PART 1

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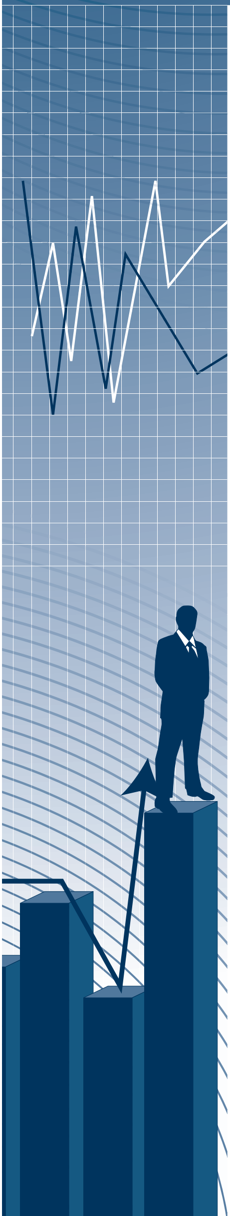
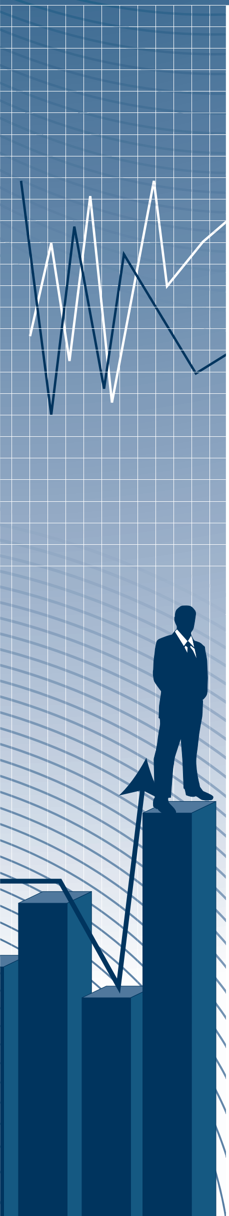


PERSONAL AND CORPORATE LENDING

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.

TABLE 1.1 Monthly payment for a $1,000 mortgage loan[2]

Annual Interest Rate	Years to Maturity				
	10 Years	15 Years	20 Years	25 Years	30 Years
6%	$11.10	$ 8.44	$ 7.16	$ 6.44	$ 6.00
8	12.13	9.56	8.36	7.72	7.34
10	13.22	10.75	9.65	9.09	8.78
12	14.35	12.00	11.01	10.53	10.29
14	15.35	13.32	12.44	12.04	11.85
16	16.76	14.69	13.92	13.59	13.45

The monthly mortgage payments shown in Table 1.1 can be determined by using the equation below.

$$\text{PV of annuity} = PMT\left[\frac{1-(1+i)^{-n}}{i}\right]$$

$$\$1{,}000 = PMT\left[\frac{1-(1+0.005)^{-120}}{0.005}\right]$$

$$PMT = \$11.10$$

By way of illustration, we will compute the monthly mortgage payment for a $1,000 mortgage loan at 6% interest for 10 years. Because we are solving for a monthly payment, the number of payments over 10 years is 120 (10 years × 12 months per year). Moreover, only 1/12th of the 6% annual interest rate (0.06/12 = 0.005) is charged each month. The present value of the annuity is the $1,000 mortgage loan in this example. The monthly payment is $11.10.

To solve the problem on a financial calculator, such as a Hewlett-Packard 12C, clear the calculator then enter n = 10 years (multiplied by 12 monthly payments, blue key), i = 6 (divided by 12 monthly payments, blue key), and PV = $1,000 (also press END button, blue key), and then press PMT. The monthly payment PMT = $11.10. Each model and brand of calculator has unique features. Your operator's manual should explain how to compute loan payments for amortised loans. Online calculators are now also available. Many Hong Kong banks even feature on their websites an easy–to-use online calculator for home mortgages.

- **Maturity.** For a given interest rate and maturity, the *total* cost of the loan to the borrower is higher with longer maturities (smaller monthly payments) than shorter maturities

[2] Benton E. Gup and James W. Kolari, *Commercial Banking*, 3rd ed. (John Wiley & Sons, 2005), 287.

(higher monthly payments). The total cost is determined by multiplying the mortgage payment per $1,000 of loan for each interest rate by the dollar amount of the loan (in thousands) and the number of months.

By way of illustration, consider a $100,000 mortgage loan at 12% with a maturity of 10 years. The monthly payment is $1,435 ($14.35 × 100 = $1,435) and the total cost over the life of the loan is $172,200 ($1,435 × 120 months = $172,200). If the maturity were 25 years, the monthly payment would drop to $1,053, but the total cost to the borrower would be $315,900, which is $143,700 more than the cost of the 10-year loan.

- **Principal and interest.** Let's examine the monthly mortgage payment in greater detail and consider the amount that is allocated to principal and to interest. Table 1.2 shows the breakdown between principal and interest for the first year's payments of a $100,000 loan at 12% for 25 years.

  The striking feature of this table is the disproportionate amount of the monthly payment that is applied to interest payments. Total mortgage payments amount to $12,636 ($1,053 × 12 = $12,636) during the first twelve months of the loan. Of that amount, $11,361.52 is applied to interest and only $1,274.48 is used to reduce the principal amount of the loan.

The implication of the data presented in Table 1.2 is that lenders earn most of their interest income during the early years of a mortgage loan. Therefore, all other things being

TABLE 1.2 Mortgage amortisation[3]

Month	Principal	Interest	Balance
1	$ 53.00	$ 1,000.00	$99,947.00
2	63.00	990.00	99,884.00
3	72.90	980.10	99,811.10
4	82.70	970.30	99,728.40
5	92.40	960.60	99,636.00
6	102.01	950.99	99,533.99
7	111.52	941.48	99,422.47
8	120.93	932.07	99,301.54
9	130.26	922.74	99,171.28
10	139.48	913.52	99,031.80
11	148.62	904.38	98,883.18
12	157.66	895.34	98,725.52
Totals	$1,274.48	$11,361.52	

[3] Benton E. Gup and James W. Kolari, *Commercial Banking*, 3rd ed. (John Wiley & Sons, 2005), 288.

equal, a high turnover of the mortgage loans contributes more interest income to earnings than having mortgage loans remain in their portfolio until they mature.

Fixed Adjustable Rate Mortgage (FARM)

The HKMC pioneered a Fixed Adjustable Rate Mortgage (FARM) Programme in 1998 to promote fixed-rate mortgage loans as an alternative choice of mortgage financing in Hong Kong. In a Hong Kong FARM loan, mortgage borrowers can lock in the interest rate on their mortgage for one year, two years, three years, five years, seven years, and 10 years. After the end of the contracted period, the borrower has the choice of re-fixing the interest rate for another term at the prevailing FARM rate or converting the loan to a floating rate mortgage at, for example, prime rate minus 3% per annum.

PRUDENTIAL MEASURES FOR PROPERTY MORTGAGE LOANS

The Hong Kong Monetary Authority (HKMA) has thought it prudent to issue guidelines from time to time to help protect the banking system.

In 1995, for example, the HKMA backed the industry-wide practice of lending home buyers only up to 70% of the market value of a residential property. In 1991, the banking sector had voluntarily adopted a 70% loan-to-value ratio for residential mortgage lending. This was subsequently endorsed by the government and incorporated in the HKMA's guidelines on property lending. Placing a 70% cap on the loanable amount or loan-to-value (LTV) ratio was "a long-term policy important for promoting stability in the banking system," the HKMA said in its 1995 Annual Report.

The cap could be adjusted downwards, as the HKMA did in January 1997, when it issued a guideline putting a 60% LTV or HK$8.4 million for luxury properties worth over HK$12 million. The HKMA withdrew this lower cap in October 2001.

Starting in 2009 and considering the increasing risk of an asset price bubble, the HKMA started issuing a series of guidelines that progressively lowered LTV on various classes of mortgages. The authority introduced countercyclical supervisory measures at least four times on October 23, 2009, August 13, 2010, November 19, 2010 and June 10, 2011 to ensure the stability of Hong Kong's banking system amid this increasing risk. These measures included standardising the limit on debt servicing ratios (DSRs) of borrowers to 50%, stress testing the debt servicing ability of borrowers assuming a rise in mortgage rates of at least two percentage points, and limiting the stressed DSR to a cap of 60%.

(*Continued*)

The process started in October 2009, when the HKMA issued a set of measures that included:

- Lowering the LTV ratio for mortgage loans for properties valued at HK$20 million or more to 60%.
- Capping the value of properties eligible for LTV ratios of 70% at HK$12 million, to avoid the anomaly of borrowers who purchased a property worth just under HK$20 million being able to borrow more than one whose property is worth just over that threshold.

Then, in November 2010, the HKMA issued a circular requiring AIs to follow additional guidelines in undertaking mortgage business, including:

- Lowering the maximum LTV for residential properties with a value of HK$12 million or above to 50%.
- Limiting the maximum LTV ratio for residential properties with a value of HK$8 million or above but below HK$12 million to 60%, subject to a maximum loan cap of HK$6 million.
- Maintaining the 70% maximum LTV ratio for residential properties valued at below HK$8 million, subject to a maximum loan cap of HK$4.8 million.
- Lowering the maximum LTV ratio to 50%, irrespective of value, for residential properties not intended to be occupied by the owners, properties held by companies, commercial and industrial properties, and properties with mortgage loans based on borrowers' net worth.

A few months later, in June 2011, the HKMA issued a new set of measures that further lowered LTV caps to both residential and non-residential property mortgages, including:

- Setting a maximum LTV ratio of 50% for owner-occupied residential properties worth HK$10 million or more, a maximum LTV ratio of 60% for properties valued between HK$7 million and HK$10 million to a maximum loan of HK$5 million, and a maximum LTV ratio of 70% for properties worth less than HK$7 million to a maximum of HK$4.2 million.
- Lowering the maximum LTV ratio by 10% for mortgages to borrowers whose income was derived from outside Hong Kong.
- Lowering the maximum LTV ratio for mortgage loans based on the borrower's net worth from 50% to 40%.

Alternative Mortgage Instruments

Alternative mortgage instruments is a generic term to denote a wide menu of mortgage instruments where the terms of the contract can change or where they differ from the traditional mortgage loan. Not all of the following are offered in Hong Kong, but they are included here in the interest of completeness.

- **Balloon mortgage.** Balloon mortgage loans are relatively short-term loans, such as five years. At the end of that period, the entire amount of the loan comes due and a new loan is negotiated.
- **Graduated payment mortgage (GPM).** Because of the high cost of housing, many young buyers cannot afford large monthly mortgage payments. Graduated payment mortgages (GPMs) address this problem by charging borrowers low monthly payments at first and then payments rise over a period of years.

  Because the monthly payments on GPMs are so low in the early years, there is negative amortisation—the monthly payments are insufficient to pay the interest on the loan. The unpaid interest accrues, and borrowers pay interest on the interest. If the borrowers decided to sell their residence in the early years, and it did not appreciate in value, the principal balance on the loan would have increased due to negative amortisation. In other words, they would owe more than they originally borrowed on the house, and the sale of the mortgaged property might not provide sufficient funds to pay off the loan.
- **Growing equity mortgage.** Growing equity mortgages are 15-year fully amortised home mortgage loans that provide for successively higher debt service payments over the life of the loan. They are made at a fixed rate and the initial payments are calculated on a 30-year schedule. However, they are paid off more rapidly because there is an annual increase in the monthly payments, all of which goes to reduce the principal balance of the loan. In addition, the interest rate is made below the prevailing rate for 30-year loans. Borrowers who can afford the increased payments can save thousands of dollars in interest payments over the term of the loan.
- **Interest-only mortgage.**[4] The interest-only mortgage lets the borrower pay only the interest portion of the loan for some predetermined period, and then the loan payments are adjusted to fully amortise over the remaining life of the loan. For example, on a 30-year mortgage loan the first 10 years is devoted to paying only the interest and then the loan payments are changed to amortise the loan over the remaining 20 years. One of the major advantages for the borrower is that monthly payments during the interest-only period are lower than they would be for a fully amortised mortgage. On the other side of the coin, the borrower may have little or no equity stake in the real estate during that period.
- **Shared appreciation mortgage (SAM).** A SAM is a mortgage loan arrangement where the borrower agrees to share in the increased value of the property (usually 30% to 50%) with the lender in return for a reduction in the fixed interest rate at the time the loan is made. The increased value of the property is determined at some specified date

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[4] Per a circular letter issued by the HKMA on 20 March 2008, AIs should not offer residential mortgage loans (RMLs) with principal repayment holiday features to customers. Noting a growing trend among authorized institutions to provide residential mortgage loans (RMLs) with a principal repayment holiday of two to three years, during which borrowers are only required to service interest payments, the HKMA warned that lenders may be exposed to considerably higher risks in the event of loan default.

in the future when the loan can be refinanced or when the property is sold. Sharing a decline in value is not part of the loan agreement.

- **Reverse mortgage.** In the U.S., the reverse mortgage is designed for senior citizens, 62 and over, who own their houses free and clear of debt and want to increase their incomes by borrowing against the equity in their houses. In this case, the lender pays the property owner a fixed tax-free annuity based on a percentage value of the property. The owner would not be required to repay the loan until his or her demise, at which time the loan would be paid from the proceeds of the estate, or until the house is sold. The interest rate on the loan may be adjustable and the loan may have a refinancing option.
- **Second mortgage/home equity loan.** Many homeowners use a second mortgage when they need funds for business or as a substitute for consumer loans. Other than selling their homes, a home equity loan is the only way homeowners can convert their equity into funds they can spend.

  Equity is the difference between the market value of the property and the mortgage debt. A traditional second mortgage is made in addition to the first mortgage and uses the same property as collateral. Second mortgages usually provide for a fixed dollar amount to be repaid over a specified period of time requiring monthly payment of principal and interest. Second mortgages have a subordinated claim to property in the event of foreclosure.

  A home equity loan can be a traditional second mortgage or a revolving line of credit, in which case the line of credit has a second-mortgage status but would be the first lien if the borrower has no mortgage debt outstanding when the credit line was established. The line of credit has a more flexible repayment schedule than the traditional second mortgage. Under the home equity line of credit, the borrower with a fixed credit line can write checks up to that amount. In the case of a home equity loan, the loan is a lump sum that is paid off in instalments over time.

HOME OWNERSHIP SCHEMES IN HONG KONG

To enable lower-income families to acquire home ownership, the Housing Authority (HA) used to offer the following programmes: the Home Ownership Scheme, the Tenants Purchase Scheme, and the Home Assistance Loan Scheme. The schemes featured guaranteed buybacks and a loan-to-value (LTV) ratio of up to 90%–100% of the lower of the purchase price or assessed market value of the properties. All three schemes have since been suspended indefinitely.

The Home Ownership Scheme (HOS) targeted those buying HOS flats—subsidised public housing with certain restrictions set on their purchase, sale, and mortgages. The scheme was suspended in 2003, although the HA has been selling unsold and returned HOS flats in phases starting in 2007.

Under the Tenant Purchase Scheme (TPS), sitting tenants could buy public estate flats. The purchase, sale, and mortgage also came with certain restrictions. Being fully guaranteed by the HKHA, the loanable amount was set at 100% LTV and a lower interest rate could be charged compared with other private property buyers. TPS buyers had to show a debt-to-income ratio of 50% and produce a copy of a Letter of Offer from the HKHA.

The Home Assistance Loan Scheme (HALS) was first offered in 2003 with the aim of helping lower-income families afford their own homes. The programme gave three options: (1) an interest-free loan of $530,000 (repayable over 13 years); (2) $390,000, also interest free and repayable over 20 years); or (3) a monthly mortgage subsidy of $3,800 (payable for 48 months). Single persons could also avail of it but the loan and subsidy amount was halved. The scheme was terminated on 14 July 2004.

Besides the government, a non-profit non-government organisation called the Hong Kong Housing Society (HKHS) has been assisting in providing affordable housing. Since 1948, the HKHS has built around 67,000 residential units under such various schemes as Rental Estate, Rural Public Housing, Flat-For-Sale, Sandwich Class Housing, Urban Improvement, and Senior Citizen Residences.

Under the Flat-For-Sale Scheme, developed in the late 1980s, tenants were allowed to own their flats at concession rates. In the early 1990s, the Sandwich Class Housing Scheme was offered specifically for those who were not eligible to apply under the Government Home Ownership (GHOS) & Private Sector Participation (PSPS) programmes but could not afford to buy private flats. The LTV was set at 80%. Due to changing market needs, however, three of the Sandwich Class Housing developments were converted into private properties for sale at full market values after the year 2000.

VILLAGE HOUSES IN HONG KONG

Village houses are low-rise residential apartments that are much sought after but difficult to acquire using bank mortgages because of their unique features.

They are usually a cheaper choice for home buyers compared to residential flats. However, banks are generally cautious in lending against village houses because valuation is more difficult since comparable transactions are fewer than for the residential flats, the administrative control over quality is less strict and their management and maintenance may not be as professional as those for residential flats.

If the village houses are located on Tso land—meaning land owned by traditional organisations known as "Tso" or "Tong"—the transaction

(*Continued*)

becomes more complicated. In this instance, Chinese customary rights will prevail over English common law and equity concepts. This may substantially affect the value of the village house in question.

In September 1998, the Lands Department issued an extensive guide to buying and selling village houses located in the New Territories. This can be accessed on their website.

To make loans for the purchase of village houses less risky for banks, the Hong Kong Mortgage Corporation opened a separate window to provide mortgage insurance for up to 85% of the LTV ratio. Up to a maximum loan amount of $5 million can be covered but the borrower has to secure a floating rate mortgage, not a fixed adjustable rate mortgage. See the HKMC website for restrictions on the age and location of village houses that can be covered.

Resale of village houses is generally much more difficult in a receding property market. Still, banks do accept mortgages against village houses if the home buyer is able to prove a comfortable debt-to-income servicing ratio. But the LTV may have to be lower (e.g. 60%) and the loan tenor shorter due to higher risks involved.

Bridging Loans

Bridge loans "bridge a gap" in a borrower's financing until some specific event occurs. For example, a firm wants to acquire a new warehouse facility, but needs funds to finance the transaction until the old warehouse can be sold. Thus, a ***bridge loan*** is short-term financing that is made in anticipation of receiving longer-term financing on which an agreement has been reached.

In the case of home mortgage loans, a personal customer may put up his or her existing property for sale in order to use the proceeds to buy a new home. To assist such buyers, banks offer two types of bridging loans—the closed and open-ended.

In the closed bridge type of loan, the customer has signed a contract to sell his or her property and has a firm completion date. While the risk is low, problems can still arise if the sale of the existing property falls through.

With the open-ended bridge loan, the borrower approaches the bank for a mortgage to acquire a new property, on the premise that the sale proceeds of his existing property will go to the purchase. Lending risks are therefore high and banks will be wise not to consider this kind of bridging loan unless the property market is buoyant and potential buyers of the existing property have been identified. In addition, it is necessary for the lender to impose a substantial margin to cover all contingencies (e.g., the anticipated net sale proceeds can repay the loan as well as accrued interest for 12 months and allow for a 20% reduction in the asking price).

Both types of bridging loans require a professional valuation of both the existing and desired properties, full insurance cover, and status enquiries on the solicitors looking over the documents pertaining to the sale transaction in order to prevent mortgage fraud.

To calculate the amount of bridging finance needed, banks use the following formula:

		HKD
	Purchase price of the new property	X
−)	Mortgage on the new property	(X)
−)	Any capital of the customer	(X)
+)	Moving expenses	X
+)	Amount to pay off the mortgage on existing property	X
=	**Bridging finance needed**	**X**

Moving expenses include:
- Estate agency fees
- Solicitor fees
- Stamp duty

Probate Advances

Probate advances are a special type of loan to enable the personal representatives of a deceased person to settle debts of the estate or pay the inheritance tax prior to the grant of probate or administration.

A word of caution: Until the grant of probate is made, the personal representatives of the deceased have no effective power to borrow against the assets of the estate. They will therefore be personally liable for any borrowing. Such loans can still be granted, however, once the lender is able to satisfactorily ascertain the integrity of the personal representatives and their solicitor, the reasonableness of the inheritance tax amount, and the time required for the repayment of the advances from the realisation of the estate.

With the abolition of estate duty in Hong Kong from 2006, the need for probate advances has become rare.

Investment Loans and Advances Relating to Consumer Expenses

One usual type of investment loan is share financing, where personal customers borrow from the bank in order to purchase listed shares or place new share subscriptions. Lenders usually advance from 50% to 60% of the market value of the shares, which normally have to be blue chip to be deemed acceptable for bank financing. But some banks will advance loans to borrowers at a lower percentage of the shares' market value for stocks other than blue chips.

With initial public offerings and new share subscriptions, quality and marketability have to be checked by analysing the financial statements. Stock agents also have to be consulted to assess market demand and the likely percentage of over-subscription.

In addition, a memorandum of deposit and a charge form have to be signed by the borrower and the shares need to be transferred into the nominee name of the bank to establish legal charge.

Personal Loans and Overdrafts

The sum involved is usually small—up to four to six times the customer's monthly salary. The tenor or repayment period is short - between six months to three years. A minimum repayment ratio, e.g. 5% of the outstanding debit balance each month, is set for an overdraft and revolving loan facility.

This type of loan has a wide variety of uses (e.g., for credit card payments, purchase of cars or consumer durables, for education, tax payments, or even a wedding).

Because this loan is generally "unsecured"—it relies mainly on the borrower's word of promise to pay back—the risk is offset with a relatively high interest margin. But lower interest rates can be offered to professionals, civil servants, and homeowners, who are among the best regarded credit risks.

The bank should use credit scoring and bank references to evaluate customer risk. In general, those on a company payroll are preferred to daily wage and commission income earners, since the former have relatively stable income, more job security, and better track records in repaying personal loans.

While giving due regard to certain laws against discrimination in Hong Kong, the bank should exercise caution in lending to those employed by small or unknown companies or in industries or categories with high volatility and turnover (e.g., project-based, floating, or short-term contract staff, airline crew, speculative traders, salespersons, agents, brokers, as well as workers in casinos, bars, nightclubs, and other entertainment establishments).

Tax Loans

In Hong Kong, tax loans can be said to carry lower risks than many other types of lending to individuals because there is proof that the borrower really has a job and the bank has access to the salaries tax assessment issued by the Inland Revenue Department. The actual amount of tax to be paid is also a good indicator of the borrower's ability to repay. It is based on a maximum of 15% (standard tax rate) of the net total income (i.e., assessable income after deductions but before allowances, giving the bank a snapshot of the borrower's financial condition).

Different banks in Hong Kong design tax loans in various ways. Some offer tax loans to cover only the actual amount owed to the government, which is the most conservative approach. Others offer loans of up to three times the tax bill if the customer is a professional, and up to two times for other customers. Still others link a personal credit loan to the tax loan, effectively increasing their risk but also their earnings from the loans.

Perhaps because of the perceived relatively low risk, the tax loan market is a crowded one. As a result, banks compete on low interest rates, with existing customers and those whose salaries are deposited directly into the bank charged even lower, and other incentives such as waiver of handling fees are offered. The fierce competition notwithstanding, banks must remain vigilant about extending loans that are of the appropriate amount and must make sure the loans are consistent with their lending policies.

Credit Cards

A credit card is any card, plate, or device that may be used from time to time and over and over again to borrow money or buy goods and services with a promise to pay by a certain date and without an exchange of cash.

A credit card should not be confused with a debit card or prepayment card. A **debit card** looks like a plastic credit card, and may be used to make purchases, but no credit is extended. The funds are electronically withdrawn or transferred from the cardholder's account to pay for the purchases. Debit and credit cards are the preferred method of payment for in-store sales. In the case of prepayment (stored-value) cards, such as Octopus cards, a certain dollar amount is prepaid, and deductions are made for each transaction.

The growth of credit card–related consumer debt is attributable to automation, and the fact that credit cards are mass-marketed like a commodity. Mass mailings of credit card applications are sent to selected segments of the population based on demographic criteria, such as income and housing. The applications are evaluated using credit scoring. Qualified applicants receive cards, and their accounts are monitored by computer programs. The use of automation keeps labour cost at a minimum for the large number of transactions processed.

There are three types of credit card plans for banks. The first type of plan uses a single principal bank to issue the credit card, maintain accounts, bill and collect credit, and assume most of the other functions associated with credit cards. In the second type of plan, one bank acts as a limited agent for the principal bank. The principal bank issues the card, carries the bulk of the credit, and performs the functions described in the first plan. The functions of the agent bank are to establish merchant accounts and accept merchant sales drafts; it receives a commission on the business it generates without incurring costs of a credit card operation. The limited agent bank may have its own name and logo on the card. Cardholders assume that the card is issued and managed by that bank, which is not the case.

In the third plan, a bank affiliates with one of the major travel and entertainment card (T & E) plans such as American Express. A travel and entertainment card is a credit card, but cardholders must pay the entire amount owed when billed. They do not have the option of making small payments over time. However, American Express also issues other cards that are credit cards in the true sense of the word.

Bank-issued credit cards have the following common features:

- The credit card holder has a prearranged line of credit with a bank that issues credit cards. Credit is extended when the credit card holder buys something and signs (or approves) a sales draft at a participating retail outlet. The retail merchant presents the sales draft to its bank for payment in full, less a merchant discount that is based on:
  i. The retail outlet's volume of credit card trade
  ii. The average size of each credit card sale
  iii. The amount of compensating balances kept at the bank
  iv. Some combination of the above factors
- The merchant discounts range from nothing to 6% or more. The merchant's bank will get part of the merchant discount for handling the transaction and routing it to the major credit card company (e.g., Visa, MasterCard) that issued the card. The credit card company determines the amount that the card-issuing bank owes. The card-issuing bank pays the credit card company, and the credit card company pays the merchant bank.
- Most banks allow the credit card holder to pay the bill in full within a *grace period* (say 25 days from the billing date) and not be charged interest on the outstanding balance, or pay a minimum amount each month on an instalment basis. Banks depend on interest income earned on these credit balances as the major source of income from their credit card operations.
- Banks also earn fee income from credit cards. For example, a bank may charge an annual fee (say HK$150) for the privilege of having a credit card, although for competitive reasons, some banks charge no annual fees. Fees are also charged for other account activities such as:
  i. Cash advances;
  ii. Late payments;
  iii. Exceeding credit lines;
  iv. Returned-check fees when payments are not honoured.
- The final feature that all bank credit cards have in common is the plastic credit card itself, which identifies the customer to the merchant. Some credit cards have the customer's picture on the card in order to augment its security for in-person transactions. The card may be encoded with a magnetic strip or computer chip that provides additional information about the cardholder's financial condition.

Consumer Credit Data

Credit scoring is the use of statistical and operational research and data mining models to determine the credit risk of prospective borrowers. In the United States, the credit score is a number that is calculated by a credit bureau or another company, such as the Fair Isaac Corporation's FICO score that is used in making credit decisions and for other purposes.

In Hong Kong, the individual bank assigns credit scores to current and prospective customers based on its own research and credit scoring model, using positive and negative data on individual credits furnished by a credit reference agency such as the Commercial Credit Reference Agency.[5] A number of banks in Hong Kong also tap the services of TransUnion Limited, the former Credit Information Services founded in 1982 and bought by America's TransUnion International in 1999.[6]

The major advantages of using credit scoring models are that they reduce the cost of evaluating credit and increase the speed, consistency, and accuracy of credit decisions. They also help make decisions more impartial. Credit scoring technologies are also used to assess risk-adjusted profitability of account relationships, for delinquency intervention, for fraud detection, and for other purposes. They are typically used in making consumer loans, home mortgage loans, and some commercial loans.

Credit scoring has drawbacks, however. The system has to be based on a large enough sample to make it statistically valid. Wrong, inaccurate, and incomplete information can distort scoring results. Ambitious scoring models for business and income growth as well as an increase in the number of consumers gaming the system could also undermine the reliability of results.

Credit scores are based on the past financial performance of groups of borrowers similar to the one being scored. The models employ variables that are associated with default risk. Past due payments, debt load relative to income, and employment status are examples of factors related to consumer credit and home mortgage loans.

TransUnion uses a proprietary mathematical formula to develop a credit score for an individual or company using information in its centralised database, including account delinquency data, credit enquiry, credit payment history data and public record data.

In Hong Kong, the sharing of consumer credit data through credit reference agencies is governed by the Code of Practice on Consumer Credit Data (Code) issued by the Privacy Commissioner for Personal Data.

When positive consumer credit data sharing (excluding positive mortgage data) was introduced in Hong Kong in 2003, it primarily covered the sharing of positive and negative credit data[7] relating to credit cards and unsecured personal loans, as well as the negative

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[5] Established in 2004, the CCRA aims to address the need of lending institutions for reliable credit information about small and medium size enterprises, sole proprietorships, and partnerships. It is operated by Dun & Bradstreet (HK), a unit of global provider of commercial information D&B, which has been appointed as a CCRA service provider by the Hong Kong Association of Banks and DTC Association. The role of Dun & Bradstreet (HK) is primarily on commercial credit data.

[6] In addition to Hong Kong, TransUnion operates in 24 other jurisdictions and five continents. By the end of 2009, it claims to have retrieved 66.4 million credit reports in Hong Kong. TransUnion serves some 70 member companies in Hong Kong and says it helps more than 4.3 million consumers understand and use credit better. The role of TransUnion is primarily on consumer credit data.

[7] Positive credit data refer to information on an individual's credit exposure (e.g., credit limits and outstanding amounts on credit facilities) and payment history. Negative credit data refer to information only on an individual's default record.

credit data relating to mortgage loans. Following the public consultation on the sharing of mortgage data for credit assessment in January 2011, the Privacy Commissioner for Personal Data determined in March 2011 that positive mortgage data sharing ("PMDS") would lead to responsible borrowing and lending. The code was revised on 1 April 2011 as a consequence to allow for the implementation of PMDS. The introduction of positive mortgage data sharing will enhance the credit risk management capability of authorized institutions and thereby promote banking and financial stability in Hong Kong. On 31 March 2011, the HKMA issued a circular to all authorized institutions setting out the steps they need to take to implement PMDS.

Evaluating a Personal Advance Application

The foregoing discussion on general lending principles, types of personal customers, types of lending, consumer credit data, and other issues comprise the elements that banks need to consider in deciding to make advances to personal customers or declining to make them. Unlike corporations, personal customers cannot produce a variety of financial statements and financial ratios, making retail lending more difficult than corporate lending.

Individual banks have their own processes in evaluating a personal credit application. The typical approach is to use a mix of quantitative and qualitative measures on which to base a judgement, based on general principles like CAMPARI and the other elements discussed throughout this chapter. Below are some useful general criteria applicable to the evaluation of personal credit applications in Hong Kong.

Borrower Capacity

In evaluating a personal credit application, the central task is to ascertain the borrower's capacity to pay. At minimum, the bank must verify: 1) his or her occupation; 2) the personal debt service ratio or DSR; and 3) other sources of repayment besides a regular salary. It would also be prudent to check with a credit reference agency for any unfavourable report on the potential borrower.

The Hong Kong Monetary Authority has issued guidelines on the calculation of DSR specifically for residential mortgage loans. The key points include:

- Debt service should be computed to include all monthly repayments relating to the mortgage loan application and all other debt repayments known to the lending institution, such as those arising from personal loans granted by the institution, co-financing loans provided by property developers, and credit facilities from other institutions, if these can be ascertained.

- Institutions should conduct reasonable checks on the extent of the borrower's other financial obligations, for example, by investigating whether the borrower has other existing mortgages or by reviewing the borrower's bank statements and account records.
- If part of the full debt service cost incurred by the borrower is deferred for a period, for example because of an interest holiday, the full eventual servicing cost should be included in the DSR calculation from the start.
- The current income of the borrower should be used in the DSR calculation and no allowance should be made for any expected future income increase.
- The income of other household members should not be taken into account in the DSR test, unless such members have provided a formal guarantee or the property is being acquired jointly with those members.
- The institution must obtain income proof such as a salary statement or tax return from the borrower or guarantor.

In August 2010, the HKMA standardised the limit on DSRs of borrowers to 50% and directed authorized institutions in Hong Kong "to use the prime-based interest rate cap or the prevailing prime-based mortgage rate to calculate DSRs in respect of HIBOR-based mortgage loans" because of the "relatively high volatility of HIBORs and the unusually low HIBOR rates at the moment."

Documentation

The primary basis for determining borrower capacity should be documentary proof of income, such as salary slips, employment letters, and tax demand notes, together with bank statements, in order to check actual earnings, net worth, and existing debt obligations—as well as proof of residence—especially if the borrower does not have an existing relationship with the lending bank or is not a Hong Kong resident or both.

Security

If the loan under application uses a borrower's existing property as collateral, the bank should request to see: 1) the preliminary sale and purchase agreement; 2) a land search and valuation report to ascertain the age, assessed market value, and general conditions of the property (e.g. if there are building orders and other charges); and 3) details of any tenancy agreement, including market rental of the property.

An all-monies legal charge, which is a document that secures all loans the borrower has with the bank, should be taken over the property. If the property is for investment purposes, an assignment of rental should be required. As an added precaution, the bank should require from the borrower a top-up covenant to cover any shortfall should property prices decline during the tenor of the loan.

Summary

This section summarises the issues and topics discussed in this chapter:

- Banks follow general lending principles in making advances to personal customers. One easy-to-remember acronym is CAMPARI, which stands for character, ability, margin, purpose, amount, repayment, and insurance.
- Banks also take into account the type of personal customer, such as a salaried worker or self-employed individual, and the general purpose of personal advances, such as buying a flat or house, in deciding whether or not to lend to an individual.
- There are various types of lending to individuals. Home mortgages are generally more secure with a lower delinquency ratio than other types of lending, which include bridging loans, probate advances, tax loans, and credit cards.
- The Hong Kong Monetary Authority plays a key role in regulating property mortgage lending by recommending LTV, DSR, and other regulatory standards as well as assessing the compliance of authorized institutions with these standards. The Hong Kong Mortgage Corp. helps banks lower risk by buying and insuring their mortgage loans.
- In evaluating a personal credit application, banks must verify borrower capacity through supporting documents such as salary slips, employment letters, and tax demand notes, together with bank statements in order to check actual earnings, net worth, and existing debt obligations.

Key Terms

authorized institutions
balloon mortgage
bridging loans
CAMPARI
consumer credit data
credit cards
debt service ratio (DSR)
fixed-rate mortgage loan
graduated payment mortgage (GPM)
growing equity mortgage
Home Assistance Loan Scheme (HALS)
Home Ownership Scheme (HOS)
interest-only mortgage
loan-to-value (LTV) ratio
mortgagee
mortgagor
personal loans/overdrafts
probate advances
residential mortgage loans
reverse mortgages
second mortgage/home equity loan
shared appreciation mortgage (SAM)
tax loans
Tenants Purchase Scheme (TPS)

Study Guide

1. If Borrower A is a professional with a high income but has issued three bouncing cheques and requested a bank to stop payment on two other issued personal checks, under what circumstances will the bank decide to extend him a loan?
2. How have guidelines and circulars from the Hong Kong Monetary Authority affected home mortgage loans and what were the reasons behind their issuance?
3. Borrower B would like to buy a village house. What would he have to show to convince a bank to extend him a loan? What sort of terms would he have to agree to and why?
4. How were the home ownership schemes that the Hong Kong Housing Authority used to offer different from home mortgage loans offered by banks to their customers on a commercial basis?
5. What are the reasons behind the 70% LTV cap and why has this been adjusted for certain types of home mortgages? Under what circumstances can a borrower gain approval for a loan amount that exceeds the LTV cap?

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