Corporate and Investment Banking
Corporate and Investment Banking
Module Introduction and Overview

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1 Introduction to the Module

This module on Corporate and Investment Banking has three main aims, to:

1. examine the financial needs of companies in relation to corporate and investment banking
2. illustrate the financial services provided by corporate and investment banks and how they support companies in their business
3. analyse the structure and management of corporate and investment banks.

The module examines corporate and investment banking from the point of view of companies that require financial support, and from the perspective of the banks that provide financial solutions. In this way you will develop a broader understanding of how corporate and investment banks operate, the factors that drive the demand for their services, how banks respond to the needs of clients, and how banks develop and maintain their competitiveness.

During the module you will address the main areas of business in corporate and investment banking, combining the general principles of corporate and investment banking and the study of best practice by the leading banks. For example, in Unit 3 you will consider money management: in this unit you will analyse the functioning of a company to understand where the financial requirements related to money management originate; and you will learn about the products and techniques that corporate and investment banks offer to meet these demands. Similarly in Unit 7 you will study initial public offerings, and you will discuss the advantages and disadvantages of going public from the firm’s point of view, and you will analyse how to plan for an IPO from the investment bank’s perspective.

The role of financial management in non-financial firms is sometimes underestimated. If a company does not give adequate attention to financial management, this can lead to problems that can seriously affect the performance of the business. Inappropriate or uninformed financial decisions can compromise the performance of a company by increasing costs, decreasing revenues, or jeopardising the functioning of the business. For example, a company could be obtaining finance at a cost that is too high and which could be reduced; the company might be using too much leverage, with implications for the perceived risk of the company and its cost of capital; or a company could be managing risk inefficiently.

For a bank to provide useful financial solutions for companies it is essential for the bank to have a good understanding of how the company operates. In addition, banks develop a broad and deep understanding of how financial markets operate, and will have experience of working with a large number of companies. This wide experience is useful in developing products and providing services for each client. For example, the knowledge of cash management techniques can improve the performance of companies that do their business in different countries, by reducing the number of currency trades. Banks will also be aware of what type and maturity of securities are preferred by investors and financial markets at a particular time: this can increase the chances of a company obtaining adequate finance and at the lowest cost.
The module highlights the differences between various banking businesses. For example, a retail bank operates in a very different way to an investment bank: the way in which they fund their operations is different, they provide different services, and they work with different kinds of customers.

As you study the main areas of business in corporate and investment banking you will develop an understanding of how the banks operate, how their services and advice can be of benefit to their clients, and the impact of corporate and investment banking on the wider economy.

A good understanding of the main areas of business of corporate and investment banks, and of the financial services they provide, has wide relevance and application. It is essential for anyone working or intending to work in a corporate bank or an investment bank. It is also important that regulators and policymakers have a deep understanding of corporate and investment banking. For example, regulation is intended to ensure that banking and financial markets are stable, but it should also take into consideration the contribution that corporate and investment banks make to business performance and to economic growth and development. This is especially important given the increasing sophistication of financial products, and the growing interrelationships between markets.

2 The Module Authors

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Antonio Meles is Associate Professor of Finance at University of Campania ‘Luigi Vanvitelli’. His research interests focus on private equity financing, IPOs, bank-firm relationships and corporate governance. He is a member of ADEIMF, the Italian Association of Scholars of Banking and Finance and FINEST, the Financial Intermediation Network of European Studies. His work has been published in international academic journals such as the Journal of Corporate Finance, Journal of Financial Research, International Review of Finance and Applied Financial Economics.

Jonathan Simms is a tutor for CeFiMS, and has taught at Manchester Business School, University of Manchester, University of Durham and University of London. Dr Simms has contributed to development of various CeFiMS modules including Risk Management: Principles and Applications,
3 Study Materials

The materials provided for this module comprise the Study Guide, presented in eight units of text covering different topics. The module units introduce and explain the core elements of corporate and investment banking, and analyse the various financial products and financial services used in corporate and investment banking. The units are designed in the expectation that you will devote about 15–20 hours to studying each topic, including all the associated readings. The study resources used to develop the topics comprise a book of readings and a textbook.

📚 Textbook

The textbook for this module is:


The textbook by Glen Arnold offers a comprehensive analysis of the banking industry. We will use several chapters of this book, and most of the units will refer to at least one chapter. What makes this book fit well with the module is the ability to analyse single topics in detail, without losing the big picture of the whole banking industry. With the readings from the textbook you will be able to learn about single elements of corporate and investment banking and, at the same time, compare these activities with other areas of banking. The textbook provides very useful explanation and application of the methods used in corporate and investment banking, and also gives a wide-ranging overview of recent and ongoing developments in the banking sector.

Module Reader

We also provide you with academic articles, papers and reports, which are assigned as core readings in the Study Guide. They make up a Module Reader. You are expected to read them as an essential part of the module. We have selected articles and reports which reinforce your understanding of the material in the Study Guide and textbooks, and which also demonstrate how the contents you are studying are applicable and relevant in the corporate and investment banking markets. You will also see that some of the module units refer you to a number of references online which you may find useful in giving these topics an extra dimension.

Study Advice

When you study each unit, it is essential that you:

- read the module units when you approach the topic
- study the relevant sections of the textbook
- read the articles provided in the Module Reader and on the Internet.
You must read and think about the textbook chapters and articles from the Module Reader you are asked to read at the points indicated. It is important that you understand each topic well, before moving on to the next one. The material presented in the module follows a logical sequence, and you will find it difficult to understand the later topics if you do not fully understand the previous ones.

4 Module Overview

Unit 1 The Role of Banks in Corporate Business
1.1 Introduction
1.2 What is Banking?
1.3 Retail banking, Corporate banking and Investment Banking
1.4 The Demand for Corporate and Investment Banking
1.5 Conclusion

Unit 2 Corporate Banking: Lending
2.1 Introduction
2.2 Equity, Debt, and the use of Leverage
2.3 Optimising Capital Structure
2.4 Capital Raising: Debt and Bonds
2.5 Corporate Banking and Credit Risk Assessment
2.6 Conclusion

Unit 3 Money and Financial Management
3.1 Introduction
3.2 Production Cycles, Working Capital and Financial Management
3.3 Financial Solutions for Working Capital and Money Management
3.4 Domestic and Cross-border Payments
3.5 Cash Management and Clearing Strategies in Multinational Firms
3.6 Conclusion

Unit 4 International Banking
4.1 Introduction
4.2 Banking across Borders
4.3 National Banking Systems
4.4 Global Players in Corporate and Investment Banking
4.5 Corporate and Investment Banking: Performance and Market Share
4.6 Conclusion

Unit 5 Risk Management
5.1 Introduction
5.2 Risk Management in the Financial Sector
5.3 Main Risk Types
5.4 Economic and Available Capital
5.5 Derivatives Contracts
5.6 Conclusion
Unit 6 Structured Finance
6.1 Introduction
6.2 Structured Finance: Credit and Capital Market Convergence
6.3 Securitisation: From Originating-to-hold to Originating-to-distribute
6.4 Credit Derivatives
6.5 Project Finance
6.6 Mezzanine Finance
6.7 Conclusion

Unit 7 IPOs, Listing services and Underwriting syndicate
7.1 Introduction
7.2 Going Public: Why, When and Where?
7.3 What Should a Firm’s CEO and its Shareholders know before Going Public?
7.4 The Key Steps of the Listing Process
7.5 The Structure and Role of IPO Underwriting Syndicates
7.6 Assessing the Success of an IPO: the Cases of Facebook and Twitter
7.7 Conclusion

Unit 8 M&A, Private equity and Venture Capital
8.1 Introduction
8.2 Private Equity Investments: Definition, Classification and Types of Firms
8.3 The Private Equity Business Model
8.4 Mergers and Acquisitions
8.5 The Role of Investment Banks in Mergers and Acquisitions
8.6 Conclusion

5 Learning Outcomes

When you have completed this module, you will be able to:

- explain the core elements of corporate and investment banking services, and how these support non-financial firms
- discuss the roles that corporate and investment banks play in the fundraising process of a company
- assess the quality of the capital structure of a company, and discuss a variety of credit solutions
- analyse working capital, money management, and money management strategies
- assess the factors that drive the internationalisation of banking
- discuss the organisation, financial strategy and performance of the largest corporate and investment banks
- discuss the main sources of risk in the financial sector
- explain and develop risk management strategies using simple derivative contracts
- analyse and assess structured finance, including securitisation, credit derivatives, project finance, and mezzanine finance
- explain the steps in an initial public offering, IPO pricing, and the role played by the IPO underwriting syndicate
- discuss the key characteristics of private equity investments
- examine the role of investment banks in mergers and acquisitions.
6 Assessment

Your performance on each module is assessed through two written assignments and one examination. The assignments are written after Unit 4 and Unit 8 of the module session. Please see the VLE for submission deadlines. The examination is taken at a local examination centre in September/October.

Preparing for assignments and exams

There is good advice on preparing for assignments and exams and writing them in Chapter 8 of Studying at a Distance by Christine Talbot. We recommend that you follow this advice.

The examinations you will sit are designed to evaluate your knowledge and skills in the subjects you have studied: they are not designed to trick you. If you have studied the module thoroughly, you will pass the exam.

Understanding assessment questions

Examination and assignment questions are set to test your knowledge and skills. Sometimes a question will contain more than one part, each part testing a different aspect of your skills and knowledge. You need to spot the key words to know what is being asked of you. Here we categorise the types of things that are asked for in assignments and exams, and the words used. All the examples are from the Centre for Financial and Management Studies examination papers and assignment questions.

Definitions

Some questions mainly require you to show that you have learned some concepts, by setting out their precise meanings. Such questions are likely to be preliminary and be supplemented by more analytical questions. Generally, ‘Pass marks’ are awarded if the answer only contains definitions. They will contain words such as:

- Describe
- Define
- Examine
- Distinguish between
- Compare
- Contrast
- Write notes on
- Outline
- What is meant by
- List

Reasoning

Other questions are designed to test your reasoning, by explaining cause and effect. Convincing explanations generally carry additional marks to basic definitions. They will include words such as:

- Interpret
- Explain
- What conditions influence
- What are the consequences of
- What are the implications of
Judgement

Others ask you to make a judgement, perhaps of a policy or of a course of action. They will include words like:

- Evaluate
- Critically examine
- Assess
- Do you agree that
- To what extent does

Calculation

Sometimes, you are asked to make a calculation, using a specified technique, where the question begins:

- Use indifference curve analysis to
- Using any economic model you know
- Calculate the standard deviation
- Test whether

It is most likely that questions that ask you to make a calculation will also ask for an application of the result, or an interpretation.

Advice

Other questions ask you to provide advice in a particular situation. This applies to law questions and to policy papers where advice is asked in relation to a policy problem. Your advice should be based on relevant law, principles and evidence of what actions are likely to be effective. The questions may begin:

- Advise
- Provide advice on
- Explain how you would advise

Critique

In many cases the question will include the word ‘critically’. This means that you are expected to look at the question from at least two points of view, offering a critique of each view and your judgement. You are expected to be critical of what you have read.

The questions may begin:

- Critically analyse
- Critically consider
- Critically assess
- Critically discuss the argument that

Examine by argument

Questions that begin with ‘discuss’ are similar – they ask you to examine by argument, to debate and give reasons for and against a variety of options, for example

- Discuss the advantages and disadvantages of
- Discuss this statement
- Discuss the view that
- Discuss the arguments and debates concerning
The grading scheme: Assignments

The assignment questions contain fairly detailed guidance about what is required. All assignments are marked using marking guidelines. When you receive your grade it is accompanied by comments on your paper, including advice about how you might improve, and any clarifications about matters you may not have understood. These comments are designed to help you master the subject and to improve your skills as you progress through your programme.

Postgraduate assignment marking criteria

The marking criteria for your programme draws upon these minimum core criteria, which are applicable to the assessment of all assignments:

- understanding of the subject
- utilisation of proper academic [or other] style (e.g. citation of references, or use of proper legal style for court reports, etc.)
- relevance of material selected and of the arguments proposed
- planning and organisation
- logical coherence
- critical evaluation
- comprehensiveness of research
- evidence of synthesis
- innovation/creativity/originality.

The language used must be of a sufficient standard to permit assessment of these.

The guidelines below reflect the standards of work expected at postgraduate level. All assessed work is marked by your Tutor or a member of academic staff, and a sample is then moderated by another member of academic staff. Any assignment may be made available to the external examiner(s).

80+ (Distinction). A mark of 80+ will fulfil the following criteria:

- very significant ability to plan, organise and execute independently a research project or coursework assignment
- very significant ability to evaluate literature and theory critically and make informed judgements
- very high levels of creativity, originality and independence of thought
- very significant ability to evaluate critically existing methodologies and suggest new approaches to current research or professional practice
- very significant ability to analyse data critically
- outstanding levels of accuracy, technical competence, organisation, expression.

70–79 (Distinction). A mark in the range 70–79 will fulfil the following criteria:

- significant ability to plan, organise and execute independently a research project or coursework assignment
- clear evidence of wide and relevant reading, referencing and an engagement with the conceptual issues
- capacity to develop a sophisticated and intelligent argument
• rigorous use and a sophisticated understanding of relevant source materials, balancing appropriately between factual detail and key theoretical issues. Materials are evaluated directly and their assumptions and arguments challenged and/or appraised
• correct referencing
• significant ability to analyse data critically
• original thinking and a willingness to take risks.

60–69 (Merit). A mark in the 60–69 range will fulfil the following criteria:
• ability to plan, organise and execute independently a research project or coursework assignment
• strong evidence of critical insight and thinking
• a detailed understanding of the major factual and/or theoretical issues and directly engages with the relevant literature on the topic
• clear evidence of planning and appropriate choice of sources and methodology with correct referencing
• ability to analyse data critically
• capacity to develop a focussed and clear argument and articulate clearly and convincingly a sustained train of logical thought.

50–59 (Pass). A mark in the range 50–59 will fulfil the following criteria:
• ability to plan, organise and execute a research project or coursework assignment
• a reasonable understanding of the major factual and/or theoretical issues involved
• evidence of some knowledge of the literature with correct referencing
• ability to analyse data
• examples of a clear train of thought or argument
• the text is introduced and concludes appropriately.

40–49 (Fail). A Fail will be awarded in cases in which there is:
• limited ability to plan, organise and execute a research project or coursework assignment
• some awareness and understanding of the literature and of factual or theoretical issues, but with little development
• limited ability to analyse data
• incomplete referencing
• limited ability to present a clear and coherent argument.

20–39 (Fail). A Fail will be awarded in cases in which there is:
• very limited ability to plan, organise and execute a research project or coursework assignment
• failure to develop a coherent argument that relates to the research project or assignment
• no engagement with the relevant literature or demonstrable knowledge of the key issues
• incomplete referencing
• clear conceptual or factual errors or misunderstandings
• only fragmentary evidence of critical thought or data analysis.
0–19 (Fail). A Fail will be awarded in cases in which there is:

- no demonstrable ability to plan, organise and execute a research project or coursework assignment
- little or no knowledge or understanding related to the research project or assignment
- little or no knowledge of the relevant literature
- major errors in referencing
- no evidence of critical thought or data analysis
- incoherent argument.

The grading scheme: Examinations

The written examinations are ‘unseen’ (you will only see the paper in the exam centre) and written by hand, over a three-hour period. We advise that you practise writing exams in these conditions as part of your examination preparation, as it is not something you would normally do.

You are not allowed to take in books or notes to the exam room. This means that you need to revise thoroughly in preparation for each exam. This is especially important if you have completed the module in the early part of the year, or in a previous year.

Details of the general definitions of what is expected in order to obtain a particular grade are shown below. These guidelines take account of the fact that examination conditions are less conducive to polished work than the conditions in which you write your assignments. Note that as the criteria of each grade rises, it accumulates the elements of the grade below. Assignments awarded better marks will therefore have become comprehensive in both their depth of core skills and advanced skills.

Postgraduate unseen written examinations marking criteria

80+ (Distinction). A mark of 80+ will fulfil the following criteria:

- very significant ability to evaluate literature and theory critically and make informed judgements
- very high levels of creativity, originality and independence of thought
- outstanding levels of accuracy, technical competence, organisation, expression
- outstanding ability of synthesis under exam pressure.

70–79 (Distinction). A mark in the 70–79 range will fulfil the following criteria:

- clear evidence of wide and relevant reading and an engagement with the conceptual issues
- develops a sophisticated and intelligent argument
- rigorous use and a sophisticated understanding of relevant source materials, balancing appropriately between factual detail and key theoretical issues
- direct evaluation of materials and their assumptions and arguments challenged and/or appraised;
- original thinking and a willingness to take risks
- significant ability of synthesis under exam pressure.
60–69 (Merit). A mark in the 60–69 range will fulfil the following criteria:

- strong evidence of critical insight and critical thinking
- a detailed understanding of the major factual and/or theoretical issues and directly engages with the relevant literature on the topic
- develops a focused and clear argument and articulates clearly and convincingly a sustained train of logical thought
- clear evidence of planning and appropriate choice of sources and methodology, and ability of synthesis under exam pressure.

50–59 (Pass). A mark in the 50–59 range will fulfil the following criteria:

- a reasonable understanding of the major factual and/or theoretical issues involved
- evidence of planning and selection from appropriate sources
- some demonstrable knowledge of the literature
- the text shows, in places, examples of a clear train of thought or argument
- the text is introduced and concludes appropriately.

40–49 (Fail). A Fail will be awarded in cases in which:

- there is some awareness and understanding of the factual or theoretical issues, but with little development
- misunderstandings are evident
- there is some evidence of planning, although irrelevant/unrelated material or arguments are included.

20–39 (Fail). A Fail will be awarded in cases which:

- fail to answer the question or to develop an argument that relates to the question set
- do not engage with the relevant literature or demonstrate a knowledge of the key issues
- contain clear conceptual or factual errors or misunderstandings.

0–19 (Fail). A Fail will be awarded in cases which:

- show no knowledge or understanding related to the question set
Specimen exam papers

CeFiMS does not provide past papers or model answers to papers. Modules are continuously updated, and past papers will not be a reliable guide to current and future examinations. The specimen exam paper is designed to be relevant and to reflect the exam that will be set on this module.

Your final examination will have the same structure and style and the range of question will be comparable to those in the Specimen Exam. The number of questions will be the same, but the wording and the requirements of each question will be different.

Good luck on your final examination.

Further information

Online you will find documentation and information on each year’s examination registration and administration process. If you still have questions, both academics and administrators are available to answer queries.

The Regulations are also available at www.cefims.ac.uk/regulations/, setting out the rules by which exams are governed.
UNIVERSITY OF LONDON

CENTRE FOR FINANCIAL AND MANAGEMENT STUDIES

MSc Examination
Postgraduate Diploma Examination
for External Students

FINANCE (BANKING)

Corporate and Investment Banking

Specimen Examination

This is a specimen examination paper designed to show you the type of examination you will have at the end of Corporate and Investment Banking. The number of questions required and the structure of the examination will be the same, but the wording and requirements of each question will be different.

The examination must be completed in THREE hours. Answer THREE questions, at least ONE question from EACH section.

The examiners give equal weight to each question; therefore, you are advised to distribute your time approximately equally between three questions. The examiners wish to see evidence of your ability to understand theoretical principles and your ability to critically discuss their application.

PLEASE TURN OVER
Section A

Answer at least ONE question from this section.

1. Distinguish between the fixed capital and the working capital of a non-financial company, and explain the role of corporate and investment banking in the management of fixed capital and working capital for clients.

2. Discuss the advantages and the disadvantages of the use of leverage in a non-financial firm, explain how increasing leverage can increase the cost of capital for a company, and describe strategies that a corporate bank or an investment bank can propose in relation to the leverage of a non-financial company.

3. Assess how each of the following financial products can be used to satisfy the financial needs related to the working capital of a company:
   a) Invoice discounting
   b) Commercial paper
   c) Overdraft

4. In relation to the organisational structure of Barclays and Goldman Sachs, evaluate the similarities and the differences between the two banks.

Section B

Answer at least ONE question from this section.

5. Discuss the methods used by banks to estimate their a) interest rate risk, and b) economic capital

6. Assess the roles of investment banks in project finance.

7. Discuss the advantages and the disadvantages of going public via an initial public offering.

8. Describe the functioning of a private equity investment process, and explain in detail the steps involved.

[END OF EXAMINATION]
Corporate and Investment Banking

Unit 1  The Role of Banks in Corporate Business

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Unit Overview

Unit 1 identifies the differences between corporate and investment banking (CIB) and other areas of the banking business. It will consider a basic definition of banking, and then provide a clear outline of banking businesses, highlighting elements of CIB, and stressing the similarities and differences between various business models in banking.

In addition, the unit examines CIB from the point of view of commercial non-financial companies. By examining how non-financial firms operate we can identify their requirements concerning finance, advice and guidance, and therefore we can better understand the demand for the services provided by corporate and investment banks. The analysis stresses the differences between economic needs and financial needs, and introduces key concepts such as fixed capital and working capital. This framework will be helpful for your study of the other units in this module.

Learning outcomes

When you have completed your study of this unit and its readings, you will be able to:

- recognise and explain the differences between corporate and investment banking and other areas of banking
- examine the origin of the financial requirements of companies, and how this relates to the demand for corporate and investment banking services
- explain the role of banks in supporting non-financial firms.

Reading for Unit 1

Textbook

Module Reader

Online
You will also access the websites of various corporate and investment banks, and analyse financial reports for a bank and a non-bank company. Details are provided in the unit.
1.1 Introduction

In this introduction we will briefly set out what we mean by the various business models appropriate to banking, including retail banking, commercial banking, investment banking, and universal banking, and we will define what is meant by corporate and investment banking. We will also consider the sources of demand for the services of corporate and investment banks, and place this module in context.

1.1.1 Corporate and investment banking

Corporate and investment banking (CIB) is one of the main areas of business in banking. What makes CIB different from other areas of banking are the clients and the size of the transactions. CIB offers financial solutions to large companies and to high net-worth individuals dealing with large transactions. In contrast, we can consider retail banking (RB), where the typical customers are families and small firms, and the size of transactions are much smaller than those undertaken in CIB. The distinction between CIB and RB becomes even more evident if we refer to the transaction size aspect of CIB as ‘wholesale banking’ (WB). Wholesale banking itself does not differ from CIB, because it involves the same set of financial services and the same target customers, but the word ‘wholesale’ stresses the contrast with ‘retail’ banking, referring to the different sizes of the transactions.

The distinction between wholesale and retail banking is not the only one in banking. If we separate investment banking from corporate banking (CB), and combine CB with retail banking, we call this particular aggregate ‘Commercial banking’. If we make this separation, we can see that investment banking will focus on market activities (e.g. security trading, brokerage, etc.) and providing financial advice (e.g. initial public offerings, risk management, etc.); and then corporate banking refers to addressing the financial needs of large companies (e.g. foreign exchange risk management, overseas trades, etc.).

The rationale behind the inclusion of corporate banking and retail banking in the one category of bank is to be able to offer (in both cases) financial services relating to the basics of the banking business: deposit-taking, lending, and money management facilities. Clients need the facility to save (e.g. make deposits), to borrow (e.g. take out loans) and to facilitate payments (e.g. cheques, bank transfer, etc.), and this exists whether it is corporate banking or retail banking (which together represent commercial banking). The word ‘commercial’ reminds us that the essential aspect of this area of banking is related to the trade or the ‘commerce’ of money (e.g. to take in money in the form of deposits, to make money available in the form of lending, and to transfer money using the various payment mechanisms).

To recap and summarise, the banking industry involves:

- retail banks, which deal with families and small firms;
- corporate banks, which work with large companies; and
- investment banks, which offer financial advice and financial services, and intermediate between companies and financial markets.
Please take a moment to consider this distinction between corporate banks and investment banks. In most cases the same financial institution will be active in both of these two areas of banking. In which case we can consider corporate and investment banking as a single and distinctive area of banking business.

Finally, we also need to consider what is termed ‘universal banking’. Diversification of operations can bring benefits to a bank, and universal banks have developed to take advantage of this. Within this business model the same financial institution is active at the same time in all the areas of banking (retail, commercial and investment banking).

### 1.1.2 The demand for corporate and investment banking services

In this module you will build up an understanding of the financial products and services that corporate and investment banks develop and provide. To do this, we will start from an analysis of the financial needs of the companies that are the banks’ clients. Corporate and investment banks are called upon to support companies in their operation and business, so a bank cannot ignore how a client’s business functions. It is from this knowledge that a bank has the chance to develop financial products and services that fit well with the financial needs of each company. If you also keep in mind that the performance and success of a bank depends on the quality of its financial products and services, then you can see why we need to examine banking from the point of view of the companies who use those services.

Later in this unit you will observe how the production cycle of a commercial company tends to generate financial needs (e.g. capital raising, payments, etc.). You will also differentiate between the economic needs and financial needs of companies. To understand the differences between various financial products commonly used in CIB, you will learn about the importance of fixed capital and working capital. You will analyse these financial products in the following units of the module.

### 1.1.3 Corporate and investment banking and the economy

Of course, when we analyse CIB from the perspective of firms, we cannot ignore the banks’ point of view, and that will be part of the explanation. In fact, analysing CIB from the firms’ side gives us the chance to assess the role of banks in the financial system from a broader perspective than if we analysed that role from the banks’ side only. In this way you will see how banks, as part of the financial system, support the economic development of a country, by providing financial solutions that satisfy the needs of economic agents such as companies and governments.

However, you should be aware it is possible to examine the role of banks from a variety of other perspectives. Banks also have a macroeconomic role. They match the supply and demand for loanable funds (saving and investments). Banks also enable the monetary policy transmission mechanism to operate, so that policy changes made by the central bank and monetary authorities can be transmitted through money markets, short- and long-term interest rates, and can ultimately influence the decisions made by companies and households. And banks have a microeconomic role, overcoming infor-
information asymmetries between those who want to borrow funds to invest and those lending the funds: without banks to act as intermediaries, the contractual environment in which borrowers and lenders operate may be less efficient due to agency problems, where the interests of the borrowers and lenders are not aligned. Other CeFiMS modules provide the opportunity to study the macroeconomic role and the microeconomic role of banks.

According to this setting, the rest of the unit is structured as follows. The next section asks the question, what is banking? You will then analyse the different areas of banking and the different banking models; and you will study the core elements of CIB that make it different from other areas of banking. You will analyse the demand for CIB services by studying the functioning of commercial business. This will require you to explore the parts of a business from which the demand originates for finance and financial services, and we will propose a classification of these requirements.

1.2 What is Banking?

In order to understand how banks can support companies in their businesses, it is essential to have a clear understanding of the banking business model and the differences between different kinds of banks. As you saw in the introduction of this unit, banks can be categorised in different ways. We can refer to a bank as a retail bank, a wholesale bank, a commercial bank, an investment bank, a universal bank, etc. Even if all of them are known as ‘banks’, what they do can be extremely different, so we have to start from a clear definition of banking. After we have stressed the core concepts of banking, we will be able to analyse the different kinds of banks and understand what role these banks can play in supporting a company, with particular reference to corporate and investment banks. We can refer to banking as the business conducted or services offered by a bank (Oxford Dictionary, 2016), or the business of operating a bank (Cambridge Dictionary, 2016).

These quite simple and short definitions highlight how the banking business is related to banks, but do not provide additional information about the specific operations of banking. The reason behind these general definitions is that a bank can be involved in a wide range of different activities that, even if they are all related to money, cannot be summarised in a single comprehensive definition.

What banks do nowadays is the result of an evolution of the banking business over centuries, where banks evolved following the changing economic needs of individuals, firms, governments and other economic agents. The following reading ‘What is banking?’ describes the role of banking in supporting the functioning of the economic system. The chapter from your textbook stresses how banks are necessary in a modern society, and how the banking business evolved from a pure monetary business, where people deposit their money in order to keep it safe, to a business that includes lending and investing, where financial intermediaries increase the efficiency of the financial system.
You will already be familiar with one or more banks, as a user of retail banking services, or as part of your work, and you will already have an idea of the kind of services banks provide. However, to fully understand the role of banks, and in particular corporate and investment banks, it will be useful to begin by studying the core principles and development of banking, which are presented in this reading.

Reading


As you have seen in the reading, banks became established to provide money storage services, so that people could deposit their coins in a bank to avoid the risk of theft. From this, banking developed with the issue of paper notes, which represented the value deposited in the bank. This evolution continued with lending services: banks expect only a small part of deposits will be required by clients at any point in time, so banks lend money from the deposits, using the stock of money to generate additional income. In their lending operations, banks have some objective advantages, compared to a situation where savers lend directly to people who would like to borrow money. If savers attempt to lend directly, and look for a direct counterparty who requires a loan, there are search costs, agreement costs, and monitoring costs. Savers avoid these costs if they deposit their money with a bank.

You have also read how banks and other financial intermediaries are able to match the preferences of primary investors (who require high liquidity, low risk, and transact in small amounts), with the preferences of borrowers (loans for business have low liquidity, high risk and usually involve large amounts). Banks are able to provide this transformation of maturity, risk, and volume.

Review Question

One of the additional arguments that supports the role of banking is the opportunity for banks to achieve economies of scale. Can you summarise in a brief statement what kind of economies of scale exist in banking?

In this section you have seen how banks represent an essential and useful part of the financial system: banks allow depositors to (indirectly) invest their savings, and banks facilitate those who want to borrow to find a counterparty, either indirectly through the process of intermediation and transformation, or directly via brokerage. In the next section you will analyse the differences between the various bank business models, and categorise banks so that you can focus on corporate and investment banking.
1.3 Retail Banking, Corporate Banking and Investment Banking

This section will define the areas of activity associated with the three bank business models: retail banking, corporate banking, and investment banking. You will also examine a number of banks and assess which banking model most closely applies in each case.

1.3.1 Defining retail, corporate, and investment banking

The core of banking business is the holding of deposits and using these deposits for issuing loans. These two activities, together with the provision of payment facilities, represent the essence of any retail bank.

**Definition**

Retail banking is the complex of banking activities related to retail customers (e.g. individuals, families and small businesses). It is mainly concerned with matching between the fundraising of the bank, taking (small) deposits from the public, and the issue of (small) credit items to households and small businesses.

In fact, the basic financial requirements of individuals and households can be summarised as the need for payments, and the need for saving and borrowing products, which typically concern retail banking. Of course, these products and services are also of relevance for companies. However, we need to differentiate between how and why these services are provided to companies and how they are provided in the retail bank setting.

In corporate banking the financial issues that a bank is required to address include cash management, syndicate lending, and risk management.

**Definition**

Corporate banking is the part of banking that deals with corporate customers and includes activities such as money management, national and international trade finance, and risk management.

These services are related to the requirement of corporations to handle incoming and outgoing cash flows that are more complex than those experienced by individuals. In addition, companies that operate in different countries need to deal with the risk that comes from trading in different currencies, and companies need to take financial positions that expose them to interest rate risks. You will examine these aspects in later units, and also syndicate lending, where groups of banks come together to finance large investment projects.
**Definition**

Investment banking is a type of banking in which the banks assist companies in raising capital (debt or equity), guiding them in the process of mergers and acquisitions, and providing risk management solutions.

Investment banking also involves market activities (e.g. trading in securities markets, initial public offerings (IPOs), etc.), wealth management, and financial advice services.

In the case of investment banking, the financial needs that are being addressed are not related to the daily operations of a company; they are connected with strategic decisions such as the issuance of securities (e.g. stocks and bonds), mergers and acquisitions, and other financial advice services. In addition, investment banking can include market activities such as proprietary trading in stocks, bonds and derivatives; wealth management services; and private banking.

You may have noticed some overlap between these definitions in relation to risk management. Risk management within corporate banking concerns how companies manage the risks associated with their operations. Within investment banking, risk management would be more closely related to the strategic financial aspects of corporations. In practice, risk management in both of these contexts could require the same set of risk management tools.

A brief analysis of these three areas of banking business is provided in the following reading from your textbook.

**Reading**


As you read this chapter, please pay attention to the differences between retail banking and corporate and investment banking, and the concept of ‘universal banking’.

The evolution of financial systems tends to swing from one extreme to the other in relation to banking models. In some periods banks have tended to specialise their business in single areas. So banks might adopt banking models and organisational structures where retail banking is completely separate from corporate and investment banking. In other periods, banks might be more likely to adopt a universal banking model, where large holding companies host different banks in order to be active in retail and wholesale banking. Preferences regarding banking models in a financial system can be driven by regulation. As you have seen in the reading, the so-called ‘Volcker rule’, ‘ring-fence’, and capital requirements, can have the effect of pushing the system to separate retail from wholesale banking, and, in effect, to ban universal banking. This followed a period when regulators were more flexible and more likely to accept a banking model oriented towards universal banking.
Review question

What is your opinion concerning the role of globalisation in shaping the evolution of corporate and investment banking? Do you think that globalisation will increase or decrease the decay of the universal banking model?

1.3.2 Bank business models

Given the broad definitions of the types of activity associated with the various bank business models, you can now examine a number of banks and decide which of the business models apply, retail, corporate, investment or universal?

Deutsche Bank

We will first consider Deutsche Bank.

Exercise

Please examine the Deutsche Bank website (https://www.db.com) and visit the section ‘Company’. Read the presentation of the company and analyse their areas of business.

From the description of the areas of business in which Deutsche Bank operates, the picture that emerges is of a bank that is active in a wide range of areas: from corporate and investment banking (corporate finance, cash management, securities services) to asset management (from mutual funds to customised portfolios), including private banking and wealth management.

JP Morgan Chase & Co

The next example we will consider is JP Morgan Chase & Co.

Exercise

Please now examine the website of JP Morgan Chase & Co. at https://jpmorganchase.com/ You can find information about the bank’s activities in the section ‘About us’, and you can also follow the links to https://www.jpmorgan.com/ and https://www.chase.com/

Visiting the jpmorganchase.com website you will find reference to their diversified business, which includes consumers, small businesses, big corporations, institutional investors and governments around the world. However, you may also have noticed the differentiation between the retail business (families and small businesses) and the wholesale business (large companies, and governments). This is the distinction we made earlier in this unit. This is more evident if you examine the separate websites for jpmorgan.com (the wholesale business) and for chase.com (widely present in retail banking in the US). JP Morgan Chase & Co. was formed in 2000, when Chase Manhattan Corporation merged with JP Morgan & Co. The merger created a single holding company, in which the retail and wholesale business remain separate. We could consider JP Morgan & Chase Co as an example of a universal bank.
Goldman Sachs
The third financial institution we will examine is Goldman Sachs.

Exercise
Please now examine the website of Goldman Sachs, https://www.goldmansachs.com/. You will find an introduction to the activities of the bank in the section ‘What we do’. Did you find any content concerning retail banking on the Goldman Sachs website? Goldman Sachs is purely oriented towards investment banking. You can confirm this by examining the statement of earnings for the bank, and assessing what proportion of the bank’s revenues are labelled ‘Investment banking’ or derive from activities that we have included in our definition of investment banking.

Exercise
Please obtain the latest Quarterly Report (Form 10-Q) for Goldman Sachs, and examine the Condensed Consolidated Statements of Earnings, which is the first statement in the section ‘Item 1 Financial Statements (Unaudited)’. The report can be obtained from https://www.goldmansachs.com/investor-relations/financials/

Investment banking worldwide
Finally in this section it will be useful to obtain a picture of the extent and range of investment banking activities around the world. The Wall Street Journal ‘Investment Banking Scorecard’ offers an outstanding and clear view of investment banking around the world, by comparing the performances of the top investment banks in different areas of business. The Scorecard also includes a timetable of the biggest deals on a global scale (e.g. the top ten acquisitions in the year, or the top ten IPOs).

Exercise
Please visit the WSJ Investment Banking Scorecard website: http://graphics.wsj.com/investment-banking-scorecard/
You can use the Investment Banking Scorecard to identify the significance of the different areas of business for the various investment banks. The global figures are presented, and for some of the indicators you can also get a regional ranking of investment banks.

For example, you probably noted how the top brands such as JP Morgan, Goldman Sachs and Morgan Stanley are present in most of the areas of investment banking, while other banks are more active in some parts of the investment banking business than others (e.g. Lazard in M&A, Nomura in IPOs, BNP-Paribas in Debt Capital Markets, etc.). This is evidence of how the investment banks follow different business strategies in the way they approach financial markets.
1.4 The Demand for Corporate and Investment Banking

So far in this unit you have studied the distinction between retail banking and wholesale banking, and you have examined the difference between corporate banking and investment banking. You are now in a position to consider the other side of the market, and to analyse the financial requirements of companies, and how these needs represent the demand for the services provided by corporate and investment banks. If you have knowledge of the functioning of non-financial firms, and know how the financial requirements of corporations originate, then you will be able to better understand how corporate and investment banks function. You can also assess the quality of a bank’s strategy in relation to this business.

Let us now examine the role of money and finance in a non-financial company, and how money and finance relate to the core business of a non-financial company.

The ultimate objective of a firm is to make profit, and to create value. Investors who buy company stocks, shares and bonds invest their money with the aim of making a profit. From a cash perspective the investors look at a company as a financial investment: they invest an amount of money, and they have an expectation that the money will be paid back at a future date, with a positive return (e.g. capital gains, dividends, interest, etc.). From a company point of view, money represents a tool to do business, because money is essential to start or renew the production process. If we look at the business of a commercial or industrial firm, the evidence that money is instrumental for the core business is even more evident. Money and finance are not part of the core business, but they are pivotal for the successful operation of a company.

🎉 Review question

Please take a moment to reflect on this, and to make sure you understand how finance, although essential to the setting-up and successful operation of company, is, nevertheless, not the core business of a non-financial company.

To demonstrate this point, we can look at the functioning of a large non-financial company. For this unit we have chosen Apple Inc.

👨‍🏫 Study Note

In this section you will examine the financial statements of Apple, comprising the income statement, statement of cash flow, and balance sheet. The point of considering these statements is for you to develop an understanding of the types of decisions made by companies, both economic and financial, and the related demand for the services of corporate and investment banks that these decisions imply. You are not expected to undertake a detailed financial assessment of the company.
Apple Inc.

Apple Inc. (or simply ‘Apple’) is a world-leading company in the consumer technology business. Its business includes cell phones, laptop and desktop computers, digital audio devices, digital contents distribution, etc.

The decisions about what kind of products to develop, what features the products should have (e.g. fashion design, usability, etc.), and the pricing of the products, represent ‘economic’ decisions. Decisions about how to find the money needed to do business, or what to do with the money generated by the business, are ‘financial’ decisions. Generally speaking, financial decisions concern every decision that concerns ‘cash flows’, defined as the amounts of cash moving into and out of a business. To understand the extent to which economic and financial decisions represent different issues, we will take a look at the Apple accounting reports.

Exercise


Please examine the figures for annual gross profit, net income and final cash flow of the company. Is there a direct and close relation between the figures for gross profit and net income on the income statement, and final cash flow?

To take one year as an example, for the 2015–16 reporting period, the company had outstanding business results, with business gross profit equal to $84,263m, and net-income equal to $45,687m, as shown in Table 1.1. At the same time the final cash flow of the company was negative, equal to −$636m, as shown in Table 1.2. Obviously, these figures will change from year to year, but the point to take from this exercise is that there is not necessarily a direct correlation between business profit and final cash flow.

Table 1.1  Apple Income Statement, 2016 ($million)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>215,639</td>
</tr>
<tr>
<td>Cost of Revenue</td>
<td>131,376</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>84,263</td>
</tr>
</tbody>
</table>

Operating Expenses

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and Development</td>
<td>10,045</td>
</tr>
<tr>
<td>Sales, General and Administration</td>
<td>14,194</td>
</tr>
<tr>
<td>Operating Income</td>
<td>60,024</td>
</tr>
</tbody>
</table>

|                          |          |
| Additional income/expense items | 1,348   |
| Earnings Before Interest and Tax     | 61,372  |
| Earnings Before Tax                 | 61,372  |
| Income Tax                           | 15,685  |

|                          |          |
| Net Income               | 45,687   |
Table 1.2  Apple Statement of Cash Flow, 2016 ($million)

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Income</strong></td>
<td>45,687</td>
</tr>
<tr>
<td><strong>Cash Flows-Operating Activities</strong></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>10,505</td>
</tr>
<tr>
<td>Net Income Adjustments</td>
<td>9,148</td>
</tr>
<tr>
<td><strong>Changes in Operating Activities</strong></td>
<td></td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>1,044</td>
</tr>
<tr>
<td>Changes in Inventories</td>
<td>217</td>
</tr>
<tr>
<td>Other Operating Activities</td>
<td>1,090</td>
</tr>
<tr>
<td>Liabilities</td>
<td>−1,867</td>
</tr>
<tr>
<td><strong>Net Cash Flow-Operating</strong></td>
<td>65,824</td>
</tr>
<tr>
<td><strong>Cash Flows-Investing Activities</strong></td>
<td></td>
</tr>
<tr>
<td>Capital Expenditures</td>
<td>−12,734</td>
</tr>
<tr>
<td>Investments</td>
<td>−32,022</td>
</tr>
<tr>
<td>Other Investing Activities</td>
<td>−1,221</td>
</tr>
<tr>
<td><strong>Net Cash Flows-Investing</strong></td>
<td>−45,977</td>
</tr>
<tr>
<td><strong>Cash Flows-Financing Activities</strong></td>
<td></td>
</tr>
<tr>
<td>Sale and Purchase of Stock</td>
<td>−29,227</td>
</tr>
<tr>
<td>Net Borrowings</td>
<td>22,057</td>
</tr>
<tr>
<td>Other Financing Activities</td>
<td>−1,570</td>
</tr>
<tr>
<td><strong>Net Cash Flows-Financing</strong></td>
<td>−20,483</td>
</tr>
<tr>
<td><strong>Effect of Exchange Rate</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Net Cash Flow</strong></td>
<td>−636</td>
</tr>
</tbody>
</table>

You may notice in Table 1.2 that the net cash flow from financing does not sum correctly. The detail of cash flows related to Apple’s 2016 financing activities are shown in Table 1.3 (from Apple’s Form 10-K).

Table 1.3  Apple, Cash flow statement – financing activities, 2016 ($million)

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proceeds from issuance of common stock</td>
<td>495</td>
</tr>
<tr>
<td>Excess tax benefits from equity awards</td>
<td>407</td>
</tr>
<tr>
<td>Payments for taxes related to net share settlement of equity awards</td>
<td>−1,570</td>
</tr>
<tr>
<td>Payments for dividends and dividend equivalents</td>
<td>−12,150</td>
</tr>
<tr>
<td>Repurchases of common stock</td>
<td>−29,722</td>
</tr>
<tr>
<td>Proceeds from issuance of term debt, net</td>
<td>24,954</td>
</tr>
<tr>
<td>Repayments of term debt</td>
<td>−2,500</td>
</tr>
<tr>
<td>Change in commercial paper, net</td>
<td>−397</td>
</tr>
<tr>
<td>Cash used in financing activities</td>
<td>−20,483</td>
</tr>
</tbody>
</table>

The apparent contradiction between a positive business result (profit) and what seems to be a negative financial result (negative net cash flow) is a good example of how economic and financial issues in a non-financial company represent different aspects of the business.
Definition

Economic decisions of a commercial company concern how to use the available resources and how to find the new resources necessary for the functioning of the core business.

In the case of Apple, an economic decision could be one concerning how many people should work in the research-and-development department in order to create new products, and how many should work on sales-and-marketing. Another example of an economic decision could be whether to invest resources and energy in opening new Apple stores, or in a more powerful online-platform and more efficient logistic services that would allow customers to buy online and receive their products at home, making everything easier and faster. The ‘make or buy’ choice is also an economic decision i.e. whether to outsource the assembly and the manufacture of hardware components.

In the following reading from The Wall Street Journal the author analyses several economic decisions concerning Apple and the functioning of the company business.

Reading

Please now read the article ‘Apple pins hopes on iPhone 7 as profit, revenue decline’ by Robert McMillan in The Wall Street Journal (updated 25 October 2016).

Please identify which economic decisions are reported.

As you have seen, there was concern about the high dependence of total revenues on the sale of smart-phones (the iPhone 7). This was addressed by the Apple CEO (Tim Cook) with a diversification strategy based on the sale of online content (e.g. music, movies, etc.) by Apple Music, iTunes and the App Store. Another ‘economic decision’ cited in the article is the automotive business, in which Apple seems to have already invested a considerable amount.

We can now consider financial decisions.

Definition

Financial decisions of a commercial company concern any decision that involves the use of money.

This might seem like a very obvious thing to say, but, as we have noted above, it is necessary to make this clear distinction between economic decisions and financial decisions. Let us examine this in more detail.

Generally, every economic decision involves one or more financial decisions. Think about the decision to increase the number of Apple stores in a country, or to open stores in a new country. The need to buy (or rent) a physical location, to set up the store with the appropriate furniture, and to prepare a marketing campaign to support the new opening, all represent an investment of capital that needs to be funded. How should the company finance the new stores? Should Apple:
1. self-finance the new stores by investing money that comes from within the company,
2. finance the new store projects by a bank loan, or
3. finance the project by issuing securities (e.g. bonds)?

As you can see, these options represent a financial decision.

The relationship between Economics and Finance in a non-financial company such as Apple can be summarised in the scheme presented in Figure 1.1. Please take a moment to trace the flow of resources and decision making through the company. You will examine these aspects in more detail below.

**Figure 1.1 Economics and finance in doing business**

So far in this section we have introduced the distinction between economic decisions and financial decisions, we have analysed the relationship between these two areas of the business, and we have seen how an economic decision is usually related with a financial consequence. If we understand the economic need behind any financial need, then we can develop a good understanding of the origins of the demand by companies for corporate and investment banking.

You will now consider in detail the elements represented in Figure 1.1. You may be familiar with some of these terms already, but it is important that you understand what each of these concepts means, and the significance for a company, its operation, and its financial requirements.

### 1.4.1 Capital raising

The starting point in the right-hand side of the scheme (Start: Capital raising) stresses how any business requires capital to start. In fact, capital raising represents a first essential financial requirement of a company. A new business, or a business that is growing, requires capital to finance the structure of the company (called ‘fixed capital’) and to make the company work (working capital).
Definition

Fixed capital is the capital invested in long-term assets that contribute to the company business for more than a single production process.

Examples of fixed capital are the factory (factory buildings, machinery, etc.), vehicles (e.g. trucks to deliver the final products, executive and fleet cars, etc.), and licences (e.g. software patents, and other intangible assets, etc.). Returning to our example, before a single new product is launched in the market, Apple needs to invest in research and development (R&D) to realise a prototype, test it, fix any bugs, and send the final release of the product to production. The capital invested in R&D becomes part of fixed capital, because the knowledge created by this investment can be used for the production of multiple units of the product.

Review question

Look back at the Apple income statement you obtained and identify how much the company invests in R&D.

For example, in 2016 expenditure on R&D was $10,045m. Note that it is a feature of financial reporting that R&D expenditures are expensed when they are incurred, but they ultimately contribute to a fixed asset for the company.

Exercise


How much is reported for fixed assets and intangible assets?

In the 2016 balance sheet, shown in Table 1.4, within Assets, other forms of fixed investment are reported including fixed assets ($27,010m) and intangible assets ($3,206m). Research laboratories, the headquarters building, and production sites directly owned by Apple are other examples of fixed capital, because these are assets that represent the fixed structure of the company, and that can be used in more than a single production process.

Table 1.4  Apple, Balance sheet, 2016 ($millions)

<table>
<thead>
<tr>
<th>Current Assets</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Cash Equivalents</td>
<td>20,484</td>
</tr>
<tr>
<td>Short-Term Investments</td>
<td>46,671</td>
</tr>
<tr>
<td>Net Receivables</td>
<td>29,299</td>
</tr>
<tr>
<td>Inventory</td>
<td>2,132</td>
</tr>
<tr>
<td>Other Current Assets</td>
<td>8,283</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td><strong>106,869</strong></td>
</tr>
</tbody>
</table>
As you have seen, R&D investments are required to develop new products. Continuing with the Apple example, production of a new cell phone requires the manufacture or purchase of the hardware components (e.g. phone screen, memory, case, etc.), and the components will be assembled by workers. The money that is invested to make products is called ‘working capital’.

**Definition**

Working capital is the capital needed by the company to run the production process to manufacture its goods or to provide its services.

Examples of operating costs are the raw materials needed to make the products (hardware and electronic components of a cell phone), labour costs, packaging, and all the other variable inputs required to realise each unit of a product or service.

On the Apple income statement that you have obtained, you can relate the item ‘Cost of revenue’ to the concept of working capital. For 2016 the cost of revenue was equal to $131,376m. These are the reported costs associated with producing the reported revenues. We can think of the cost of revenues as a flow measure of working capital used over a period of time (one year). We can also think of a stock or level of working capital, observed at one
point of time. This would be reported on the balance sheet as current assets less current liabilities.

**Review question**

Please look back to the balance sheet of Apple in Table 1.4.

On the asset side of the balance sheet, what are the values for Net receivables and Inventory?

For 2016 reported Net receivables for Apple were $29,299m, and Inventory was ($2,132m). Both these items can be included in working capital, as we have defined it above.

Working capital also generates a financial need for funding that has to be covered, just like fixed capital. And in the same way, the financial decision about the required funding requires the company to choose between internal funding (self-financing options) or external funding, using debt (e.g. bank loans, commercial credit, bonds, etc.) or equity.

Looking back at Figure 1.1 and our analysis, we can conclude that a company needs to fund working capital and fixed capital to support the operation of the company, and the company can do this by raising capital:

- Capital raising is one of the areas of business in corporate and investment banking.

A corporate and investment bank can support a company as a financial advisor, analysing the available options (self-financing, debt, equity, etc.); and by providing specific products and solutions (e.g. issue of bank loans).

### 1.4.2 Money and financial management

If we look back at Figure 1.1, we can see that capital raising is not the only financial need of a company. When the production process is started, it will go forward with the manufacture and assembly of products; delivery to retail shops (or storage in a storage facility); sale to the customers; and (finally) payment. Payments represent the end of the cycle, when profit (hopefully) is cashed and initial investment is returned. Thinking about Apple, when cell phones, computers and other devices are sold, the cash flows generated by the business need to be managed. Apple require financial services related to payments, the transfer of money, and other money management services.

- Money management (e.g. payments facilities, money transfers, etc.) is an area of business in corporate and investment banking.

Money and financial management solutions offered by commercial banks include the management of cross-country payments and multi-currency settlement services. If we analyse again the cash flow statement we can appreciate the role of money and financial management in a company like Apple.
Review question

Please look again at the cash flow statement that you obtained for Apple: 

On the cash flow statement, trace the line items below net income, which together determine Apple’s available cash flow generated from operations, cash flow used for investment activities, and cash flow from financing activities.

For example, in 2016 Apple generated net income $45,687m, representing potential incoming cash flow from its operations.

Various adjustments are required to compute cash flow available. For example, to calculate net income, depreciation is deducted from revenues. Depreciation is an expense of production, but it does not involve a cash flow. To determine available or gross cash flow, you can see that depreciation expense is added back to Net income. The other adjustments, shown as Changes in Operating Activities, are required to compute a figure for ‘available’ or free cash flow. For example, investments in invested capital constitute a cash outflow. So a reduction in inventory levels compared to the previous reporting period represents a positive cash flow. After these adjustments we obtain a figure for net cash flow from operations. For 2016 this figure, $65,824m was higher than net income.

Investments in fixed capital and other non-operating investments involve a cash outflow. For example, for Apple in 2016 the net cash flow from investing was $45,977m. In addition, the net cash flow from financing was $20,483. Taken together these items exceed cash flow available from operations, resulting in an overall net cash flow of $636m.

You should note that Apple is not a typical company in this respect. Significant revenues and net income are earned outside of the US. Like some other US multinationals, these earnings are not always repatriated to the home country, and are invested in short- and medium-term money market instruments outside of the home country.

The 2016 statement of cash flow for Apple reveals a cash outflow related to the sale and purchase of Apple stock. A net $29,277m was, in effect, returned to Apple shareholders. Against this we can see cash was raised from borrowing equal to $22,057m.

Obviously, these figures for Apple will change from year to year. The point to take from this exercise is that a company’s activities generate the demand for corporate and investment banking services, including capital raising and money management. Also, a company may require the services of investment banks to manage some financial transactions that are not directly related to the company’s operations, but are used to manage the financial structure of the company, including investments, borrowing, and share repurchases.

Apple is an example of a company that needs to invest money in order to realise products that will be sold on the market. When these products are bought by customers, revenues will be generated, along with the associated
payments from customers. Apple will be able to cover its costs, make a profit, and generate a return on the initial investments.

In contrast, there are business sectors where the cash flows related to investments and to customer payment for goods and services occur the other way around. This is the case, for instance, for insurance companies. A company that works in health insurance receives money from its clients (the premiums of the insurance policies) in advance. The company will pay for the medical treatment a client may receive at a future point in time. This business model similarly creates financial requirements. The incoming cash flows from the insurance premiums generate the need for cash management services; the company will need to invest these funds in a variety of assets of suitable liquidity and maturity to match its future obligations; and the company might need to use appropriate risk management instruments to cover its exposures. We will examine risk management more generally in the next section.

### 1.4.3 Risk management

Please look back at Figure 1.1, the production process scheme, and consider the last part of the cycle. The figure implicitly assumes that the payments from customers are sufficient to cover the costs of production, to make a profit and a return on the initial investment, to repay creditors, and to make dividend payments to shareholders. However, this outcome is not guaranteed. There is uncertainty involved in all stages of the business process.

#### Review question

In relation to Figure 1.1, please make a short list of the types of event that could occur that might reduce the firm’s ability to make a profit and repay investors.

You have probably identified many sources of risk in relation to a business, and reasons why the money invested in the business (either for fixed or working capital) will not be recovered. The sources of risk included the following:

- **credit risk** – a customer does not pay for the product or service received
- **price risk** – the company is not able to sell the product at a price high enough to make a profit
- **currency risk** – exchange rate movements mean revenues denominated in a foreign currency lose value when they are converted to the company’s local currency
- **interest rate risk** – if the company obtained funds by issuing bonds with a variable interest rate, the cost of serving the debt could increase.

You might also have identified these additional sources of risk. The company might not be able to find the financial resources to enable business to grow. The company might mismanage the available resources, and cannot guarantee the regular functioning of the business. Or the company might be using inappropriate production techniques that are not the most efficient.

- **Risk management** is an area of business in corporate and investment banking.
Corporate and investment banks can reduce the exposure to these risks, or limit the consequences of these risks, with financial solutions and/or advice.

1.5 Conclusion

In this unit we have set the scene for the rest of the module. You have considered the differences between different kinds of banks, and defined the core areas of business in corporate and investment banking. In later units you will analyse specific areas of corporate and investment banking, exploring the contribution banks make in each role, and assessing how each function affects the performance of a bank.

In addition, you have built on your understanding of the functioning of non-financial firms, and examined how the financial requirements of firms originate. This will increase your understanding of the expectations of companies concerning the supporting role of banks, and how banks help a company to achieve its aims. By analysing the firm point of view, as well as the bank point of view, you have the opportunity to develop a more complete understanding of corporate and investment banking, by referring to the supply side and the demand side of the market.

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