

## **The Study of setting Housing Cooperative in Hong Kong – Direct financing with a guarantee by Government**

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### **Abstract**

Given the extremely high dense population leading sky-rocketing high prices in Hong Kong and the aging problem, housing and pension have been the greatest and most challenging problems in Hong Kong. This paper aims to throw out an innovative, flexible, efficient and fair idea of setting a Housing Cooperative model to solve the housing and pension problems for the middle-to-low income earners in Hong Kong. By the support of the government by supply of land and acting as guarantor, housing cooperative is set up. A lead bank is identified acting as the financial agent for the housing cooperative. Via issue of shares and bonds through the lead bank, funds are directly pooled from the home users and market at lower costs. The lower financing cost enables the housing cooperative to build and sell housing units at lower prices. Housing units are then allotted to the low and middle income earners according to the values of shares and stocks they hold.

The model does not only encourage savings of low and income earners, but also helps them to own housing units at lower prices. By converting the status between home status from home owners to home lessee, home users of housing cooperative could cash out to meet their financial needs including pension and / or educational expenses of next generations thereby solving the pension of the ages.

**Key words:** bonds, housing cooperative, mortgage-backed securities, pension.

### **I. Introduction**

With extremely highly-dense population and limited land supply, housing has been a great and unresolved social problem in Hong Kong for decades. In the current housing system, Hong Kong government provides affordable housing to low income groups for rents and purchased. Given the sky-rocketing housing prices, however, the middle-to-low income group is forced to stay in extremely congested and poor housing conditions leading to various social problems. Many are forced to forgo their careers, opt for low income jobs or refuse promotions so as to 'qualified' for public housing or home ownership plans provided by the government leading to down-flow in their growth and developments. This is certainly unhealthy.

This paper aims to throw out an innovative idea of setting up the housing cooperative model to solve the housing and pension problems of Hong Kong. It is a revised and refined version

from the traditional housing cooperative of the West. Via direct issue of shares and stocks, funds are directly financed from the needs and markets thereby lowering the financing costs of the project. The lower costs of financing and the support of the government via supply of land and guarantor of the housing cooperative, housing units are built and sold at lower prices to low and middle income earners.

On the other hand, dividends and interest received by holders help to solve their pension and family needs of the holders and yet at the same time enable them to have privileges to purchase or lease the housing units of the housing cooperative at lower prices.

Through housing cooperative, government could develop rural area into housing estates and relevant infrastructures. With multinationals competing for the projects of housing cooperatives it attracts capital inflows and strengthens the status of Hong Kong as an international financial centre.

### **Problems**

(1) There is missing gap in the current public housing system, which is unfilled and unsatisfied. Housing Cooperative is missioned to fill in the gap; (2) Conventional mortgages are financed by commercial banks and insurance companies. Funds flow from home buyers and banks and insurance companies to property developers whom are financially strong with market power. Home users, government and banks are passive market takers; forced to accept the prices set by the developers / market and compete for mortgage businesses leading to market imperfections and prejudice; (3) No exit point in current public housing scheme - abuse of housing units – misallocation of resources. In the current public housing system, public home owners are ‘penalized’ by requiring to pay land premium for releasing their housing units in markets. Home owners therefore find ways and means to escape the penalty including refusal to disclose their disqualification status and equity leading to lack of exit point in the system and misallocation of resources; (4) By growth and development leading to higher income, home owners are ‘penalized’ for paying higher rent under current public housing system; (5) The government is liable to the poor for long term under the public system including maintenance, operating and redevelopment cost. The expenditure is non-revenue generating and a long term liability for government; (6) To solve the housing needs, the government had increased the supply of land substantially leading to low land costs. However, low land costs do not necessarily lead to low housing price benefiting end users since the role of property developer is profit maximization. Instead, it provides opportunities for property developers to purchase the lands at low cost leading to substantial profits gained leading to further market imperfections; and (7) Hong Kong lacks a good pension scheme

that generates constant income for the ages. With the growing number of ages, it is expected that it would lead to financial and social problems to Hong Kong government.

Since both housing and pension are basic and necessity, positive action ought to be undertaken to ensure that use of land and public housing scheme could reach its desired objectives of benefiting the end users and to protect and satisfy the needs of the weak groups. This paper therefore aims to explore an efficient, flexible and fairer housing model to solve the housing needs with focus on middle-to-low income earners. Via direct financing - by pooling the funds direct from the home users via the issuance of housing bonds and shares, it allows the Housing Cooperative to benefit directly from low land cost and financing cost leading to building of housing units at affordable rates possible to the middle –to-low income groups and without exploitations of benefits by the middle man (i.e. property developers) in the process. With the use of housing bonds, shares and mortgage-backed securities, it increases the liquidity and flexibility of the operations of Housing Cooperative and Housing Cooperative members. It also makes the conversions of housing status between ownership and leasing possible thereby providing flexibility to middle-to-low income earners in meeting their financial needs and improving the pension problems.

#### **Definition and nature**

By Wikipedia, a housing cooperative is a legally formed corporation, which owns real estate, consisting of one or more housing buildings. The corporation is membership-based, with membership granted by way of a housing share or bond purchase and income and equity limits in the Housing Cooperative. With a minimum number of housing shares and bonds, each **holder** is granted the right to apply for one housing unit of the Housing Cooperative under the Built-to-Order (BTO) scheme, which is commonly adopted in public housing in Singapore where housing units are built only after orders of housing units from buyers are ascertained. A primary advantage of the Housing Cooperative is the pooling of the members' resources so that their buying power is leveraged, thus lowering the cost per member in all the services and products associated with home ownership.

Housing Cooperative is a semi-public organization with its operation remains financially independent with operations monitored by the government. It is mainly operated by the financial institutions involving provision of capitals and issuing and sales of housing shares and bonds and leasing / sales of housing units for building Housing Cooperative. By employing a board selected from the government and financial institutions, it screens and selects who may be given priority in purchasing the shares and bonds and who may live in the Housing Cooperative. Backed by the government, the shares and bonds are almost risk-free thereby qualifying as an instrument for pension or pension related activities for investors.

They are freely tradable and convertible in the market. Backed by the mortgages, securities are issued (called Mortgage backed securities, or MBS) and tradable in market and home users thereby providing liquidity and returns to the Housing Cooperative. The returns on bonds / shares and MBS provide returns to investors and home users thereby improving the pension problems in Hong Kong.

### **Characteristics / Advantages**

(1) Housing Cooperative is a joint venture between the government, banks and potential home buyers with the use of housing bonds and shares. Via 'direct financing' - by pulling resources of potential home buyers together through the issuance of housing bonds and shares to build housing units, it reduces long-term cost finance. Together with government's guarantee and land supplied, Housing Cooperative is set up to build housing units for lease and sale at affordable price to the middle-to-low income earners. Mortgages under the sale of housing units of the Housing Cooperative are repackaged as mortgage backed securities (called MBS) and sell to investors for liquidity and revenue generations; (2) Revenue from lease and sale of housing units and shares / bonds / MBS issuance are used as redevelopments and operating expenses making the Housing Cooperative financially independent; (3) Conversion between leasing and ownership of housing units are possible without affecting users' stay making the model flexible and releasing of funds to meet pension and financial needs of home users possible; (4) Compensated with shares and bonds, it encourages house users to exit Housing Cooperative system thereby releasing housing units to other under-privileges and reverse mortgages possible leading to efficient allocations of resources; (5) Housing Cooperative allows the government, banks and home users to have a 'control' on the housing including its prices, supply, locations, developments and infrastructure; (6) To fill in the missing gap in the current housing scheme - the housing needs of middle-to low income groups of the society whom are unqualified for public housing / home ownership scheme and cannot afford the private housing; (7) Liability is limited to the individual's exposure to bond and shares holding, with no joint responsibility of home users; (8) Enhance capital and bond markets of Hong Kong; (9) Attract multinational banks to compete for the Housing Cooperative projects leading to capital inflows and economic growth ; (10) ensuring a fairer, efficient and flexible housing system leading to more harmonious society and enhance government's standing.

## **II. Literature Review**

Housing Cooperative had existed in the West for centuries including USA, Switzerland, United Kingdom, Germany, Switzerland, Canada and Finland. Cooperative development is an effective regional planning policy. According to the National Land Agency of Japan (1997) [1], regional cooperation is the policy of enhancing accessibility and interactions

among multiple areas to share resources, infrastructures and public facilities among them. This policy enhances economies of scale of public facilities and efficiently boosts local growth and quality of life.

Cooperation policy has been verified to be an efficient and beneficial method of regional development (Haughwout 1999; Blume and Blume 2007) [2] with regional cooperation has been widely discussed and deployed for regional development. In German studies, Hauswirth (2003) [3] discussed city-regional cooperation in the Berlin- Brandenburg conurbation, and Knapp et al. (2004) [4] explored the future development of the RheinRuhr metropolitan region through a study of cooperative governance. Furthermore, Turok and Bailey (2004) [5] studied cooperation between two neighboring cities, Glasgow and Edinburgh, in central Scotland. Additionally, Brenner and Bock (2002) [6] and the National Land Agency (1997) debated and developed regional cooperation policies in USA, Germany and Japan. Kashiwadani et al. (1999) [7] developed mathematical programming models to analyze cooperative planning of public facilities and expressway networks in the Shikoku region of Japan. Furthermore, Lin et al. (2005) [8] applied multiple criteria decision making methods to analyze science park location planning in the Tao-chu-miao region of Taiwan.

Studies investigated by Goodman and Goodman (1997) [9], Kelly (1998) [10], and Schill et al. (2007) [11]. They all find that there is a co-op discount, i.e. that co-ops are sold at lower prices than physically identical condominiums at equally attractive locations. Smith et al. (1984) [12], Kelly (1998) [13], and Hjalmarsson and Hjalmarsson (2009) [14] have investigated how financial arrangements affect housing prices. Smith et al. (1984) find that differences in financial arrangements between housing units are far from fully discounted into the prices of dwellings, and Hjalmarsson and Hjalmarsson (2009) arrive at similar conclusions. In Karl Robertsen and Theis Theisen (2011) [15] had found empirically that dwelling in housing cooperatives enjoys “interest discount effect” – Interest rate paid on the housing cooperative’s mutual debt is in Norway lower than the interest rate paid on private loan

#### ● **Housing Cooperative of USA**

In the traditional co-operative form, the co-operative members will own a share that own or control the building or property in which they live. Each shareholder is entitled to occupy a specific unit or has a vote in the corporation. US government started to promote a set of policies to stimulate the real estate market after great depression. Mortgage-backed-Security (MBS) has played an important role in this period. The mortgage will sell to the group of individuals (government agency or investment bank) which securities or packages. The loan together into securities can be sold to the investors. As a result, the structure of MBS has

derivate two companies which are Fannie Mae (Federal National Mortgage Association) and Freddie Mac (Federal Home Loan Mortgage Corporation). Most of the co-ops raise capital by issuing MBS. They package the mortgage as a security and then sell to the investment banks. The security prices are fluctuating by the properties price.

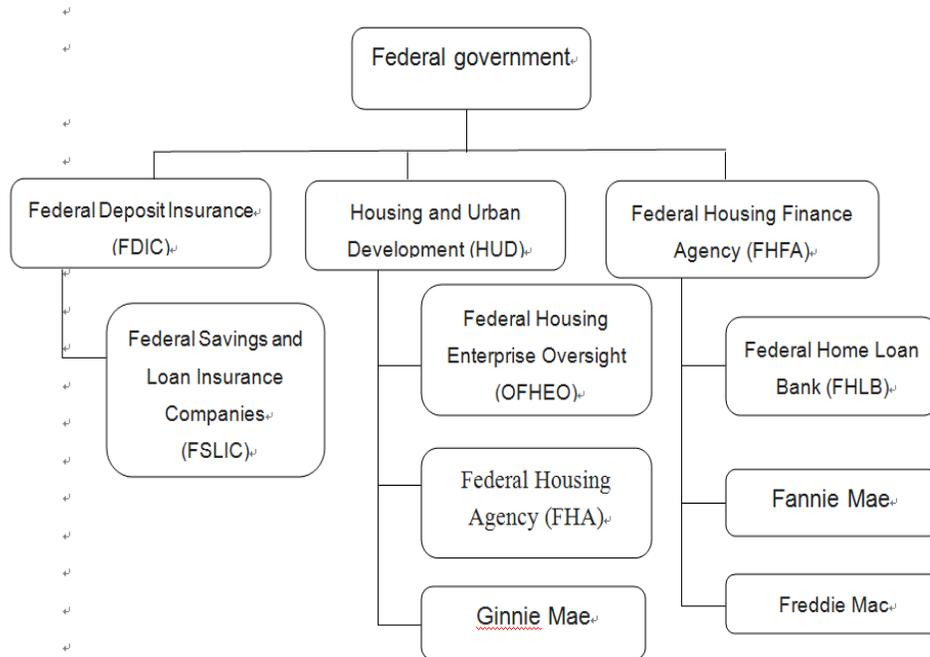


Figure 1: Co-operative housing structure of USA

● **Housing Co-Op in Germany**

Xu (2011) [16] had studied why housing prices of Germany does not rise in the past 10 years. Apart from having sufficient supply, Germany had relied on its unique ‘contractual savings’ and fixed interest rate for stabilizing housing prices under ‘Residential Mutual Savings Credit Society’. Members must comply with “First saving then loan” principle before they enter to this society. When the saving amount reaches 40% to 50% of the credit amount, the member has the qualification of gaining the loan with fixed interest from the bank – called “First saving then loan” principle. The fixed interest serves a cornerstone for stabilizing housing prices thereby avoiding large fluctuations in housing market.

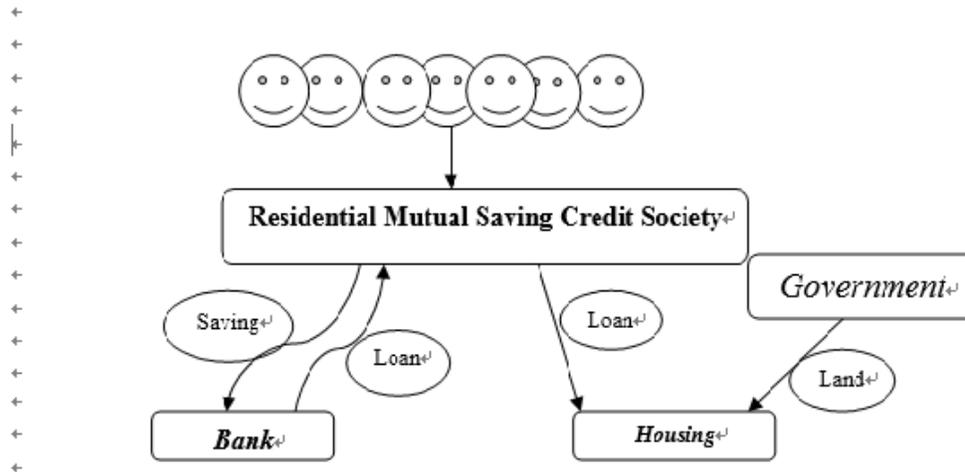


Figure 2: Germany’s Co-operative housing structure - “First saving then loan” principle

“First saving then loan” principle reduces bad debt thereby reducing risk of the local banks. And most importantly, the resident can have their house for improving their basic live. On the other hand, government has the responsibilities for developing proper policy and legislative process to ensure social welfare which is its top priority.

● **Housing Co-Op in Switzerland**

Housing co-operatives date back to the last part of 19th century. The success of housing co-operatives in Switzerland leans on a strong tradition of local community self-help and volunteer work, 100 years of housing policy, and strong and collaborative housing organizations.

In Comité Européen de Coordination de l’Habitat Social (CECODHAS) housing Europe and International Co-operative Alliance (ICA) Housing (2012) [17], Swiss government offers financial assistance like low interest loan and land to co-operative. There are two types of housing co-operatives. First one is in ‘member-ship’ housing co-operative, all tenants are members of the co-operative which grants them a preferred position compared to rental from a ordinary landlord. The later one is in ‘entrepreneurial’ co-operative, tenants are not members of the co-operative. The former type housing co-operatives provide security of tenant, affordable rents and involvement opportunity. They are non-profit. The rents are based on operating costs but not profits. So there is no dividend or interest pays and proceeds from liquidation go to similar organization.

Housing cooperatives in Switzerland aimed at the construction and housing cooperatives and other nonprofit developers affiliated from low interest repayable loan. The loans are used to finance the rest and cheapening of the following projects: new construction and replacement

affordable rental housing, acquisition and takeover of existing properties. Loans may also be determined to assist in the financial recovery of non-performing non-profit housing developers.

Rules and Guidelines for Cooperatives

- Rents are collected based on the effective cost
- No profits must be extracted from the company
- The management may not receive shares in profits
- When the company is dissolved, benefits must be used for the same purposes
- Values are not adjusted to current market prices → rents tend to get lower than those exposed to the market
- The legal form is not defined, there are (mostly) cooperatives but also trusts associations and stock corporations and the public and social housing.

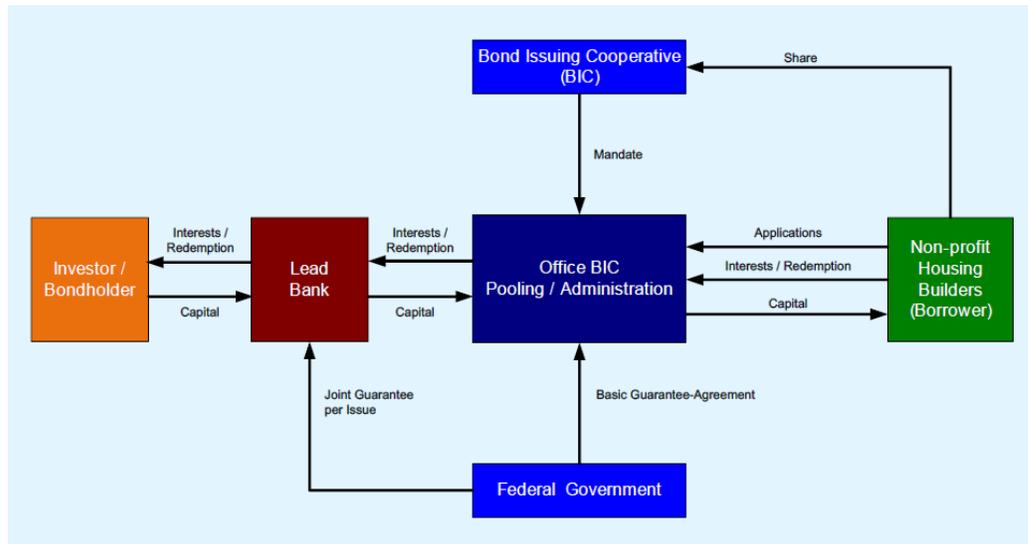


Figure 3: Swiss Bond Issuing Co-operative (BIC)  
 Source: Peter Gurtner, Chair, Swiss Bond Issuing Co-operative (BIC)

● **Hong Kong – Civil Servants’ Cooperative Buildings Society**

Hong Kong has no housing cooperative. However, in the 1950 and 60s, the government developed a scheme that allowed its civil servants to form co-operative societies – called Civil Servant’s Co-operative Building Society (CBS), to build their own residential flats for their own use with financial assistance from the government. The Society provides land at a premium of 1/3 of the market price for the qualified civil servants to build their domestic buildings with loan granted by the government for building and land price. The ownership, management and maintenance of such lands and buildings belong to the Societies while

members of it only possess the right to occupy the units. There were 238 societies being set up and about 5,000 flats provided in total in mid-1980s, the time that scheme ceased. Since the housing units were heavily subsidized by the government, house occupiers are required to pay a land premium for selling or leasing the units. As land is granted to Societies at 1/3 of the market price, total floor area, numbers of units, alienation of flats are strictly constricted by the documents.

There are currently about 900,000 sq.ft of land in the city occupied by the Civil Servants’ buildings. Due to the land premium and that it involves too many interests of different individual parties, joint effort to negotiate between Societies, developers and the government had been difficult leading to the extreme low redevelopment rate of only 5%.

**Proposed Financial Structure of the Model of Hong Kong**

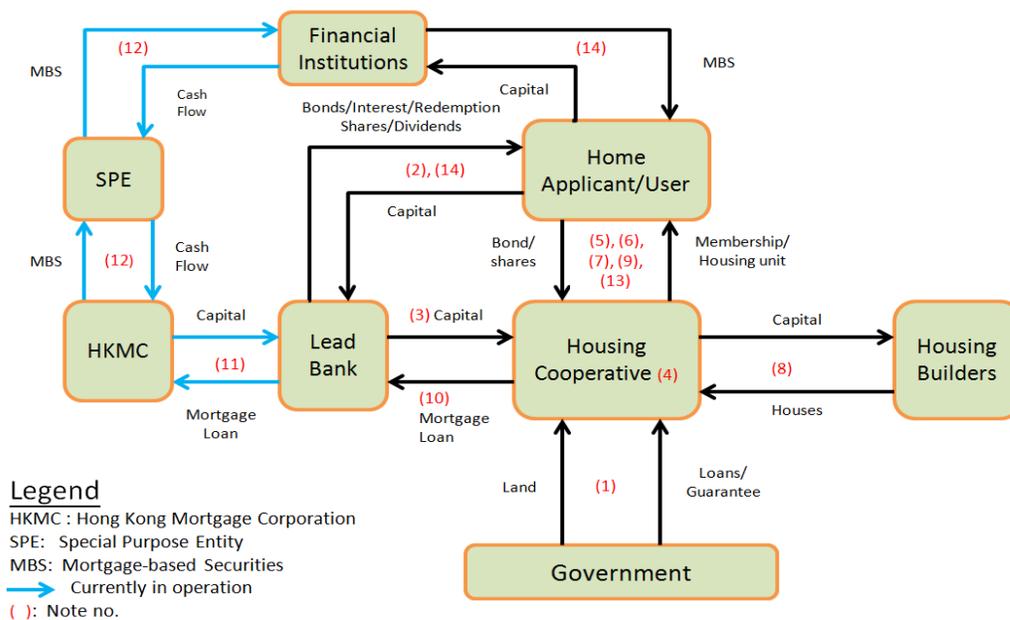


Figure 4: Proposed Structure of Housing Cooperative Model in Hong Kong

**Explanatory Notes to Figure 4:**

- (1) Hong Kong government supplies land and low rates loan / guarantee to set up Housing Cooperative.
- (2) Backed by the Co-Op and government guarantee, Lead Bank issue housing shares and bonds to Group A: public at normal price, and Group B: middle-to-low income earners at a discount. Middle-to low income group is defined as: Family income between HK\$20,000 – 40,000 or individual income between HK\$10,000-20,000. The number of shares and bonds sold at a discount to Group B’s household is limited to quantity Q1.

Choices between housing shares and bonds of the Cooperative bought by home users are to the discretions of the home applicants and investors depending on their risk averse. Housing shares provides dividends to the shareholders and performances are dependent on the performance of the Cooperative. Housing bonds provides interest / coupon and on maturity, bond holders receive full principal payment. Both housing shares and bonds are freely tradable in the market.

- (3) Lead Bank transfers the capital collected from Group B to the Cooperative for Cooperative's activities. Funds collected from Group A are kept by Lead Bank for its own activities.
- (4) Backed by the government and Lead Bank, Cooperative shall be a listed statutory organization with financial independent and monitored by the government. Board of Directors of Cooperative consists of representatives from the Lead Bank and Government representatives.
- (5) With a minimum quantity (Q1) of bond and shares, middle-to-low income earners are eligible to become a member of the Cooperative. Alternatively, they could sell away the discounted shares and bonds to the market and forgo of Cooperative membership with a profit to improve their living.
- (6) Cooperative announces Built-to-Order (BTO) scheme by inviting its members with COE with the following conditions:
  - Holders with Q1 quantity of housing bonds or shares are entitled to apply to lease one housing unit
  - Holders with Q2 quantity of housing bonds or shares are entitled to apply to buy one housing unit
- (7) Information on the housing units under BTO scheme includes the number of units, average prices, locations, amenities, waiting years, are put on website. House applicants draw lots under the BTO scheme and are informed of the outcome of their applications by Cooperative.
- (8) If the total number of applications exceeds at least 70% of the total number of housing units under BTO scheme, construction of the housing development is confirmed. The construction is then sublet to Home Builders for construction.
- (9) After construction of housing development is completed, home applicants are invited to select their houses under BTO system for occupancy. Home applicants who lease the housing unit shall pay rental, which is lower than market rate, to Cooperative. Home applicant who buys the housing unit shall arrange mortgage with the Cooperative.
- (10) After collecting and screen through the mortgage applications by Cooperative, they are transferred to Lead Bank for final approval.

(11) To meeting the cash flow needs, Lead banks could package the mortgage and issue \ issue mortgage-backed-securities to the Hong Kong Mortgage Corporation in exchange for funds.

(12) After repackaging by Special Purpose Entity of Hong Kong Mortgage Corporation and backed by mortgage, it offers MBS to the financial institutions.

### **Conversion**

(13) During the occupancy period, conversion between ‘ownership’ and ‘leasing’ is possible:

- Home ownerships could downgrade from ‘ownership’ to ‘lease’ and redeem the shares and bonds of maximum (Q2-Q1) to meet their financial needs without sacrificing their stay. Home applicants will pay rental each month below market rates to the Cooperative.
- Home leasee could upgrade from ‘lease’ to ‘ownership’ after topping the shares and bonds of Q2-Q1 to Cooperative. Home applicants will arrange mortgage loans with Cooperative.

(14) Home occupiers and investors are eligible to buy undiscounted shares and bonds from the Cooperative or MBS from Financial Institutions without any limits. The housing bonds and shares and MBS provide consistent returns to them thereby improving their pension problems.

### **III. Conclusion**

The suggested model is a modified and refined version from the traditional housing cooperation. As it is an innovative one, no empirical data is available to test its feasibility. If proved feasible, the model could be used to develop vacant and / or undeveloped lands into housing estates with infrastructure linking to cities thereby solving the housing and pension problems of the low-to- middle income groups in Hong Kong.

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