BANK LENDING

香港銀行學會

The Hong Kong Institute of Bankers

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Preface

Sophisticated and effective banking activities are vital for modern societies to prosper. These banking activities include, in a nutshell, deposits and lending. The latter, in particular, contributes significantly to the well-being of every banking institution and is instrumental to commercial and social development across the globe. As such, it is of vital importance that a bank, regardless of its scope and scale or geographic footprint, employ effective techniques and knowledgeable personnel to keep its risk exposure within established parameters and maintain, if not improve, its credit rating, credibility, and reputation. Banking professionals in turn must continuously develop and refresh their understanding of lending practices and procedures for the benefit of their employers, the banking system, and the economy.

Banks lend to individuals and corporations to generate profits through interest and fees. To do so, banks consider the risks inherent in the process of lending and use complex analytical tools to assess and mitigate them. The business of lending is intrinsically linked to the management of risk. Effective risk management is necessary for effective and profitable bank lending. This book looks at the process of lending, its risks, and how to assess them and tackle them. A second book in this series, *Credit Risk Management*, expands on the importance and the systems to manage risk effectively.

This book is primarily aimed at professionals with a solid grounding in the banking industry, but the layperson would also find considerable value in the discussion of bank processes and goals. Like the other books in this series, this work focuses on practices in Hong Kong, but does so with an international perspective. Ultimately, readers should find this work helpful in developing critical evaluation skills to perform the complex tasks of planning, design and supervisory or management functions necessary in a broad range of banking activities.

The first chapter in this book discusses the process of lending to personal customers, the types of loans that banks typically make available to them, and how banks can reduce risk. In the second chapter, the discussion shifts from personal customers to corporates, going through the important challenges of assessing and mitigating credit risks. Knowing the concepts of credit assessment and mitigation is only the first step towards understanding the practicalities behind these theoretical concepts. Chapter 3 starts down that route by discussing how to dig deep into financial statements and use ratios to fully understand the performance and risk associated with borrowers. The next chapter considers internal structures and how they can help banks lower lending risk. The last three chapters move on to the more practical realities of loan pricing, customer business needs, and the all-important processes of credit management.

This book includes detailed explanations, summaries, tables, and charts to help industry professionals develop a sound theoretical framework for their work in the field. Both students and working professionals can benefit from this detailed work produced in collaboration with some of Hong Kong's most prominent professionals. All efforts have been undertaken to ensure the information in this book is thoroughly up to date but it is worth noting that any changes to laws and regulations after June 30, 2011 are not included.

Aimed at banking practitioners and designed as an essential tool to achieve learning outcomes, this book includes recommendations for additional readings. A list of further readings at the end of each chapter will help readers expand their knowledge of each subject. Essential readings will occasionally be highlighted and these are important for students preparing for the Associates Examination of the Hong Kong Institute of Bankers (AHKIB) while students should also be familiar with supplementary readings that provide information that is necessary but not always spelled out in this book.

The preparation of this book and others in the series required generous input from various individuals from their respective expert areas. Those from Hong Kong's academia offered practical insights into the context for the ideas, concepts, and theories presented and discussed in this book. Subject experts and market practitioners helped ensure all information contained here is relevant and applicable to everyday practice. Stakeholders from the commercial sector and the banking industry in turn confirmed that the information provided here sufficiently reflects the reality of the banking sector, bridging the gap between theory and practice for banking professionals.

The preparation of this book would not have been possible without the help, advice, support and encouragement of dozens of people. In particular it is important to mention Eugene Iu, Simon Y C Lo, Wilson Lau, Kevin C.K. Lam and Candy Wan (Lui Mi Ping). We owe thanks to all of them.

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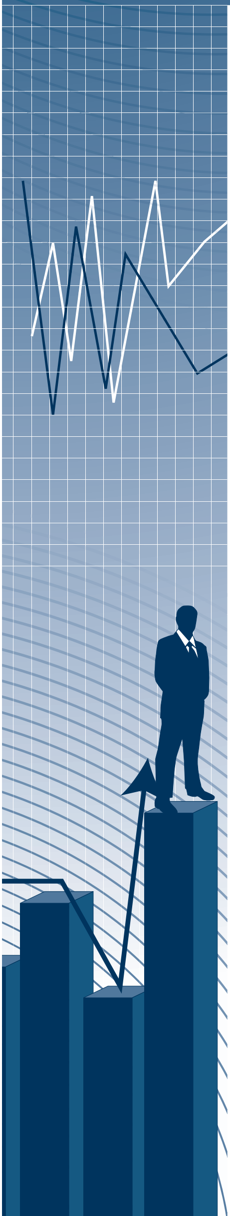
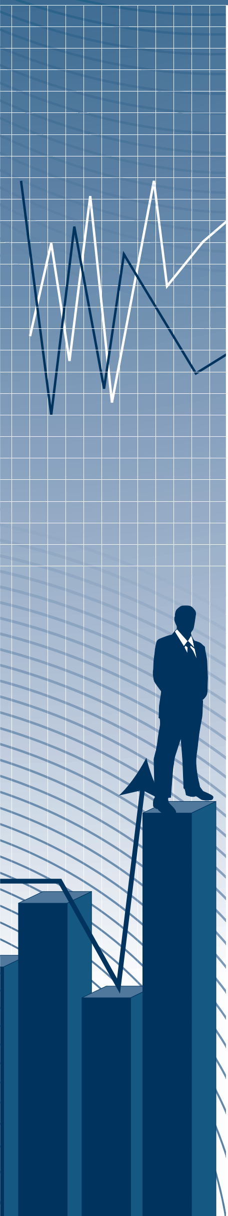


PERSONAL AND CORPORATE LENDING

CHAPTER 1

Lending to Personal Customers



Learning objectives

After studying this chapter, you should be able to:

1. Discuss general lending principles in advances to personal customers
2. Explain the types and purposes of lending to individuals
3. Describe the characteristics of residential mortgage loans and how interest rates and other fees are computed
4. Explain the various home ownership schemes in Hong Kong and the role of the HKMA and HKMC in Hong Kong's mortgage loan market
5. Understand the process of evaluating personal credit applications

Introduction

Lending money is the business of banks. Banks lend to individuals and corporations on the condition that it will be returned after an agreed period, usually with interest and fees. But lending is inherently risky. Repayment of a loan and interest on it depends on the future cash flow of the borrowers, and that future cash flow can never be certain. To be successful, banks need to ensure that the risks they take are reasonable and controlled within defined limits.

In this chapter,[1] we discuss the process of lending to personal customers, the types of loans that banks typically make available to them, and how banks can reduce the risk that these advances to individuals will not be repaid. Let us first learn about the general lending principles in making loans to personal customers. To make these principles more memorable to practitioners, they are usually arranged into easy to remember mnemonic devices such as CAMPARI, 5Cs, PARTLAMPS and PARSER.

General Lending Principles

You may know Campari as an alcoholic drink obtained from the infusion of bitter herbs, aromatic plants, and fruit made by Italy's Campari Group. In banking, though, CAMPARI stands for the initial letters of the factors that banks consider when making a decision as to whether or not to extend a loan to a personal customer: Character, Ability, Margin, Purpose, Amount, Repayment, and Insurance.

- **Character.** Before extending credit, the bank must be certain of the borrower's character. How reliable is the borrower's word regarding the details of the application and the promises made to repay? Is the borrower making overly optimistic claims?
- **Ability.** An individual borrower's ability to repay can partly be gleaned from the manner with which he or she handles financial affairs. Is there adequate cash flow in present earnings? The bank should examine the borrower's proof of income against his or her bank account records (such as bank statements), credit card statements, and references from banks and credit agencies. It should watch out for red flags such as personal cheques being dishonoured for lack of funds, frequent requests of stop payment on issued cheques, excesses on agreed facilities, and loans not being repaid on schedule.
- **Margin.** The margin expected by the lender should never cause it to underestimate or set aside the risk. The interest rate and fees to be charged for each loan application need to be commensurate with the risk perceived. The bank should decline any loan application where repayment is in doubt.
- **Purpose.** The bank should know the customer and the reason for the application. It should lend only for good causes and not for illegal purposes such as smuggling.

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[1] This chapter uses some material from *Commercial Banking* (2005) by Benton E. Gup and James W. Kolari, with permission from publisher John Wiley & Sons.

- **Amount.** The bank should ascertain if the amount of the loan requested is reasonable, if it matches the purpose, and if it is in proportion to the resources of the customer. In lending to personal customers, banks rely on the borrower's income. In general, the higher the income, the more prepared banks are to lend a greater proportion of the needed amount.
- **Repayment.** Does the borrower have sufficient capacity to pay whether through recurrent cash flows, disposition of a single asset, or anticipated income? If possible, the bank should arrange repayment through an automatic monthly debit from the borrower's salary. It should match the repayment period with the nature and purpose of the borrowing (e.g., a car loan does not usually exceed three to four years while a home mortgage loan may be granted for 25 years or even longer). The bank should be cautious of borrowers who change banks, particularly those who badmouth their previous banks. The bank should always be prepared to say "no" to any borrower who rushes it into a lending decision.
- **Insurance.** The bank should consider if some form of security is necessary, but should remember that security is not a substitute for repayment. The security must be measurable and stable in value, simple to take, easy to sell and liquidate, and must be legally enforceable. If in the form of real property, the title must be clean and transferable. The bank should be conscious of the difference in the market value and forced sale value of a security. It should always include a realistic margin to allow for the costs of realisation and the discount to be expected on a forced sale or a fall in the market.

  Another form of acceptable security is through a personal guarantee from a third party. Under the Code of Banking Practice, which is issued jointly by the Hong Kong Association of Banks and the DTC Association and endorsed by the Hong Kong Monetary Authority, the lender must apprise the personal guarantor of the risk by requiring him or her to take independent legal advice before signing any guarantee.

Besides CAMPARI, there are other easy-to-remember lending acronyms in use, such as 5Cs (character, capital, capacity, collateral, and condition); PARTLAMPS (purpose, amount, repayment, time, laws, accounts, management, profitability, and security); and PARSER (person, amount, repayment, security, expediency, and remuneration). All these acronyms deal more or less with the same elements and principles, and it is up to the individual bank to decide which ones are most useful for its own circumstances or to devise a lending acronym of its own.

Types of Personal Customers

To flesh out and apply the general lending principles, it is helpful for the banker to learn the types of personal customers that exist. Loan applicants can roughly be broken down into four categories, depending on how they earn their livelihood:

- **Salaried employees.** These applicants are permanent employees who typically receive a monthly salary, 13th month pay, overtime, allowances, and performance bonuses.

Among the key factors to examine when dealing with salaried employees are the total compensation package, length of employment, and the employer's industry and reputation.

- **Self-employed.** These borrowers own and run their own business, such as restaurants, hair salons, laundry services, or market stalls, or rely on freelance project-based work, such as journalists and editors. Because their living typically comes from a small enterprise, the risk of lending to self-employed persons is higher than for salaried workers. Banks need to closely examine assessments for profit tax by the Inland Revenue Department, financial statements, bank records, and other documents in lending to self-employed borrowers.
- **Professionals** (e.g., accountants, architects, doctors, engineers, and solicitors) can be self-employed with their own practice or salaried employees of companies, or a combination of the two. The risk of lending to professionals can be lower than that of lending to the self-employed, since professionals have specialised skills and qualifications and can charge substantial fees. Nevertheless, their income can be volatile depending on their reputation and the need for their services. Banks should take into account the stability of the profession—accountancy and medicine are typically seen as more stable professions than architecture and entertainment, for example.
- **Wage earners** or blue-collar workers are generally regarded as the most risky borrowers because they usually do not have job security and are paid by actual work done. If they are factory workers, they may not be entitled to wages if the factory is idle. If they are truck drivers, they may not be paid if there are no deliveries to be made.
- **Private investors** are those who invest in property, the stock market and other assets to make a living or supplement their income. They are typically retirees, housewives, or career people who gave up their jobs to focus on investing their money for profit.

The borrower's means of livelihood has a direct bearing on the two "As" in CAMPARI—ability to repay and the appropriate amount to be lent—as well as repayment and, especially for wage earners, insurance. Some banks may lend only to salaried workers and professionals as a matter of policy, but others may be willing to take on more risk and lend to the self-employed and wage earners as well, perhaps because the salaried/professionals market has become too crowded. Whatever the strategy, the borrower's generic and unique circumstances in terms of his or her means of livelihood must be taken into account in deciding whether or not to grant a loan.

General Purposes of Personal Advances

One key general principle in CAMPARI is the purpose of the personal loan. The most-cited reasons for asking the bank for a personal loan include the following:

- Buying a flat or house;
- Decorating a flat or house;
- Requesting bridge financing for a flat or house;
- Buying a car;
- Buying consumer products like computers and smart phones;
- Starting a new business or new practice;
- Investing or speculating in various financial products;
- Spending for a wedding;
- Paying for a vacation trip;
- School tuition;
- Paying salaries tax, inheritance tax and other taxes.

All of the above purposes are valid and legal, but banks also need to make sure their money will indeed be used as the borrower said it would be used. Knowing the purpose of the personal advance also has a direct bearing on the second "A" in CAMPARI—the amount to be lent obviously depends on how the loan will be used. It would be higher for buying a flat, for example, and lower to decorate that flat. The purpose of the loan will also help determine whether insurance is needed. Banks should ask for the title to the flat in a mortgage loan, but do not need to ask for a similar document when lending for the customer to buy a computer, which typically will be put on a credit card.

Types of Lending to Individuals

Individual clients can avail themselves of many personal loan products including the following:

- Home mortgages;
- Bridge loans;
- Probate advances;
- Investment loans and advances relating to consumer expenses;
- Personal loans and overdrafts;
- Tax loans;
- Credit cards.

Home Mortgages

A key product of Hong Kong banks is the home mortgage loan because these are generally more profitable and more secure with a lower delinquency ratio than other types of lending. The home borrower is called the "mortgagor" and the lender bank is the "mortgagee."

Residential mortgage loans differ from other types of loans in several respects. First, the loans are for relatively large amounts. Second, the loans tend to be long term. In Hong Kong, mortgagors usually have from five to 20 years to repay, but longer tenors have been offered due to heightened competition among banks. Third, the loans are usually secured, using the real estate to be purchased as collateral. However, real estate is illiquid, and its price can vary widely.

The two basic types of home mortgage loans are floating rate mortgages and fixed rate mortgages, in reference to the interest rates paid on the loan. Floating rate mortgages permit lenders to vary the interest rate charged on the mortgage loan, depending on the rise or fall of market interest rates. In fixed-rate mortgages, the interest rate charged does not change over the life of the loan. In Hong Kong, a variation to these two basic mortgages is the fixed adjustable rate mortgage (FARM), which locks in the interest rate on the loan for a certain period (say for 10 years), after which the borrower can re-fix the rate for another set period or convert the loan to a floating rate.

In Hong Kong, the wholly government-owned Hong Kong Mortgage Corporation (HKMC) buys mortgage loans from approved sellers, assuming the risk of those loans and

THE HONG KONG MORTGAGE CORPORATION'S MORTGAGE INSURANCE PROGRAMME

In 1999, a Mortgage Insurance Programme (MIP) was launched by the government-owned Hong Kong Mortgage Corporation (HKMC) to promote home ownership in Hong Kong. "Under the MIP programme, the HKMC is the insurer and the insured party is the bank, not the mortgage borrower," the company said. However, "banks have the full discretion to decide whether and to what extent the insurance premium will be passed on to the borrowers." In turn, the HKMC insures its exposure with a group of reinsurers and together they determine the mortgage premium.

The MIP enables banks to offer home buyers a higher loan-to-value (LTV) mortgage loan than the level recommended by the Hong Kong Monetary Authority (see "Prudential Measures for Property Mortgage Loans," page 13). As long as an application meets the eligibility criteria set by the HKMC, the bank can approve a mortgage of up to 90% LTV ratio. At this maximum ceiling, the home owner will need to pay a down payment of only 10% of the property price.

The MIP is periodically revised to reflect changes in the property market. On November 2010, the HKMC introduced a cap of HK$6.8 million on the value of property that can be covered by all MIP products. In June 2011, the HKMC further lowered the cap to HK$6 million. As a result, the maximum loan amount for mortgage loans with 70% loan-to-value threshold dropped to HK$5.4 million (from HK$6.12 million under the previous cap) and the maximum loan amount for mortgage loans with MIP cover at 60% loan-to-value threshold dropped to HK$5 million (from HK$6 million).

The rate of rejection under the MIP is historically low, and mainly due to the borrower showing insufficient proof of income, a debt-to-income ratio exceeding 50%, and a previous loan delinquency record.

thus helping maintain the stability of the banking sector. The HKMC also promotes home ownership through a Mortgage Insurance Programme (see "The Hong Kong Mortgage Corporation's Mortgage Insurance Programme" on page 8).

Floating Rate Mortgage

A floating rate mortgage, which is the predominant form of financing for home mortgages in Hong Kong, is one in which the interest rate changes over the life of the loan. The change can result in changes in monthly payments, the term of the loan, and/or the principal amount.

- **Index.** The idea behind floating rate mortgages is to permit lenders to maintain a positive spread between the returns on their mortgage loans (assets) and the cost of borrowed funds (liabilities) when benchmark interest rates change. This is accomplished by linking the mortgage rate to a standard benchmark rate. In Hong Kong, home mortgage rates are linked to the Hong Kong interbank offered rate (HIBOR), Hong Kong Prime Rate, Composite Interest Rate, or the prime rate quoted by mortgage loan sellers approved by the Hong Kong Mortgage Corporation.

  When an index such as the HIBOR changes, the lender can (1) make periodic changes in the borrower's monthly payments, (2) keep the monthly payment the same and change the principal amount of the loan, (3) change the maturity of the loan, or (4) any combination of the above. Some mortgage loans have fixed rates for three years, five years, seven years, or ten years, but may adjust one time, or annually after that.

  The best adjustment, from the lender's point of view, depends on whether interest rates are expected to rise or fall over the life of the mortgage loan. If they are expected to rise, increased monthly payments will increase the lender's cash flow. If they are expected to fall, the second option listed above will permit the lender to more or less maintain its spread between earning assets and costs of funds. The adjustment period may be monthly, annually, or any other time period, and changes are made according to the terms of the contract.
- **Caps.** Floating rate mortgages have caps that limit how much the interest rate or monthly payments can change yearly or over the term of the loan. For example, the interest rate change may be capped at 2 percentage points annually and 6 percentage points over the life of the loan. Alternatively, a $50 payment cap means that the monthly payment cannot increase more than $50 per year.
- **Margin.** Margin is the number of percentage points that the lender adds to the index rate to determine the rate charged on the floating rate mortgage in each adjustment period. The equation for the floating rate mortgage that is charged is:

  $$\text{Floating interest rate} = \text{index rate} + \text{margin}$$

  Suppose the index rate is 6% and the margin is 2%. The interest rate that will be charged on the floating rate mortgage is 8% (6% + 2% = 8%). The margin usually remains constant over the life of the loan. However, the size of the margin can vary from lender to lender.

- **Rates.** Lenders may offer prospective home buyers a lower interest rate or lower payments for the first year of the mortgage loan to induce the buyer to use a floating rate mortgage. After the discount period, the interest rate on the floating rate mortgage is adjusted to reflect the current index rate.

  The lower rate is commonly called a *teaser rate,* because lenders expect it to increase in future years. Even without teaser rates, the initial interest rates charged on floating rate mortgages can be lower than the rates charged on fixed rate mortgages. The extent to which they are lower depends on the maturity of the loan, and varies widely.
- **Shifting the risk.** Using floating rate mortgages is one way lenders shift some of their interest rate risk when holding mortgage loans. However, lenders may end up trading reduced interest rate risk for increased default risk and lower income. First, floating rate mortgages are riskier than fixed rate mortgages because they generate less interest income during periods of declining interest.

  Second, floating rate mortgages have higher delinquency and default risk than fixed-rate mortgages in jurisdictions like the United States. One reason for this may be that loan-to-value ratios are higher for floating-rate mortgages than for fixed-rate mortgages, although this does not apply to Hong Kong, where the loan-to-value ratio for residential mortgage properties are subject to prudential caps.(see "Prudential Measures for Property Mortgage Loans," page 13). The delinquency rates may get worse if interest rates increase because the borrower's ability to repay the loan may be diminished. This is so because the borrower's disposable income may not increase as much during the same period to cover the higher interest payments.

Fixed Rate Mortgage

In fixed rate mortgages, the interest rate does not change throughout the repayment period and the debt is gradually extinguished through equal periodic payments on the principal balance. In other words, the borrower pays the same dollar amount each month until the mortgage loan is paid off.

There are several elements to consider in fixed rate mortgages.

- **Monthly mortgage payments.** The monthly payments depend on the size of the loan, the interest rate, and the maturity. To illustrate this, let us examine the monthly mortgage payments for a $1,000 mortgage loan.

  Table 1.1 shows the monthly mortgage payments for a $1,000 mortgage loan with selected annual interest rates and maturities. A close examination of the body of the table reveals two important facts. First, the dollar amount of the monthly mortgage payment increases as the interest rate increases. For example, the monthly mortgage payment for a loan with ten years to maturity ranges from $11.10 when the interest rate is 6%, to $16.76 when the interest rate is 16%. Second, the dollar amount of the monthly mortgage payment declines as the maturity of the loan is extended. When the interest rate is 6%, the monthly mortgage payment drops from $11.10 on the 10th year of maturity, to $6.00 on the 30th year of maturity.