stakeholders, the information that has been recorded and classified must be presented in a format that can be easily understood, typically referred to as financial statements. The normal financial statements prepared by companies are: statement of financial position (balance sheet); statement of comprehensive income (profit and loss statement); statement of changes in equity; and statement of cash flows. Additionally, these financial statements are customarily supported by notes to the financial statements; an explanation of financial policies; and management discussion and analysis.

The three stages described above are supported by an accounting process which consists of eight major phases, starting with a transaction and ending with the closing of the accounts and the compilation of the financial statements. Furthermore, as one may appreciate, accounting has evolved over several hundreds of years where rules, conventions and procedures have been documented into accepted accounting standards.

It must be emphasised that accounting is not just limited to generating business data. Accounting transforms business data into information which may be further analysed and interpreted. Thus, accounting embraces the data-information-knowledge-wisdom transformation process. The enterprise commences with the business transactions data. This data must be gathered and organised. The accounting transactions data is processed and transformed to accounting information through summarisation and analysis (that is, compiling of the financial statements and financial ratio analysis). This accounting information is transformed into knowledge by the process of amalgamating data and information for decision making through information interpretation and resultant decisions. Finally, an accumulation of knowledge becomes wisdom, which consists of lessons learnt from previous interpretation and resultant decisions over time. Wisdom deals with the future because it incorporates both vision and design. With wisdom, management can create the future, not just grasp the present and past.

Documenting business transactions

The volume of transactions that a business enterprise encounters in a financial year depends on the size of the entity and the nature of its business. Hence, an entity, such as a bank would handle millions of transactions while in a small business, such as a mechanic, these transactions may still run into the thousands. Whatever the magnitude of the business, the transactions must be carefully documented and recorded. Transactions may include cash deposits; cash and credit sales; procurement activities; staff appointments; staff salaries; adjustments; and many other types of activities that are related to the running of a business enterprise.

Documentation for these transactions normally requires that the records supporting a transaction contain the appropriate approval and authorisation. Moreover, the documentation must support the internal controls that are applicable for the specific transaction type within the organisation. The extent of transaction documentation depends on the accounting system implemented within the organisation.

Minimum documentation is required where the implemented system controls ensure the mitigation of errors. For instance, where transactions are reviewed and approved by someone other than the initiator before it is recorded in the accounting system. Minimum documentation is also required when the accounting system is self-documenting. For instance, a computer accounting systems may be designed to automatically record the transaction description, purpose and the identity of the transaction initiator. Hence, the transaction can be audited from the accounting system itself. However, a higher level of documentation is required for transactions that are of a significantly large value and the transaction is associated with a legally binding contract.

Classification of business activities

One should note that typically business transactions are all given the same accounting treatment. Combined with the fact that a business enterprise may have a huge number of transactions, this makes it difficult to comprehend the holistic accounting transaction information. Therefore, for financial reporting purposes, it is essential that transactions are classified into a small number of transaction categories to depict the business activities of the enterprise. This enables voluminous business transactions to be presented in a concise and logical manner so that they may be easily understood by the users of financial reports.

For financial reporting purposes, business activities may be classified into three key categories, namely operating, investing and financing activities. Operating activities consist of the routine business functions of the organisation. For example, a supermarket's key operational activities are to procure products at wholesale prices and selling these products at retail prices to the various customers; and a hair salon's primary operational activities are to provide the diverse services related to hair care. Investing activities are activities that are concerned with the purchase and sale of fixed assets (or long-term assets), such as property, plant and equipment; and financial instruments such as company shares and securities (bonds and debentures). Financing activities consist of activities associated with securing and paying back capital funding. For example, the issuance of common shares; taking out a bank loan; and issuing bonds.

This type of classification allows the user of financial information to understand how well the company is performing and to determine the profitable and not so profitable business lines. For instance, the generation of the entity's cash flow and resultant profit should mostly be triggered through its operating activities, because an entity's operating activities are viewed as the business's core activities.

Company accounts and key financial statement components

The compilation of financial statements is not the first step in the accounting process, but it is a suitable stage to commence the study of accounting. Financial statements provide a concise depiction of a company's financial position and profitability to management and other relevant stakeholders. In fact, the financial statements are the end product of the accounting process. Having a clear understanding of the financial statements allows one to comprehend the objective and importance of recording and classifying business transactions that were described previously.

Our focus will be limited to four key financial statements, namely the balance sheet (statement of financial position); the income statement; the statement of cash flows; and statement of owners' equity. By and large, the activities of an enterprise that result from the various business transactions are exhibited in a number of generalised categories within the financial statements. These generalised categories within the financial statements include:

- Assets. These represent the different types of economic resources owned or controlled by the business entity. Examples of asset accounts include cash, buildings, inventory, prepaid rent, goodwill, and accounts receivable.
- Liabilities. These correspond to the various types of economic obligations by a business entity, such as accounts payable, bank loan, bonds payable, and accrued interest.
- Owners' equity. This represents the residual equity of a business (after deducting from the assets all the liabilities) including retained earnings and appropriations.
- Revenues. These represent the company's gross earnings. In other words, they reflect the inflows of economic resources to the company. Common examples include sales, service revenue and interest income.
- Expenses. These represent the outflows of economic resources from the company or increases in the liabilities. They reflect the company's expenditures to enable it to operate, such as, electricity and water, rentals, depreciation, doubtful accounts, interest, and insurance.

Under US General Accepted Accounting Practices (GAAP), the financial statement components include assets, liabilities, owners' equity, revenue, expenses, gains and losses. On the other hand, the International Financial Reporting Standards (IFRS) make use of the term 'income' that includes both revenue and gains. For example, the sale of surplus office equipment for more than its cost is referred to as a gain rather than revenue. Similarly, a loss is analogous to an expense but it does not arise from the company's core business activities. For example, if the company sells its surplus office equipment for an amount which is less than its book value, a loss results because selling surplus equipment is not a primary activity for the firm. One should note that gains and losses may be considered part of operations or part of non-operating activities on the income statement. For example, a gain that results from an increase in the value of inventory would be considered as part of operations, whereas, sales of non-trading investments are viewed as non-operating activities.

Generally, business transactions are recorded on the various company accounts, which provide an individual record of any increase or decrease in a particular asset, liability, revenue or expense. The financial statements are compiled by making use of these accounts. It should be noted that there is no standard group of accounts applicable to all companies. The accounts that a particular company uses depends on its specific requirements and the accounting system adopted. The accounts that are used by a company are itemised and described in a chart of accounts. A chart of accounts is a list of the accounts used by a company to define each class of items for which money or the equivalent is spent or received. Hence, a chart of accounts is used to organise the finances of the company and to segregate assets, liabilities, revenue and expenditure so that these accounts may be utilised to compile the financial statements. Furthermore, the structure and headings of accounts should be established to assist in the consistent recording (posting) of transactions on the accounts.

The chart of accounts is typically designed to integrate with the predetermined classification of the financial statements components. Table 2.1 illustrates a simple chart of accounts. All business transactions would be posted to the appropriate account by using the account code. The compilation of the financial statements is made possible by displaying the various accounts within the appropriate account category. This makes it possible for the user of the financial statement to see a concise financial and income position of the entity without having to view the voluminous business transactions that are processed by the organisation.

In the financial statements, assets are divided into three key categories, namely current assets, fixed tangible assets and intangible assets. Current assets include asset items that can be converted to cash fairly quickly, such as inventories; trade and other receivables; and cash and cash equivalents. Inventories consist of products that are held by the entity to be sold to its various customers. Inventories act as a buffer to balance the demand and supply position over a time period. Accounts receivables (also known as trade receivables or debtors) are amounts that are owed to the entity by its customers. These normally result when customers buy from the company on credit or are amounts that may be due from suppliers due to returns of goods. Cash refers to cash in a bank account and cash-on-hand, such as petty cash and cash that have not been deposited in the bank. Cash equivalents are very liquid short-term investments that have a maturity period of 90 days or less.

Fixed tangible assets and intangible assets are designated as non-current assets. These types of assets tend to benefit the entity over a longer period of time, normally more than one year. Examples of fixed tangible assets include property (land and buildings), plant and equipment; while intangible assets include patents, goodwill, trademarks and brand names. Other tangible assets that are classified as non-current assets include investment property; and investments in joint ventures and associates, as well as investments in the securities of other companies.

Some accounts are used to offset other accounts, which are known as 'contra accounts'. A number of balance sheet items have corresponding contra accounts, with negative balances, that offset them. For example, accounts receivable which is an asset account, is used by companies to record the amounts that it is owed

TABLE 2.1 Sample chart of accounts

Account Category	Code	Account Title
Assets	1000	Cash and cash equivalents
	1010	Accounts receivable
	1020	Inventory
	1030	Prepayments
	1040	Property, plant, and equipment
	1050	Investment property
	1060	Intangible assets (patents, trademarks, goodwill)
	1070	Financial assets
	1080	Trading securities
	1090	Investment securities
Liabilities	2000	Accounts payable
	2010	Accrued liabilities
	2020	Financial liabilities
	2030	Current tax liabilities
	2040	Deferred tax liabilities
	2050	Reserves
	2060	Minority interest
	2070	Unearned revenue
	2080	Debt payable
	2090	Bonds payable
Owners' equity	3000	Common stock
	3010	Additional paid-in capital
	3020	Retained earnings
	3030	Other comprehensive income
Revenue	4000	Sales
	4010	Gains
	4020	Grants
	4030	Investment income
Expenses	5000	Cost of goods sold
	5010	Advertising
	5020	Rent
	5030	Utilities
	5040	Salaries
	5050	Payroll tax
	5060	Depreciation
	5070	Amortisation
	5080	Interest expense
	5090	Tax expense
	5095	Losses

by its customers when they purchase their goods and services on credit. Hence, sales made on credit are reflected in accounts receivable. However, a company often assumes that some accounts receivables will be uncollectible (customers will default in making payments for their purchases). Therefore, the company will record an estimate of the amount that may not be collected in an account called 'provision for bad debts'. Since the impact of the 'provision for bad debts' account is to reduce the balance of the company's accounts receivable, it is known as a contra asset account.

Any account that is offset or deducted from another account is called a contra account. Typical contra asset accounts include: (a) accumulated depreciation which is an offset to property, plant and equipment to reflect the amount of the cost of property, plant and equipment that has been allocated to current and preceding accounting periods; (b) sales returns and allowances which is an offset to revenue that reflects the cash refunds, credits on account and discounts from sales prices given to customers who purchased defective or unsatisfactory items; and (c) provision for bad debts which is an offset to accounts receivable for the amount of accounts receivable that are estimated to be uncollectible.

Fundamental accounting equation

The fundamental accounting equation which forms the basis of the balance sheet and the double entry bookkeeping system is: *Assets = Liabilities + Capital*, where capital represents owners' equity. The double entry bookkeeping method will be examined in detail later in this chapter. At this stage, it is sufficient to know that the double entry bookkeeping method is based on the simple concept that for each transaction, the total debits equal the total credits.

As previously explained, the balance sheet reflects the entity's statement of financial position at a specific moment in time. Hence, it shows all the entity's assets and the claims or entitlements on these assets. The claims on the assets refer to the liabilities and equity entitlements. Note that the liabilities are the various economic obligations due by the business entity, whereas equity represents the residual equity of a business (after deducting from the assets all the liabilities) including retained earnings and appropriations.

The concept of the owners' residual claim is reflected by making owners' equity the subject of the accounting equation, that is: *Owners' equity = Assets – Liabilities*. The terminology for owners' equity varies. Owners' equity may be referred to as capital, net worth, net book value, equity, stockholders' equity and shareholders' equity. The term used depends on the entity type. However, the basic equation remains the same. The resulting equation as consequence for making substitutions in the accounting equation is referred to as the expanded accounting equation, because it provides a breakdown of the equity component of the equation. For example, owners' equity consists of capital contributed by owners and earnings retained in the business up to a particular date. Hence, owners' equity is presented by the following equation: *Owners' equity = Contributed capital + Retained earnings*. Therefore, the accounting equation is now: *Assets = Liabilities + Contributed capital + Retained earnings*. Note that contributed capital may also be known as common stock. This formula indicates the fundamental source of owners' equity and manifests the basic principles of accounting. Note that convention depicts the owners' equity segment of a company's balance sheet as also consisting of treasury stock and other comprehensive income. Treasury stock occurs when an entity acquires and holds its own stock. Other comprehensive income includes income that is not reported on the income statement, for example