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Exploratory Study of Three Models of Equity Cooperatives



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**EXPLORATORY STUDY OF
THREE MODELS OF
EQUITY COOPERATIVES**

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capitalisation»"**

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Study of alternative housing cooperatives

"EXTRACT FROM FINAL REPORT"

This research project identifies new financing formulae for housing cooperatives. The first part describes the characteristics of a number of experiments which have already been conducted or which are being studied, in this area. Sixteen experiments are included as part of this study and these experiments can be listed under three major categories of cooperatives:

- homeownership and co-ownership cooperatives;
- rental cooperatives with member investment;
- cooperatives with right of habitation.

The great majority of these projects are not feasible unless certain government grants are available. These external contributions make it possible to reduce the amount of the downpayment and/or to decrease operating costs.

The second part of the research represents an exploratory study of the performance of three fictional housing cooperative models presenting three different ways of sharing the equity among the members of the cooperative. This equity is the result of reducing the mortgage debt and of the potential appreciation in value of the housing unit.

The first model, the rental cooperative with member investment, only allows the tenant-investor to recover the principal paid on the mortgage. Under the second formula, with an occupancy right and independent equity, an exclusive "right of habitation" is given to the member on his/her unit whereas the equity is shared by the individual and the organization in pre-determined proportions. Lastly, the formula with interdependent equity grants the whole return to the member of the corporation. In all cases ownership of the capital assets remains collective.

Application scenarios based on various hypotheses make it possible to proceed with the evaluation of the models in line with three factors: occupancy charge, return for the member and creation of a collective equity. The identification of the strengths and weaknesses of each model provides us with the possibility of proposing certain improvements to be made to the latter as well as research work to be completed to produce fully operational formulae.

A. Poulin, April 1991

"SUMMARY OF FINAL REPORT"

The housing cooperatives which have developed in Canada since the beginning of the seventies are referred to as "rental cooperatives with continual possession" since they continue to exist as independent entities, even if the members of the cooperative change. The cooperative remains the sole owner of the buildings; it rents the housing units to its members.

The financial contribution of the members is made up of their membership shares which are usually minimal, and their rents. The rents are set in such a way as to be able to meet the mortgage repayment costs and the operating costs (taxes, insurance, energy, etc.) and to set up a replacement reserve to provide for the replacement of the durable elements of the property due to normal wear and tear overtime.

In this type of cooperative, the equity elements represented by the decrease in the mortgage debt and the increase in the value of the property belong entirely to the organization (100% collective). When a member leaves the cooperative, he/she only recovers the amount invested in membership shares.

The emergence and the rapid growth of this sector were made possible by government grants. Public funds made it possible, at the same time, to execute real estate projects and to make the rents accessible for low- and mid-income households.

The possibility of developing cooperatives based on the funds of its members rather than on government grants was tried¹ in various ways. The first research book prepared as part of this study¹ identifies the various ways in which cooperation can be implemented in the area of housing and lists a certain number of innovative experiments based on the contribution of the members themselves to the financing of their projects. The sixteen experiments included in this study can be classified under three main categories:

- homeownership and co-ownership cooperatives;
- rental cooperatives with member investment;
- cooperatives with right of habitation.

The homeownership cooperative formula more often than not is very close to the "condominium" formula: granting a divided unit to each member with management of the common areas by the assembly of co-owners grouped together as a cooperative. This is the model which seems most easy to reproduce: it makes it possible to reduce the execution costs of the units and grants a return on the investment when the units are resold on the market. There are two major problems inherent in this formula:

¹

POULIN, André, Equity Cooperatives: Explorations and Recent Projects (1980-1990), Montréal, Cooperative Management Centre, 1991, 92 p. (notebook 91-1).

- difficulty in putting collective capital together; without its own funds, the organization will not be able to handle the expenses which will occur through normal use of common elements over time;
- disappearance of economic benefits for new members: once the second generation purchaser moves in, the product merges with the divided condominium market (unless regulatory mechanisms are established limiting the resale value).

Under the rental with member investment formula as well as the with right of habitation, there is a marketing difficulty. They present new and complex characteristics which are unsettling for potential new cooperative members.

The return on member investments in these experiments varies widely. At one extreme, the return is zero (100% collective equity) and, on the other end of the spectrum, the return represents the sum of the member's share of the reduction in the mortgage debt and of the appreciation in value of the units (100% individual equity). Between these two extremes, there are examples where limited returns are granted on the investment and there are also cases where the equity is divided up between the members and the cooperative.

The low or zero return in certain projects will have to be compensated by other benefits (minimum downpayments, lower operating costs, better quality of life, etc.) to motivate potential participants to accept to invest therein. A large majority of projects are only feasible insofar as certain government grants are available. These grants make it possible to reduce the amount of the downpayment and/or decrease the operating costs. Without the availability of outside financing, the investment requested of the members would be too high.

Starting with these² parameters, a research project was conducted to define financing models² intended for housing cooperatives which, independent of any existing system or of any specific grant program for housing cooperatives, could be developed in Quebec. The research study outlines three cooperative financing models which, although they do have a few characteristics in common, differ as to the type of responsibilities granted to the cooperative and to the members. These three models are referred to as rental cooperative with member investment, cooperative with right of habitation and independent equity and cooperative with interdependent equity. The elements which they share are the following:

2

The term model is not used here in the sense of an example to be followed but a rather as a type of particular operation the characteristics of which have yet to be studied and to be completed prior to testing its feasibility.

- the member's downpayment represents 10% of the value of the unit;
- collective ownership of the assets held in the form of divided condominium units, all belonging to the cooperative;
- the recovery by the member of the principal reimbursed on his/her individual mortgage or on his/her share of the cooperative's mortgage.

After having presented the common characteristics and the operating principles of the three financing models, application scenarios have been put together based on a few hypotheses concerning execution costs, interest rates, inflation, etc. This part illustrates the breakdown of the equity between the member and the cooperative, the evolution of occupancy charges as well as the evolution of the equity of each of the parties depending on the models chosen.

As a conclusion to this exploratory undertaking, four elements emerge as pre-conditions for further development of equity cooperatives:

- 1) a downpayment which would be from an internal source (the members, the cooperative) or from an external source (governments, cooperative sectors, financial institutions, etc.) or from a combination of these two sources;
- 2) agreements with lending institutions (adapted mortgage instruments, preferred interest rates, etc.);
- 3) negotiations with governments to obtain support to get new formulae off the ground (downpayment assistance for the first generation) and, in accordance with the choice of targeted client groups, certain specific assistance (rent supplement for a proportion of the units reserved for low income households);
- 4) the terms and conditions of equity sharing between the cooperative and the members shall make it possible for the cooperative to create its own source of funds (limited return on the members' investment).

The greatest difficulty is to come up with a mortgage instrument making it possible to build real estate projects based on low downpayments or downpayments from various sources while at the same time making any lenders feel secure. The target group would be made up mainly of households ready to accept a lower return on their investment than they would find on the market (to which they do not have access in any case) in exchange for an original solution to their housing problem.

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I N T R O D U C T I O N

Since the beginning of the seventies, the cooperative housing sector in Canada has been meeting a particular need in the area of housing. The rental cooperative formula has become a tool making it possible for tenants to find suitable housing conditions (in terms of price, quality and security of occupancy) and to exercise control over their living environment. The targeted client group is made up of low- and mid-income households who usually do not have the financial capacity to become homeowners.

Rental housing cooperatives are usually referred to as "continual possession" cooperatives since they continue to exist, as separate entities, even if the members of the cooperative change. This is not a homeownership formula; this formula was designed to remain fundamentally collective in nature, with the cooperative remaining the only owner of the buildings. The units cannot be transferred to other parties and right of possession cannot be inherited. If the cooperative is dissolved, the capital assets may be transferred to another cooperative or to a cooperative federation.

The housing units are owned by the cooperative which rents them to its members. The latter sign leases which stipulate the rental amounts; they also sign an agreement ("member's contract") which describes the rights and obligations of both parties, including a rebate on the rent as stipulated in the lease.

The emergence and the rapid growth of this sector were made possible through government grants. At the federal level, Canada Mortgage and Housing Corporation (CMHC) was the main stakeholder. The provinces and the municipalities have also made contributions through assistance programs which promoted the growth of the cooperative movement.

A series of more than a half dozen grant programs have been implemented to finance the development of housing cooperatives in Quebec since 1973. To summarize these briefly, we should say that the interventions by the various levels of government made it possible for cooperatives to obtain:

- start-up grants;
- direct loans;
- capital grants;
- renovation or construction grants;
- 100% mortgage loan guarantees for loans granted by lending institutions (the cooperative is the entity responsible for the mortgage and not members);
- interest rate reduction grants;
- rental grants for all the tenants or for a certain percentage of the units (15% to 30% depending on the period and programs): in the latter case, the rent is set at 25% or 30% of the household income.

The members' financial contributions represent their membership shares, which are usually minimal (under \$500) and their rents. These rents are usually set so as to be able to meet the mortgage payment and the operating costs (taxes, insurance, energy, etc.) and to be able to set up a replacement reserve to replace some of the durable components of the property which have been damaged through normal wear and tear (roof, windows, structure, etc.). Considered as a non-profit agency by the National Housing Act (NHA), the housing cooperative does not provide the members with any rebate and the excess sums are put into the general reserve. A housing cooperative does not pay any taxes: it is considered as a non-profit organization:

"...if it meets two conditions: first of all, it must be formed and operated exclusively for a non-profit purpose; secondly, no part of its income shall payable to any of its members or made available to them in any way. These two conditions are all the more easier to respect if the cooperative is already recognized as a non-profit organization under the National Housing Act (R.S.C., c. N-10)."¹

In this type of cooperative, the equity elements represented by the decrease in the debt and the increase in the value of the property remain entirely with the organization (100% collective). When a member leaves the cooperative, he/she only recovers the amount invested in membership shares.

1

Pierre SYLVESTRE and Ronald CHARBONNEAU, The housing cooperative and the Law: The housing cooperative and the tax man, Montréal, E.C.K. editions, 1981, p.2.

The main constraint with this formula is in the type of financing which is based almost exclusively on the various levels of government for the execution of real estate projects. The 1,000 or so existing cooperatives in Quebec invest very little in the development of this sector.

The possibility of developing cooperatives on the basis of their members funds rather than based on government grants has, from time to time, stirred debate and discussion within the housing cooperative sector.² For several years, the equity cooperative concept was rejected by most of the members of the cooperative movement, due among other reasons to the Cooperative Proclamation. Adopted in 1977, this Proclamation affirms that the "housing cooperative must constitute and remain a collective property, which does not seek individual accumulation of capital, but rather accumulation of collective capital."³

At the end of the eighties, cuts in government financing programs, as well as pressure that was brought to bear by groups interested in the cooperative formula, provoked growing interest in exploring innovative financing formulae. Not much was known about this subject, however, as little research had been conducted in this area.⁴ Certain experiments were nevertheless attempted⁵ and ground rules for their development determined by the sector components⁶.

² See André POULIN, Evolution of the cooperative sector in Quebec (1973-1986), under the direction of J.-G. Desforges, G. Houle and M.-C. Malo, with the collaboration of M. Bouchard, Montreal, Cooperative Management Centre, 1988, 85 p. (book 88-5).

³ See copy of Proclamation in Appendix 1.

⁴ See bibliography at the end of this document.

⁵ See André POULIN, Equity Housing Cooperatives: Explorations and Recent Developments, Montréal, École des Hautes Études Commercial, Cooperative Management Centre, 1991, 92 p. (book 91-1).

⁶ See Québec Confederation of Housing Cooperatives, Forum on equity cooperatives. Minutes of the Forum, Montréal, C.Q.C.H., September 22, 1989, 18 p.

Starting with this as a basis, we initiated research to define the financing models⁷ intended for housing cooperatives which, independent of any pre-existing system or of specific grants for cooperative housing, could be developed in Quebec. The objective set is to make possible the use of the housing cooperative formula as a savings vehicle for consumers. The purchase of a real estate property for housing purposes remains in fact the main savings method for households.

"Buying a house, moreover, for most people, is the most important investment of their lives, the capital gains from which are not taxable (...) between 1961 and 1986, the proportion of homeownership in Quebec increased from 49.0% to 54.7% (...) Today, over 55% of Quebec households own their own units."⁸

This research study describes three cooperative financing models which, although they do share certain characteristics, differ as to the type of responsibilities granted to the cooperative and the members. The common elements are the following:

- downpayments from the members representing 10% of the value of the units;
- collective ownership of capital assets held in the form of divided condominiums, all belonging to the cooperative;
- the recovery by members of the principal paid on their individual mortgages or on their shares of the cooperative's mortgage.

The differences are seen at three different levels:

- occupancy status: tenant, person with a right of occupancy or a "partner";

7

The term model is not used as an example to follow but rather as a particular type of operating, the characteristics of which have to be studied in depth and completed before its feasibility can be tested.

8

Anh TRINH, "Socio-demographics and economic trends and their impact on housing in Quebec", in Actualité immobilière, Vol. XIII, no. 4, Winter 1990, p. 20.

- the share of the mortgage assumed by the member: either a part of the cooperative mortgage or an individual mortgage for a fraction (a percentage) of the value of the individual unit;
- the breakdown of the appreciation in value of the units between the members and the cooperative.

The following pages present the common characteristics shared by three equity cooperative financing models (chapter 1) as well as the operating principles for each of them (chapter 2). Application scenarios were subsequently developed based on a few hypotheses involving execution costs, interest rate, etc. (chapter 3). The objective of this part of the study is to illustrate the breakdown of the equity between the members of the cooperative as well as to study the equity build up for each of the parties involved depending on the model chosen. An analysis of the results also highlights the income levels of potential clients for these formulae.

The study concluded with an identification of the strengths and weaknesses of the models, a description of improvements which could be made as well as additional research themes which should make it possible to clarify the parameters for formulae which are ready for experimentation (chapter 4). In conclusion, we list the conditions which seem to us to be necessary for the effective development of equity housing cooperatives.

It is important to point out that this study does not claim to present financing formulae which are applicable as is. The results of this exploratory research study require additional studies before becoming operational. It is the author's intention merely to fuel reflection as to the development of new cooperative formulae for housing in Quebec and in Canada.

C H A P T E R 1

CHARACTERISTICS WHICH ARE SHARED BY THE THREE MODELS

The description of the three models to be studied is presented in accordance with the various work hypotheses concerning the form of financing as well as the definition of the respective rights and responsibilities of the members and of the cooperative. The three models chosen are based on certain similar principles concerning ownership, value and management of capital assets.

As is the case for rental housing cooperatives with continual possession, ownership is and remains collective. It is not a matter of individual ownership but a case where a group of divided condominium units are all owned by the same entity: the cooperative which, as the corporation, assumes the responsibilities related to ownership of all of the real estate assets. The choice of this type of collective tenure facilitates the management of the financial commitments; this formula does make it possible nevertheless to grant individual mortgages to each housing unit.

The units are first of all reserved for the members to be used as their main residences. Members cannot be associated with more than one unit within the cooperative. In all cases, when members leave, the cooperative has first choice⁹ on the empty unit.

The initial value of the cooperative housing unit is calculated as near as possible to the execution cost in order to benefit from a competitive advantage as far as marketing is concerned. Over time, this value will be adjusted in line with the market price, ideally a balanced price between supply and demand for the type of service offered. The general economic situation (inflation, unemployment, interest rate, etc.), the surrounding real estate market, condition of the unit, the location of the property and the quality of property management are the main factors affecting determination of the price.

9

Preemptive right: priority to purchase before any one else.

In the case of new housing cooperative formulae, the reception which this new product will receive on the market will be an additional element to be used in price setting. A favorable reaction by the market (a new market niche, meets unsatisfied needs) will mean a positive influence on the price. Conversely, if marketing difficulties occur (client group poorly defined, uncertainty vis-à-vis the new products) prices may well stagnate or even drop.

The management of these organizations is similar to that in straight rental cooperatives. The ultimate power is held by the General Assembly, made up of the members of the cooperative. The General Assembly delegates a part of its powers to the Board of Directors, which is further supported by the work of various committees (maintenance, finance, selection, etc.). The tasks may be taken in charge by the members themselves or contracted out to companies or individuals¹⁰.

Before providing you with a detailed description of how these formulae operate, we will first of all set forth their general characteristics.

1.1 FINANCING OF THE PROJECT

To simplify our presentation, we will limit the number of participants involved in financing the various types of cooperative to three: the member, the cooperative and the financial institution. The mortgage products used are generally those used on the market¹¹. Such an approach will nevertheless require adjustments to meet the needs of the new formulae, which will lead us in turn to suggest variants to traditional financing mechanisms.

¹⁰ For more details on how rental housing cooperatives operate, see Marie BOUCHARD, The function of member relations in housing cooperatives in Quebec, Montréal, Cooperative Management Centre, École des H.E.C., 1983, 100 p. plus appendices (book S-83-4).

¹¹ See glossary of main mortgage terms in Appendix 2.

The hypotheses used here are not based on any external source of capital. Indeed, chances are that, considering the way in which the housing market has operated for 45 years now in Canada and considering declarations by various levels of government, there will be an outside capital contribution. Moreover, the creation and financing of cooperatives set up on the basis of its members' funds could eventually benefit from the involvement of other external stakeholders such as cooperative housing federations or financial institutions. This issue will be discussed further in the last chapter.

1.2 CONTRIBUTION BY THE MEMBERS

Each member undertakes, in association with the other members, to provide the capital necessary to start the cooperative. As is the case for a first-time home buyer, each member of the cooperative must provide a minimum downpayment equivalent to 10% of the total value of his/her housing unit. Lesser amounts would only be possible if grants are available or internal or external financing programs makes this possible.

1.3 RIGHT TO HOUSING UNIT

In exchange for each member's financial participation, the cooperative grants said member the right to use his/her housing unit: this may involve a exclusive lease or an occupancy right, whether these be registered or not. In no case should this right be confused with right of ownership, which is held by the cooperative which is, in turn, controlled by the members.

The cooperative is an egalitarian association of people: it does not bind the personal assets of the members to decisional rights. Only the right to vote is granted to each resident member: each right to vote, which is expressed in the General Assembly, has the same value.

1.4 MORAL AND FINANCIAL RESPONSIBILITIES

The cooperative assumes the obligations that go with being a landlord. It provides housing units in good condition and the services required for the comfort and security of the occupants. Maintenance of the common spaces and equipment are its responsibility. It must respect its commitments as pertains to loans and make all current or extraordinary expenditures, in line with the orientation set down by the General Assembly and the Board of Directors. On the whole, the cooperative is responsible for seeing that the savings invested collectively by the members in the "bricks and mortar" is managed wisely.

As for each member, he/she is held responsible for the charges and obligations that go along with being the user of the cooperative housing unit. They must assume their moral and monetary responsibilities associated with the housing unit and with the common spaces for which they are jointly responsible.

To the cost of financing the property and the units (interest fees), are added expenses for the cooperative's current operations. These latter expenses, i.e., taxes, insurance, maintenance costs, management expenses as well as various energy consumption expenses are broken down among the residents. In this respect, there is the possibility of economies of scale through group purchases within a housing cooperative federation.

Provision must also be made for regular payments to set up a replacement reserve to cope with capital expenses generated by normal wear and tear on the building. Moreover, setting up a general reserve is a means of providing the cooperative with some leeway in unforeseeable situations, to make it possible to provide new services or to develop new projects. The financial participation of the members in the global capital and operating costs will be determined on a prorata basis based on the value of each unit.

In cases of surpluses, the Assembly of the Members may decide on this issue, while respecting the Cooperative's Act¹², either by setting up reserve (a general or a replacement or another type of reserve) or by using these funds to set up new services, as is the case for straight rental cooperatives, or by distributing or crediting these funds to the members on a prorata basis, based on their investments in the cooperative.

1.5 INVESTMENT VALUE AND SHARING OF EQUITY

When dealing with the concept of value, the time factor must be taken into consideration. If the sum of the values of the housing units make it possible to establish a total value for the whole property, this value also depends on the condition of the collective space and the management of the project. If, in general, these values appreciate over time, they might also depreciate in unfavorable environmental and socio-economic conditions.

In the financing formulae in this study, return on investment is based on the decrease in the mortgage debt and the increase in the value of the property. The decrease in mortgage debt depends on the length of the mortgage (amortization period) and on the term conditions (interest rate and type of mortgage). With a conventional mortgage, the monthly payments for the first few years go, in the main, to cover the payment of interest (financing cost) and there is very little reduction in the principal amount. It is only after certain number of years that these proportions are reversed and a greater proportion of the mortgage payment goes to pay off the principal¹³.

12 Article 146 in the Cooperatives Act: "Members must set aside for the reserve at least 20% of the surplus funds or over payments as long as this reserve does not contain funds equal at least 25% of the cooperatives debt."

13 Thus for a \$80 000 mortgage, at 12%, over 25 years, it takes 19 years before the proportion of mortgage payments going to decreasing the principal is greater than that of paying interest.

Considered as a form of savings, the principal payments which the members make on the mortgages on their particular units are credited to them, partially or totally, in the form of preferred shares; members can cash these shares in at refinancing or when they leave the cooperative.

The increase in the value of the property is, in the main, linked to the real estate market context; this context reflects such elements as scarcity of real estate properties, location, economic situation, and more specifically mortgage interest rates and the economic condition of households (see Table 1).

TABLE 1

Variations in new house prices
for Canada and certain cities
between July 89 and July 1990

<u>Region</u>	<u>Increase</u>
Canada	+ 0.3%
Montréal	+ 2.8%
Toronto	- 4.9%
Calgary	+14.4%
Vancouver	+ 5.8%

Source: Statistics Canada ¹⁴

This data, a reflection of the economic situation, varies over time and with the actual location of the housing unit. On the mid- and long-term, they do nevertheless represent increasing values. On the short-term, the range in the variations can however be large.

"...compared to December 1989, the average price of new houses was 1.8 percent higher in Montréal last December, whereas the value of new houses decreased by 12.1 percent in Toronto and by 9.6 percent in Vancouver for the same period."¹⁵

¹⁴ Quoted in Habitablec Montréal, Montréal, September 28, 1990, p. 84.

¹⁵ Quoted in the newspaper La Presse, Montréal, Vol. 107, no. 113, February 13, 1991, p. C-1.

If the growth rate for the market value of a real estate property (by extension, the housing unit) is above that of the inflation rate, this then means that the value of this asset is appreciating in real terms; if it is the same, the asset keeps its value over time. On the other hand, if the growth rate in the value of the asset is below the inflation rate, in real terms it can be said that the value of the asset is decreasing. This depreciation will be reflected by a price increase which is under the general price increase. Nevertheless, a real estate property is considered as a secure investment and, with very few exceptions, its value does grow over time (see Table 2).

TABLE 2

Annual average increase in value
of existing single-family homes
and inflation rate for Canada
and certain cities from 1976 to 1987

<u>Region</u>	<u>Increase</u>	<u>Inflation</u>
Canada	+ 5.4%	+ 7.4%
Montréal	+ 8.0%	+ 7.4%
Toronto	+10.5%	+ 7.4%
Calgary	+ 4.4%	+ 6.6%
Vancouver	+ 6.7%	+ 6.1%

Source: CMHC, Canadian Housing Statistics, from 1976 to 1987¹⁶

Whether the members' investments are reimbursed (totally or partially) from the appreciation in value, depends on the formula chosen by the decision making group of the cooperative. The decision to remunerate the capital invested in new housing cooperative formulae is based on recognition of the risk incurred by members and on the loss in profits represented by the collective accumulation of individual savings.

¹⁶

Quoted by Robert GABORIAULT, in "Financing Residential Properties", in Actualité immobilière, Vol. XIII, no. 3, Fall 1989, p. 21.

This decision should be clearly set forth in the statutes, the lease or the agreement or contract, to avoid any ambiguity. If necessary, the rebate (total or partial) of the appreciated value may be effected by refinancing the mortgage debt, either at the end of the mortgage term or when one member is replaced by another.

The members, to the same extent as the cooperative (corporation), are called upon to absorb the appreciation/depreciation in value of the capital assets. The value of the latter reflects controllable factors such as good administration and wise investment choices as well as market phenomena which are beyond the control of management teams. One very important unknown factor should be pointed out, however: it is not easy predict fluctuations in the value of a unit in an equity housing cooperative project in relation to the real estate market as a whole. Since there is no precedent here, the initiators of this type of project will have to conduct very detailed market studies in order to develop a completely new market niche in the real estate field.

Once the new value of the real estate asset is established (subsequent to a sale or to a professional appraisal), the cooperative has a certain number of choices as to the disposal of any increase in value. Depending on agreements which have been drawn up in advance (statutes and regulations), the cooperative may use this appreciation to increase its assets, may consider it as a return on the investment and return it to the members, or divide it between both parties. In this latter case, the division of this equity may be effected in such proportions that the cooperative has the possibility to develop and that the members may hope for a return on the capital invested which is sufficiently high so that, together with the quality of cooperative life, this housing product is competitive.

It should be expected that the cooperative's right of preemption will have an influence on the market value of the housing unit. If the members of the cooperative are too strict in controlling access to the latter, this could have the result of decreasing the return on individual, and even collective investments given the reduced fluidity of transactions.

To be entitled to the same tax treatment as a private homeowner, if the new formulae make it possible for the members to benefit from accumulated appreciation in a real estate asset, its cash realization could eventually be considered as a capital gains on a main residence. The amounts generated by this asset could then be considered non taxable.

It is essential to point out that there is a risk factor associated with the value of properties: this varies depending on the formula used and the guarantees pledged. Without totally subscribing to the idea that "what's past is prologue", past fluctuations in value are known within already developed markets (single-family houses, condominiums). On the other hand, in the case of new and original formulae (such as equity housing cooperatives) the appreciation (or depreciation) rates are totally unknown. This is a wholly new product the performance of which cannot be guaranteed on the market: these formulae have to prove themselves and no rate of return can be set in advance.

1.6 DEPARTURE AND REPLACEMENT OF MEMBER

The decision to become a member of new housing cooperative flows from a necessity of satisfying a housing need and of ensuring security of tenure and a return on individual savings invested collectively. The desire for profit should not be the main motive for becoming a member of a cooperative. The main motivations of cooperative members are quality of life, participation in decision making, security of tenure and finally respect of cooperative values. As in any association, the loss of a large proportion of the members would have a serious effect on the stability and the operations of the cooperative. Harmonious relations and certain financial incentives could promote this stability.

To reduce to a maximum the vacancy rate in the housing units, the end of a "contract" between a member and his/her cooperative could be conditional on finding a replacement for this member. This then would mean that any member wishing to leave would have the obligation to assume his/her responsibilities and to respect the internal regulations until he/she is replaced. This would avoid additional expenses for the other members.

When a member leaves the cooperative, he/she takes out the capital he/she invested therein. This capital includes the membership shares, the downpayment and the part of the mortgage which has been reimbursed. Depending on the formula chosen, the appreciation in value could remain with the cooperative, could be handed over to the member or could be divided in a predetermined fashion between the individual and the organization.

New members underwrite amounts equivalent to membership shares. They provide downpayments on the basis of the new value of the housing unit, and undertake to assume the monthly mortgage payments covering the balance of the sale prices. In a principle of continuity, this member in turn shall respect and preserve and socio-economic objective of the cooperative.

As already pointed out, the preemption right which the cooperative reserves may represent a constraint vis-à-vis resale. If the sale must be concluded at a price under the purchase price (a situation which remains exceptional) the member who is leaving will suffer the loss. Other difficulties may also occur when units are changing hands. Thus the cooperative's interests and those of the member who is leaving could sometimes lead to conflicts as pertains to the choice of a new investor member: ability of the candidates to assume their partnership role versus the highest possible sale price. Moreover, if there are no takers for a unit, the member who wants to leave may end up suffering damages which could, in the long term, affect the cooperative: danger of payment default unless the organization provides its collaboration (cooperation) to the individual.

To better understand the dynamics of each of the formulae described in this document, we are now going to describe the characteristics which differentiate these various formulae and observe the general way in which they operate.

C H A P T E R 2
OPERATING SYSTEM FOR THE THREE MODELS

The three equity housing cooperative models presented in this chapter were designed to meet the needs of a group of people wishing to become collective owners of a property wherein the members would be the individual users of the housing units. The difference with the straight rental formula resides mainly in the type of financing involved for these new cooperatives. They count in particular on the funds which the users are in a position to inject into the undertaking. In this sense, these transactions do have some of the features of classic real estate financing. They also make provision for sharing any return which could be generated by the units subsequent to a professional appraisal, to a refinancing operation or to resale on the market.

Obtaining the necessary downpayment to have access to mortgage credit is the first stage to go through to get the project off the ground. This downpayment represents a minimum of 10% of the value of each unit. If the members' downpayment amounts are below 25%, the cooperative has to insure these loans. This operation involves a premium which could represent a 3% increase in the value of the loans. The assumption here is that such insurance is available; this availability as well as the cost of this insurance, however, will have to be negotiated with the institutions involved¹⁷.

Obtaining the total mortgage amounts makes it possible for the cooperative to purchase a lot or a building and to have the construction work or renovation work done. Subsequently, the "bookkeeping" involved is also different from that practiced by current cooperatives. In straight rental cooperatives; the rent is considered as a revenue for the cooperative and as a expense for the tenant. In the models that we are studying here, the reimbursement of the mortgage principal for a unit is credited (totally or in part) to the member residing therein. Any future appreciation in value may also be shared between the members and the cooperative. The cash amounts involved here are then handed over to the members at departure or when the mortgage is refinanced.

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The only two agencies providing this service are CMHC, and the Mortgage Insurance Company of Canada (MICC).

In the following pages, we describe three models for executing this cooperative project. They are differentiated by the type of financing and by how the equity is shared.

2.1 RENTAL HOUSING COOPERATIVE WITH MEMBER INVESTMENT

The rental housing cooperative formula with member investment is a type of tenure where the cooperative holds all the ownership rights over the units and assumes the moral and financial responsibilities associated with these rights. This formula is closest to straight rental cooperatives. The members are tenants in the housing unit which they occupy, but they are required to make a capital contribution which corresponds to their share of the downpayment necessary to execute the project (10% of the value). The cooperative does not grant any right of ownership to the member-tenants vis-à-vis their housing units.

The members are bound to the cooperative by a lease as well as by an agreement. The latter establishes the respective financial contribution of each of the members and determines the remuneration associated with this contribution. Thus participants underwrite a certain number of membership and partnership shares, the total of which corresponds to the mortgage loans attached to their units.

The cooperative negotiates the mortgage with the lending institution and manages all the members' capital investments. The monthly rents cover the payments to reimburse the debt as well as the operating fees. The rent amount to be paid for each housing unit is established based on execution and maintenance costs for the whole cooperative project. It is that portion used to reduce the principal every month which is credited to the members in the form of partnership shares.

The cooperative's statutes and agreements signed with the members determine how the equity is shared. According to a predetermined schedule or when a member leaves the cooperative, he/she recovers that part of the mortgage reimbursement which he/she made. The cooperative is responsible for finding a new member-tenant to replace the one who is leaving.

Any increase in the value of the unit remains the property of the cooperative: this is the part of the equity that remains collective, as is the case in straight rental cooperatives. The cooperative may re-negotiate the terms of its mortgage loans, in compliance with its commitments as concerns all capital financing, and assume the financial risk accordingly.

Sharing of equity when there is a change in membership:

The old member recovers: - membership shares;
 - downpayment;
 - that part of the principal which he/she paid off on the cooperative's debt.

The new member: - underwrites the same amount in membership shares;
 - contributes a downpayment based on the new value of the unit;
 - underwrites partnership shares for the mortgage balance associated with his/her unit.

To the cooperative goes any appreciation in value by the unit.

2.2 HOUSING COOPERATIVE WITH OCCUPANCY RIGHT AND INDEPENDENT CAPITALIZATION

The housing cooperative with occupancy right (or right of habitation¹⁸) formula combines the collective nature of ownership of real estate assets with an occupancy right attached to each housing unit. In exchange for financial participation, the cooperative grants, to its members, an exclusive right of use on the housing units which they hold. The occupancy right for a equity housing cooperative, without being a property title, represents an investment or savings vehicle.

Under an agreement, this cooperative model divides the moral and financial responsibilities among the cooperative and the members, on a prorata basis based on the assets intended for collective used and those intended for individual use. The specificity of this cooperative formula resides in the way in which the downpayment is broken down. If this ratio is 25% for the cooperative and 75% for the member, 25% of the downpayment

¹⁸ See text on "right of habitation" in Appendix 3.

will be attributed to the cooperative for the assets of a collective nature and 75% will be attributed to the member and to his/her specific housing unit.

The member must provide an initial downpayment (a minimum of 10% of the total value of the unit) and assume a mortgage for 75% of the remaining value. As for the cooperative, it contracts a mortgage for the balance of this value (25%); its reimbursement will be effected by the members occupying the units to which the mortgages are attached. The financing structure of this cooperative is predetermined in an agreement which establishes the proportion of the respective financial commitments to which the monthly contributions to the property's operating expenses will be added.

The members and the cooperative (corporation) are responsible, in accordance with their commitments, for the cooperative real estate entity. It could be possible to obtain a pool of mortgages from the same lender for the cooperative so as to end up with more advantageous financing conditions. The members are thus jointly and severally responsible for the survival of their corporation.

The originality of this model resides in the possibility for the cooperative and the members to use their respective mortgage loan capacities independently by within the framework of a cooperative. The cooperative and the members can renegotiate, each of them on their own and depending on their needs, the terms of their mortgage loans in compliance with their respective commitments to the total financing of the capital expenditures, and assume the financial risk involved.

This model presupposes continuity of occupancy of the housing units or financial responsibility of the member of the cooperative for his/her housing unit, until another member has taken his/her place. The right of habitation is only transferable to a new member to the extent that the rights of preemption and of selection, which the cooperative reserves, are respected. These are established in view of sharing ensuring a certain homogeneity of the client group as pertains to the respect of cooperative values.

When there is a change in membership, it is the vendor (the old member) who must find someone to whom he/she can transfer the occupancy right. The new member must then finance the amount of the purchase (downpayment and mortgage for the individual assets) while presenting the downpayment and undertaking to make mortgage payments for that portion of the collective assets to which his/her unit is subject.

Sharing of equity when there is a change of member:

The old member recovers:

- membership shares;
- downpayment (on two mortgages);
- the equity represented by that part of the principal on his/her mortgage debt which was reimbursed and any appreciation in value in the occupancy right.

The new member:

- underwrites the same amount in membership shares;
- contributes a downpayment based on the new value of the individual and collective assets;
- reimburses the two loans (collective and individual parts) which apply to the occupancy right.

The cooperative will only recover the part reimbursed in principal of its loan and will only be able to realize the appreciation in value for its collective assets when the members accept to refinance them.

2.3 HOUSING COOPERATIVE WITH INTERDEPENDENT EQUITY

The housing cooperative formula with interdependent equity respects the uniqueness of collective ownership of a cooperative real estate asset. It involves a global calculation with individual breakdown of the equity. Through an agreement, this model recognizes the primacy of the cooperative's moral and financial responsibility and determines in a precise manner how the respective commitments of the members intertwine.

The basic characteristics of this type of cooperative are similar to the first model (rental cooperative with member investment) except for two aspects: the status of the member and the sharing of equity. In this hypothesis, the participant is neither a tenant, nor an owner of an asset or of a duly registered right of habitation. The participant makes use of a housing unit in the cooperative in exchange for a financial participation in the corporation. The clauses of this understanding are found in an agreement which is signed between the member and the cooperative.

The "financial partnership" aspect is highlighted in this type of cooperative and, as a result, under this formula the total amount of equity (that part of the mortgage which is reimbursed and any appreciation in value of the unit) is given back to the members of the corporation. The reimbursement of the mortgage debt and the market effect thus make it possible to generate individual savings which are managed collectively until they are distributed to the individual members. This happens when members leave or in accordance to a pre-established refinancing schedule. The cooperative reserves the right to choose new members.

Sharing of equity when a member leaves:

The old member recovers: - membership shares;
 - downpayments;
 - share of that part of the principal reimbursed on the cooperative's debt;
 - unit's appreciation in value.

The new member: - underwrites the same amount of membership shares;
 - contributes a downpayment based on a new value of the unit;
 - underwrites partnership shares for the mortgage balance associated with his/her unit.

In this model there will be no accumulation of equity for the cooperative based on mortgage financing.

This description of the general operating principles of the three models certainly does not cover all facets of the formulae which we shall explore. We will attempt to flesh out these initial definitions by presenting them in scenarios which will make it possible to evaluate their performances in quantitative terms.

C H A P T E R 3
SCENARIOS

In this chapter the models described in the preceding pages will be illustrated in terms of concrete figures. This exercise will make it possible to appreciate the characteristics inherent in the various formulae, in particular as pertains to occupancy charge, return on investment for the member as well as the creation and the growth of equity for the cooperative. First of all, here are the basic data which are applied to each of the models.

3.1 BASIC DATA

The scenarios are developed considering only one housing unit (new construction or purchase-renovation). We grant to this unit two separate values and the mortgage financing the unit has three different interest rates, with the amortization period remaining constant. Once these basic parameters are established, we consider variations over time for two different cases: i.e. the unit is remortgaged every five years at a higher value, or the original mortgage is maintained as well as the initial amortization period.

3.1.1 Values of the Units

The calculations are effected on the basis of hypothetical costs for two housing units: one worth \$70 000 (two-bedroom unit) and the other \$90 000 (three-bedroom unit). These amounts include the following items:

- lot acquisition and servicing;
- fees and premiums (interests, taxes, insurance during construction work, basic training for the members, professional fees, legal fees, etc.);
- construction and landscaping costs.

These execution costs also include the payment of a mortgage insurance premium equivalent to 3% of the loan value (90% of the value of the unit). It is important to point out the availability of this insurance is accepted as an hypothesis. We presume that the agencies which provide this service would agree to insuring the new products under study; the rate chosen is the highest asked by institutions for similar products (new rental properties, investment units, new condominium units).

The progression in value of these units is an element which is very difficult to predict: a potential difference between the purchase price and the sales price for the unit of + 3% per year, cumulatively is applied. However, nothing can guarantee this rate of increase. The models studied are new products, without any comparables on the market, i.e. they cannot be compared with classic types of tenure, for which previous fluctuations in value are known (without necessarily being predictable).

3.1.2 Financing

Initial financing is in the form of the downpayments which the members have to provide for the execution of the project. The initial payment required from the participants is 10% of the value of the units which they intend to occupy. To simplify the calculations, we consider the cost of the membership shares required to become a member of the cooperative (set at \$1 000 in our example) as being included in this downpayment.

The balance of the amounts necessary to execute the project (90% of the value of the unit) come from a mortgage loan from a lending institution. The relatively low level of personal investment by the members means that mortgage insurance is required. Let me remind the reader once again that we presume that it will be possible to obtain such insurance.

Depending on the formula studied, the loan is contracted solely by the cooperative (models 1 and 3) or is made up of different loans which are negotiated by the cooperative and each of the members (model 2)¹⁹. In all cases the conditions set for the loans are similar. These conditions are as follows:

<u>interest rates:</u>	<u>12%, 14% and 16%;</u>
<u>amortization period:</u>	<u>25 years;</u>
<u>mortgage term:</u>	<u>5 years.</u>

3.1.3 Operating Expenses

In addition to the financing costs (reimbursement of the principal and the interest) the monthly occupancy charges also include amounts to be used recover the operating expenses. The latter are made up of the following items: taxes, heating, insurance, maintenance, public services for the common areas, administration, replacement reserve and vacant unit reserve. These amounts total \$225 per month for two-bedroom units and \$250 per month for three-bedroom units. The rate of increase for these expenses was set at 5% per year, cumulatively.

¹⁹ Example: Breakdown of assets: member: 75%, cooperative: 25%.
Mortgages for a total of \$70 000 at 12% for 25 years.

1- Value of the <u>individual</u> part	\$52 500	Value of the <u>collective</u> part	\$17 500
2- Downpayment	5 250	Downpayment	1 750
3- Mortgage	47 250	Mortgage	15 750
4- Mortgage payments attributed to the individual	488	Mortgage payments	
attributed to the group	163	----	163

3.1.4 Evolution Over Time

To measure the performance of the various models over time, we are going to establish similar scenarios in which they develop over 25 years. Under the first scenario, the mortgage is renewed every five years, with the same financing parameters as in the beginning, but with a new value, including the appreciation (Table 1 to 6 in Appendix 4). To make the tables easier to read we omitted the fees (legal and banking fees) generated by mortgage renewals.

Under the second scenario, the initial mortgage conditions are maintained during the whole amortization period, i.e., 25 years (Table 7 to 12 in Appendix 4).

3.2 ACCESSIBILITY AND RETURNS

The first finding as a result of studying the tables involves the income required to participate in the described formula. Depending on the value of the unit and on the interest rate which applies to the loan, the occupancy charge for the first year required an annual income (for the household) which varies between \$35 000 and \$52 740, for a shelter/income or gross debt service ratio of 30%.

TABLE 3

Annual income required for the first year*

VALUE OF THE UNIT	<u>\$70 000</u>			<u>\$90 000</u>		
<u>INTEREST RATE</u>	<u>12%</u>	<u>14%</u>	<u>16%</u>	<u>12%</u>	<u>14%</u>	<u>16%</u>
MONTHLY CHARGE	\$ 875	\$ 965	\$ 1 056	\$ 1 086	\$ 1 201	\$ 1 318
ANNUAL INCOME	\$35 000	\$38 580	\$42 240	\$43 430	\$48 030	\$52 740

* For a shelter/income ratio of 30% using gross household income.

The target groups differ from those residing in straight rental cooperatives financed under the various CMHC programs.

TABLE 4

Average household income
in housing cooperatives, 1989²⁰

<u>PROGRAM:</u>	<u>SECTION 61</u> (formerly 34.18)	<u>SECTION 95</u> (formerly 56.1)	<u>FEDERAL COOPERATIVE</u> <u>HOUSING PROGRAMS</u> (FCHP)
<u>CANADA</u>			
R.T.I.*	\$23 036	\$19 495	\$13 687
N.R.T.I.#	\$31 662	\$33 453	\$33 010
TOTAL	\$27 670	\$25 343	\$26 468
<u>QUÉBEC</u>			
TOTAL	\$20 797	\$20 596	\$24 361

* RENT TO INCOME

NON RENT TO INCOME

We are not dealing here with low-income households but in fact with mid-income households who could become homeowners. It is possible to establish a comparison between the levels of income for potential clients under the equity housing cooperative formula as set forth in this document, and tenants on the private homeownership market. The table below illustrates the annual income required to become a homeowner in the various metropolitan areas in Québec.

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Source: CMHC, Evaluation of Federal Cooperative Housing Program. Interim report., Ottawa, CMHC, September 1990, p. 89 and 91.

TABLE 5

Costs and incomes used for the affordability indicator²¹

METROPOLITAN CENSUS AREA	AVERAGE PRICE OF HOME- OWNERSHIP (July-Dec 90) \$	MONTHLY PAYMENT* \$	ANNUAL REAL ESTATE TAXES & HEATING \$	TOTAL MONTHLY EXPENSES \$	ANNUAL INCOME REQ'D# \$
CHICOUTIMI- JONQUIÈRE	55 030	542	2 438	745	27 930
HULL	78 510	773	2 815	1 007	37 780
MONTRÉAL	89 940	885	3 095	1 143	42 870
QUÉBEC	68 380	673	2 917	916	34 360
SHERBROOKE	62 730	617	2 498	826	30 960
TROIS-RIVIÈRES	59 600	587	2 550	799	29 970

* Downpayment of 10%; mortgage insurance premium added to the balance; mortgage at 12.5% over 25 years, 3-year term.

Income: gross debt service ratio of 32%.

Although the income profile required to become a member of these new types of cooperatives is similar to that for households becoming homeowners, differences appear when examining the expected return on investment. An illustration of this return is found in the tables in Appendix 5 which identify how the equity is shared between the members and the cooperative in accordance with the different variables: formula, values of the unit, interest rates, etc. The table below presents the members' total accumulated equity after a period of 25 years.

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CMHC, Canadian Housing Markets, Ottawa, CMHC Market Analysis Centre, January 1991, p. 7-8.

TABLE 6

Members accumulated equity:
cumulative amounts after 25 years

VALUE OF THE UNIT:			\$70 000	\$90 000
<u>Model 1</u>	5 years*	12%	\$19 642	\$25 253
		14%	14 704	18 905
		16%	10 924	14 044
	25 years#		63 000	81 000
<u>Model 2</u>	5 years	12%	72 154	92 769
		14%	68 451	88 009
		16%	65 615	84 362
	25 years		104 673	134 580
<u>Model 3</u>	5 years	12%	96 206	123 693
		14%	91 268	117 345
		16%	87 488	112 484
	25 years		139 564	179 440

* 5 years: new mortgage every five years, with the new value of the unit, for a 25-year period, at rates of 12%, 14% and 16%; requires an increase in downpayment.

25 years: same mortgage for 25 years, regardless of the interest rate.

The first model produces the lowest return of the three formulae. It only allows for recovery of the sums paid in by the member to reimburse the borrowed principal. The partnership shares attributed to the tenant-investor do not bear any interest. Since at the beginning of a mortgage with an amortization period of 25 years, virtually 100% of the monthly payments go to cover interest, the reimbursement of the principal is minimal. This explains the minimum return on investment when a new mortgage is underwritten every five years; as in all the models, it decreases as the interest rate increases. For the same mortgage maintained during 25 years, the return is equivalent to the value of the loan (\$63 000 or \$81 000).

On the contrary, the third model allows for maximum return: all the principal amount reimbursed and all the appreciation in value is realized. This is a mechanism which mirrors the private residential market. The main difference resides in the absence of a legal ownership link between the member and the unit occupied. Most of the profit is the result of the appreciation in value (+ 3% per year in the scenarios used). Once again it is when the mortgage keeps all its initial parameters for the whole amortization period that the return on investment is the highest.

In the second model, the equity is shared by the member and the cooperative. This makes it possible for the member to recover a proportion equivalent to 75% of the principal reimbursed on the loans and of the appreciation in value by the unit. As in the other models, the highest performance remains in cases where the mortgage remains unchanged for 25 years.

There is a bias in this analysis of the return: we did not take into consideration the possibility that the member has to reinvest his/her capital which is recovered each time the mortgage is renewed, and to generate more profit. Depending on the investment vehicle used and on the individual's marginal tax rate, this income could be taxable, however. Those with mortgages that remain unchanged for the 25-year period do not have this reinvestment possibility.

If we were to look at the cooperative's accumulated equity, its situation may be illustrated by the following table:

TABLE 7

Cooperative's accumulated equity:
cumulative amounts after 25 years

<u>VALUE OF THE UNIT:</u>		<u>\$70 000</u>	<u>\$90 000</u>
<u>Model 1</u>	5 years/25 years	\$76 564	\$98 440
<u>Model 2</u>	5 years*	24 052	30 924
	14%	22 817	29 336
	16%	21 873	28 122
	25 years#	34 891	44 860
<u>Model 3</u>	5 years/25 years	0	0

* 5 years: new mortgage every five years, with the new value of the unit, for a 25-year period, at rates of 12%, 14% and 16%; requires an increase in downpayment.

25 years: same mortgage for 25 years, regardless of the interest rate.

The most profitable option, model 1, grants all of the appreciation in value to the group. The accumulated capital is the same, regardless of the interest rate.

The least attractive option for the cooperative is the third model, which does not allow for any accumulation of capital for the organization itself. This is a situation which leads the cooperative to experience difficult moments when faced with financial needs (repairs, operating deficit, etc.). Unless it has sufficient reserves based on operating income, the cooperative will have to call on its members for help to be in a position to obtain "new money" for the cooperative (increase in common fees or reimbursement of new mortgage).

Model two makes it possible for the cooperative to count on a few thousand dollars once the first five years have passed. Depending on the value of the unit and on the interest rate, this amount may vary between \$3 000 and \$4 500.

The use of sums recovered by the cooperative in models one and two depends on the members' decision. These funds may be set aside as collective savings or be allocated for particular expenses. Among these we could identify:

- prepayment of a part of the cooperative's debt;
- increase in number and quality of services to the members, while maintaining the number of housing units constant;
- increase in the number of housing units while maintaining the level of services constant;
- a combination of the above elements.

The different scenarios presented in this chapter were developed based on cash contributions by the members and on the use of conventional mortgage instruments. Two types of situations were chosen for the purposes of the study: the mortgage is renewed every five years at the new value of the housing unit or it is maintained without any changes during the whole amortization period (25 years). We limited ourselves to a reduced number of parameters to illustrate as simply as possible the way the various models under study functioned.

The results of the scenarios have made it possible to observe that the occupancy charges for the various models make them accessible to a client group similar to first-time buyers on the private market.

As pertains to the members' returns, the interdependent equity cooperative was the only formula which could compete with traditional homeownership products. It is quite similar to the "condo-coop"²², while having the same drawback: no group equity. The other models make it possible for the cooperative to generate its own capital by reducing the return to the members. This situation makes the product quite

²² A few "cooperative condominiums" experiments do exist in Quebec: see A. POULIN (1991), *op. cit.*, p. 22-26.

uncompetitive on a market where households are seeking to accumulate and invest savings in housing where they expect to reap a profit.

The examples could have included conditions making it possible to reduce the costs to increase accessibility, in terms of income required, to the equity housing cooperative formulae:

- government grants: assisted downpayment plan, assisted homeownership, real estate tax credit, etc.;
- intervention directly on type of product offered: affordable units, the McGill University "grow home", etc.²³.

But all these solutions are also available on the residential real estate market, which does not make it possible to distinguish equity housing cooperatives from the other products.

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See Jocelyn DUFF, "The architecture of affordable units: a few example in Québec and elsewhere", in Actualité immobilière, Vol. XIV, no. 1, Spring 1990, p. 16-25.

C H A P T E R 4
EVALUATION OF THE MODELS

This fourth chapter highlights first of all the benefits and the disadvantages of the models described and tested previously; subsequently, changes which are likely to improve the functioning of these models are suggested. Before becoming operational, these formulae will have to undergo additional research; in this respect, we identify a few avenues to be explored, at the end of the chapter.

4.1 STRENGTHS AND WEAKNESSES OF THE MODELS

In addition to benefitting from the advantages which are to be found in continual possession rental cooperative (insurance of having a unit in good condition at a reasonable price, good security of tenure and democratic management of housing), the new formulae make it possible for members to get a return on their investment. This return is generated by that portion of the monthly payments used to reimburse the mortgage principal and by the appreciation in value of the units. On the other hand, there are certain questionable elements which affect these models, in particular the fact that they are considered as a "novelty" which represents a important marketing obstacle.

Rental cooperative with member investment

This formula is closest to the regular rental cooperative model. It is simple to explain: the member is a tenant (a situation which he/she is already in) and the member gets back solely the money which he/she invested therein: reimbursement of the money used to reduce the mortgage principal.

The main drawback of the "rental with investment" model is its low return. The amount of capital withdrawn is minimal for a certain number of years.

One difficulty which these cooperatives could experience is the necessity of coming up with the sums necessary to reimburse the partnership shares during periods where there are no mortgage renewals. The resignation of certain members who remain tenants could also pose a problem: the cooperative would have to reimburse their shares without benefitting from any compensating sums from new members.

Over time, the occupancy charges for similar units in the same cooperative could end up varying widely depending on the tenant turnover rate.

Cooperative with right of occupancy and independent equity

Under this formula, there is a very clear breakdown of the commitments and there is greater flexibility of use: the member and the cooperative handle their respective mortgages as they wish.

The most serious difficulty generated by a new product which is based on a right of occupancy are marketing and access to financing. Whether one is talking about the public at large or the lenders, the innovative aspect of the formula is likely to impede its development. Who will be the first to purchase an occupancy right? Which financial institution will be first to accept to grant a mortgage with such a guarantee? How will this "right" perform on a secondary market (resale price)? The model also has a high level of complexity which makes it difficult to explain to new members.

Cooperative with interdependent equity

The main selling point of this model is that it offers a higher return for the members. In this respect, it is quite similar to products offered on the private residential market. On the other hand, the absence of any equity for the cooperative makes the organization fragile in periods of deficit or when faced with the need for extraordinary funds, and does not allow the cooperative any development possibility.

The models presented in this research notebook are made up of an assembly of interchangeable elements. Thus in model 1, i.e., rental cooperative with member investment, the agreement between the tenants-investors could provide for a sharing of the amounts reimbursed on the mortgage and of any appreciation in the units' values, for example 75% to the member and 25% to the cooperative, as in model 2.

It is also possible to credit the cost of the occupancy right (model two) entirely to the member. When the unit is resold to a new buyer, the sale price arrived at in a supply/demand situation would be totally applied to the member, as in model three.

Lastly, the agreement between the partners (model three) could stipulate that the member will only recover the investments that he/she made, i.e., the downpayment and the amount reimbursed against the principal of the collective mortgage, as in model one.

4.2 POSSIBLE IMPROVEMENTS

The models described in this research study would be difficult to market without improvements. They are aimed at the same target groups as projects already offered to consumers while, in the best of cases, providing no more than the same return on investment, but without the guarantees of the legal lien on the property. To be successful on a competitive market, it would be advantageous for equity housing cooperatives formulae to be focussed on slightly different client groups, with financial mechanisms adapted to this purpose. A specific "cooperative advantage" associated with each formula would then offset any lower return on investment.

First of all, the use of the undivided co-ownership formula rather than the divided formula could prove less expensive: one mortgage for the cooperative, savings on legal fees, on surveying fees, on mortgage renewals, etc. Secondly, and as a supplement, it would be necessary to have different mortgage products which would include financial arrangements which are more flexible, and better adapted to the needs of the various formulae and of particular client groups: zero downpayment, minimal downpayment, progressive downpayment or shared with a third party, preferential interest rates, graduated payment mortgage, longer amortization period, etc.

Recourse to external financing sources, even if it is not part of this presentation on equity housing cooperative models, is not to be excluded. In order for these formulae to distinguish themselves from options which already exist on the market, they will perhaps need an initial "boost" when they are first implemented. Grants or equity loans²⁴ could thus represent ad hoc assistance, intended for the first generation members. If the cooperative recovers a part of the appreciated value of the units, it could subsequently facilitate access to the members of future generations, by decreasing, for example, the initial downpayment required from the members.

One stakeholder interested in development of new housing cooperative formulae is the cooperative sector itself, particularly its federations. Any support from the regional level could take several forms. First of all, participation in the definition of the parameters of the new formulae and in setting up of these cooperatives:

- research and development activities on one or more of the new equity housing cooperative models;
- showing leadership when requests are made for amendments in laws or regulations to promote the growth of these cooperatives;
- negotiations with financial institutions to make new mortgage products available;
- promotion and marketing of one or more of the new financing formulae;
- grouping together of individuals interested in participating in these cooperatives;
- training of participants: cooperative principles, structuring of the organization, how the association operates, management training; special training for this new type of cooperative endeavor in the field of housing would have to be developed.

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Coming for example from governments, financial institutions, cooperative housing federations, etc.

It is also possible that the scope of this intervention extend to the actual execution of projects. Thus a reduction in execution costs could be realized if the upper levels of the cooperative movement took on responsibility for a maximum number of development stages: intervention at the construction stage to reduce the cost: architecture, purchase of materials, execution and supervision of work, etc.

Lastly, support could be provided in financial terms: collection and management of funds, interim financing during construction work, assistance to low-income members in putting together their downpayment. In exchange, a formula could be adopted whereby the regional cooperative group could recover a percentage of the appreciation in value for the development of new housing cooperatives.

4.3 RESEARCH AVENUES

This research notebook outlines an exploratory measure featuring the equity housing cooperative. Other studies will be necessary to stipulate the parameters of these products and to make them operational. A few research avenues intended to improve the formulae as described have already been identified in the preceding section. This list is certainly far from exhaustive as there are many other themes which should be examined.

4.3.1 Economic Aspects

- a) The key element underpinning these new housing cooperatives formulae seems to be the availability of adapted mortgage products. Thus, such elements as reduced downpayments, zero downpayments or downpayments assumed jointly with a third party, could be studied, as well as the possibility of using sums already invested in registered retirement savings plans (RRSP) for downpayment purposes.

It is also possible to bring into play other mortgage financing aspects: reduced interest rates, longer amortization period, graduated payment mortgage (acceptance of lower monthly payments initially to be compensated by higher monthly payments later on once the cooperative's financial situation improves²⁵) etc.

- b) The availability and the cost of mortgage insurance for new types of products will have to be studied with the agencies providing this service and possibly with other stakeholders who could assume similar roles.
- c) For any formula based on a right of habitation, we should proceed with an analysis to determine the value of such a right on the market, the possibility of using mortgage loans to purchase this right and of obtaining mortgage insurance for these transactions.
- d) Any scenario for a new type of financing for equity housing cooperatives will have to take into consideration the consequences of payment default by members. If the cooperative holds the mortgage and establishes an agreement with the members who undertake to make the payments, a member of the cooperative may well end up in a position where it is impossible for him/her to respect his/her commitments. The consequences of such a situation would have to be established and a decision would have to be made as to the recourse which the cooperative would have vis-à-vis a delinquent member. Would the other members have to assume the delinquent member's share, which would increase their financial charge? Is insurance available against this type of problem?

25 See text of QHC and QCHC task force, Joint report of task force, Montreal, Quebec Housing Corporation and Quebec Confederation of Housing Cooperatives, October 1989, 115 p.

4.3.2 Legal Aspects

- a) In case where "right of habitation" is used it would be useful to clearly identify the total scope of this concept in the Civil Code.
- b) Similarly, the new formulae will have to be assessed in light of Articles 128 and 129 in the Loi sur les coopératives (Cooperative Corporations Act) specifying that:
 - "128. The activity in which a cooperative is engaged with its members does not represent a business operation nor does it represent a means of profit."
 - "129. A member shall not obtain from his/her cooperative goods and services to be resold at a profit."
- c) An "intertwining" mortgage, in conjunction with the undivided co-ownership formula, would ensure the members that they had a legal lien on the fraction of the property being held by each of the members. In case of default by one of the partners, this mechanisms would make it possible for all the participants to recover the housing unit.
- d) The definition of the characteristics of the new formulae and of the resulting commitments between the parties should give rise to the preparation of specific agreements.

4.3.3 Fiscal Aspects

- a) Straight rental cooperatives are considered as "non-profit" organizations and do not pay any income tax. Would this be true for the new formulae? What would be the fiscal consequences be for the cooperative if it were to realize part of the property's appreciation in value?

- b) The question can also be posed for the return withdrawn by the members on their investment: will the mortgage share credited as partnership shares be considered as taxable income or as simple savings? Similarly, will the appreciation in value be considered as a taxable income, as a capital gain and thus benefitting from \$100 000 exemption (for life, per individual) or as being exempt from taxes completely due to the fact that it is a main residence (unlimited)?

4.3.4 Marketing Aspects

- a) It is of prime importance that the formula or formulae developed be simple to explain and to manage.
- b) The demand for such products has not been quantified but it is generally known that several technical resource groups and a few housing cooperative federations are in contact with groups of people interested in the "equity"²⁶ formula. There seems to exist a "niche" on the residential real estate market offering potential for development. An analysis of the pertinence of the formulae being studied should include a study of the potential demand in Quebec for these types of tenure. This study should be developed in such a way as to take into consideration the regional factors, corresponding to each market. It should be a tool which can be used by the stakeholders for market studies in each specific area.
- c) The market study may reveal the existence of diversified potential client groups for which it will be necessary to develop specific products. Thus, the needs of young families and independent people nearing retirement will not be the same. The first group often have little capital, growing incomes and are seeking residences as a means

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See André POULIN, Notes on Equity Housing Cooperative Workshops, Montréal, June 1990, 7. p.

to save. The more elderly households in a position to participate in these formulae have more capital to invest, but are not as concerned with the return on investment aspect as in finding a safe haven for their savings and, even more important, in security of tenure and in having specific services adapted to their needs.

- d) As is always the case for new products, a marketing strategy will have to be developed.

4.3.5 Cooperative Aspects

While continuing the development of straight rental cooperatives, several levels within the housing cooperative movement in Québec and in Canada (national, regional federations, and the Québec Confederation) are already experimenting with innovative formulae to make it possible to reach new client groups. But what will their role be in the implementation, on a large scale, of equity cooperatives? We have identified a certain number of measures possible in the section dealing with improvements to be made in the various models (see 4.2 - Possible Improvements), but other interventions can also be pointed out. To ensure that the new formulae have a significant impact on the development of the cooperative housing sector in Quebec, it would be necessary to set up mechanisms allowing for a certain concentration of financial instruments.

- a) An initial means would be the pooling of the savings of individuals interested in joining a housing cooperative which requires an initial downpayment. For the members of rental cooperatives wishing to become members of an equity cooperative, they might well see the latter as a veritable house savings plan. A regional federation of housing cooperatives could be established and manage such a mechanism.

- b) A second instrument which the centralization of financial resources could produce is a development fund. Pooling together the savings and the reserves of existing cooperatives, and of those which would be set up under the new formulae, would promote growth of the sector (purchase of land or buildings, interim financing, assisted downpayment, second mortgage, etc.). Once again, the regional cooperative structures could be the initiators of these projects and could act as trustees to handle the funds.
- c) Representations could also be made by the various levels within the cooperative movement so that the two above-mentioned instruments allow those providing funds to benefit from specific tax benefits (exemption, deduction, eligibility for a RRSP, etc.).
- d) Another aspect of the development of new formulae which could apply to second and third generation cooperatives is the development of protection mechanisms to ensure the cooperative's longevity and the maintenance of collective nature of the assets managed by the equity cooperatives. The objective here is to avoid the situation where members appropriate group assets, for example, by modifying the by-laws of the agency to convert the units into divided co-ownership units held individually. One possibility to be studied would be the creation of a real estate trust which would hold property rights on the lot and would limit the conversion possibilities.
- e) One of the characteristics of rental housing cooperatives, mixture of clients, could perhaps be introduced in equity cooperatives. Several aspects of this practice would require in-depth study, however, to allow low-income households to join in this type of project: here are a few avenues concerning downpayment, occupancy charge and return on investment:

- downpayment: could be advanced by an outside agency as an interest free loan, for example and it would be reimbursed through minimum monthly payments by the cooperative or by the member, from his/her rent;
- occupancy charge: use of the government supplement plan available for units on the private market;
- return: would be attributed to the cooperative or to the member, whichever of the two reimbursed the interest free loan; in the meantime, the agency which advanced the downpayment could recover the return on the investment, or waive this, so as to maintain the lowest possible occupancy charges.

Diversity of income and integration of various social categories are examples of elements which are thoroughly appreciated in rental cooperatives²⁷ and which should be included in these new formulae.

Based on this outline of the strengths and weaknesses of the formulae, the improvements suggested and the list of research subjects possible, it is observed that equity housing cooperatives, although they represent a interesting development potential, require both additional studies and the implementation of pilot projects before becoming fully operational.

C O N C L U S I O N

The goal of this research project is to define equity housing cooperatives, to present financing models intended for housing cooperatives which could develop independently of any pre-existing system or grant program in the sector. The text describes the characteristics which are common to the three formulae chosen, their operating principles and their performances in particular scenarios. The strengths and weaknesses of each of the types were identified as well as improvements which would be possible to make in them and the research avenues which they open up.

²⁷ See CMHC (1990), op. cit., p. 155-161.

The results show that the models, as formulated in this research project, have very little chance of success if they are put in competition with the private first-time buyer market. As a conclusion to this exploratory study, it is nevertheless possible to identify four elements which emerge as conditions for further development of equity housing cooperatives:

- 1) a downpayment which would come either from an internal source (the members, the cooperative) or from an external source (governments, cooperative sectors, financial institutions, non-profit corporations acquiring property for cooperatives, charitable organizations, etc.) or from a combination of these two sources;
- 2) agreements with financial institutions should be provided for (adapted mortgage instruments, preferred interest rates, etc.);
- 3) negotiations with the governments would be necessary to obtain support to get these new formulae off the ground (assisted downpayments for the first generation) and, depending on the choice of the target client groups, certain specific assistance tools (rent supplements for low-income households);
- 4) the terms and conditions for equity sharing between the cooperative and the members shall allow the cooperative to set up its own capital fund under collective control, so as to ensure good long-term viability conditions for the cooperative.

As general hypotheses, it can be assumed that residential projects executed under these new formulae would be made up of the following elements:

- a) a target client group formed mainly by mid-income families with a small amount of savings and elderly households with capital to invest;
- b) projects executed using adapted mortgage products, in conjunction with external financial contributions;
- c) limited return on members' investments;
- d) a certain proportion of units reserved for low-income households.

The greatest difficulty is to find a mortgage instrument making it possible to execute real estate projects with low downpayments or downpayments from various sources, while at the same time giving the lenders a sense of security. The targeted market would be made up of households willing to accept a return on investment lower than that offered on the market (to which many of these people do not have access, in any case) as trade-offs to obtain an original solution to their housing problems.

The exterior contributions come from many sources, including governments. There could even be double incentives for governments to support this type of innovation in the housing sector:

- a) this would make access possible for certain categories of the population to a certain form of property ownership which introduces them to the first-time buyer market;
- b) this would assist underprivileged households using a proven formula; as attest the results of the cooperative sector with the straight rental model, mixing client groups is an economically and socially viable solution making it possible for various social categories to live together.

One question which was not dealt with in the text, but which will determine the orientation of the formulae, is that of leadership in the development of equity housing cooperatives, particularly in Quebec. The various levels of the cooperative movement are probably in the best position to assume this function. They already have in their arsenal an array of instruments necessary to explore this new universe: experience in project development, training resources, beginning of a centralization of financial tools, etc.

The components within this sector can also count on a network of relations and have built up a "credibility capital" with the various stakeholders in the rental cooperative housing field and whose collaboration would be necessary in the development of new formulae: cooperative financial institutions, para-governmental corporations (CMHC, QHC, Cooperative Development Corporation, para-municipal corporations, etc.) and technical resource groups.

It would probably be desirable for the housing cooperative movement to be the leader in this development effort rather than attempting to follow-up on scattered and uncontrolled development attempts. Failure of the latter could be very bad for the image of cooperatives as a whole. On the other hand, diversification of housing cooperative products would allow for the integration of client groups or sectors within the population who have not been successful in finding, on the private market, nor in the use of the rental cooperative formula, answers to their housing needs (mid-income rental households with small savings, independent elderly homeowners with high level of equity in their homes).

One alternative to existing markets (rental market and homeownership) would also likely be of interest to a number of households currently living in cooperatives and who, although they have certain amount of savings, are not in a position to buy properties and do not wish to return to the private rental market. They could find, in an equity cooperative, an answer to their housing investment needs. This type of transfer would have as a corollary the freeing-up of units which are highly subsidized in rental cooperatives for the benefit of new households with lower incomes.

If we were to extrapolate this study in a long-term vision, it is easier to imagine the implementation of a certain number of cooperative housing formulae (rental, equity, "condo-coop", construction, rooming house, for the elderly, etc.) making it possible for individuals to find answers to their housing needs at various stages of their lives. The implementation of a "cooperative housing cycle" would make it possible for them to go from one cooperative formula to another as their financial, family and physical conditions change.

If the current movement wishes to go further along this avenue, the primary objective remains the implementation of equity housing cooperatives. As pertains to what can be referred to as the "internal policies" of the movement, this will require a broadening of the scope of the cooperative instrument in the area of housing. From its initial status

as quasi-social housing, where the associative aspect and the concept of use dominated²⁸, the "cooperative vision" henceforth will have to incorporate the role of capital in the whole corporation which will make it necessary, in turn, to take into consideration notions of investment and return on investment.

Regardless of the promoter and of the formula chosen, other studies and projects will be necessary before any new types of cooperative housing are given the green light to participate in the expansion of the cooperative movement in Quebec.

²⁸ With the economic aspect becoming a "position advantage".

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A P P E N D I C E S

1 - HOUSING COOPERATIVES PROCLAMATION

2 - GLOSSARY

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APPENDIX 1HOUSING COOPERATIVE PROCLAMATION

AS ADOPTED BY THE ORGANIZATION ASSEMBLY

HELD MARCH 18, 19 AND 20, 1977

"The goal of the proclamation is to state the common values and basic principles of housing cooperatives which will be used for reference in any action undertaken in the cooperative housing movement.

1. A sound housing policy must recognize the right of everyone to housing and apply this right in practice to satisfy the needs of everyone in housing rather than promoting research which only profits a few people.
2. To meet the housing needs of people and to promote egalitarian social and human relations while facilitating the task of individuals to exercise their right to suitable housing, we advocate the development of an authentic cooperative movement in the housing sector.
3. A cooperative housing movement must make it possible for all to have access to suitable housing, at a reasonable cost.

A cooperative housing movement must always be based on the initiative of the members themselves, it must respect and promote active participation and control by the members of particular projects and of the movement, as a whole.

A cooperative housing project must form, and remain, a collective property, which seeks out collective as opposed to individual capital.

4. The cooperative housing movement must educate and train its members and broaden their horizons to other dimensions and problems in their neighborhood and in society.

Extract from the Organization Assembly of Quebec Housing Cooperatives, Sherbrooke, March 18-19-20, 1977, Sherbrooke, published by the Interim Committee - Quebec Housing Cooperatives, second quarter 1977, p. 31.

APPENDIX 2

GLOSSARY OF MAIN MORTGAGE TERMS¹

AMORTIZATION: corresponds to the number of years necessary to totally reimburse the mortgage debt. The amortization period usually varies between 15 and 25 years; it may be extended to 30 years.

MORTGAGE INSURANCE: "Mortgage insurance protects the lenders against losses incurred through default in payment by the borrowers." (CMHC)²

It is mandatory if the loan granted exceeds 75% of the lending value (market value) of a house.

The premium for such insurance represents a percentage of the loan. As of the summer of 1990, the maximum premium was 3% of the loan value. The amount is paid by the borrower in lump sum form or added to loan amount.

Mortgage insurance is available from two institutions: Canada Mortgage and Housing Corporation and the Mortgage Insurance Company of Canada.

PRINCIPAL: "the amount which you have to pay the lender." (MICC)²

EQUITY: sum of capital invested in the corporation, i.e., the total debts, shares, surpluses, etc. In this text, this term generally corresponds to the downpayment, to the membership share capital, to the amount of the principal reimbursed for the mortgage share, and any appreciation in value which applies to the housing unit.

GROSS DEBT SERVICE RATIO: used to establish the maximum price which a household can pay, considering its income, to reimburse the mortgage loan (varies between 30% and 32%). Also called the GDS ratio or the shelter/income ratio.

CONDITIONS: "any special provisions relative to your mortgage. They may have a serious effect on the amount which your mortgage will end up costing you." (MICC)

MORTGAGE CONTRACT: "written agreement concluded between the borrower and the lender stipulating the terms and conditions of the loan (see "mortgage")." (CMHC)

¹ These terms are not all used in the text but are part of the residential real estate market vocabulary.

² Information coming from information brochures published by CMHC: Canada Mortgage and Housing Corporation and MICC: Mortgage Insurance Corporation of Canada.

APPENDIX 2

AGREEMENT/LEASE: written agreement which binds the owner and the occupants of a housing unit.

UNDIVIDED CO-OWNERSHIP: all the co-owners are equal owners of the real estate project but, by agreement, reserve the use of one unit. The property is encumbered with only one mortgage and each of the signatories is jointly and severally responsible for respecting the total obligations, including the co-owners commitment vis-à-vis the balance of the sale price.

DIVIDED CO-OWNERSHIP: each of the co-owners has exclusive ownership of one unit within the project, whereas the common parts are under the ownership of the group of co-owners. Each co-owner contracts a conventional mortgage which covers the value of the unit occupied and for which the co-owner takes full responsibility.

EXECUTION COST: construction or renovation costs of housing units including related fees (see this expression).

OPERATING COSTS: expenses necessary to insure the longevity of the corporation providing the units: taxes, insurance for common areas, maintenance/repairs, energy, administration and auditing fees. In the models described in this document, we also include within the operating costs, the cost of heating the units and for setting up a replacement reserve.

DEFAULT: "failure to comply with the terms and conditions of the mortgage contract, usually failure to make monthly payments at the date set in the contract." (CMHC)

PREEMPTION RIGHT: priority to purchase before someone else.

RIGHT OF USUFRUCT/OCCUPANCY: the "right of occupancy" is based on Articles 443 and following in the Civil Code of the Province of Quebec which deal with usufruct and the right of habitation.

Usufruct is the right of enjoying things of which another has the ownership, as the proprietor himself. When applied to a house, right of use is called the right of habitation (or of "occupancy"). He who has a right of use can neither assign or lease it to another.

EQUITY: "The difference which exists between the market value of a property at a given point in time and the total amount of mortgage loans encumbering it at the same point in time represents what certain people refer to as "equity" and which can also be called liberated value or net realization value. This value is a capital which lies dormant."³

3

André RIENDEAU et al, Legal mechanisms likely to encourage financial independence of housing cooperatives, Montreal, UQAM, Spring 1982, p. 7.

APPENDIX 2

FORECLOSURE: "seizure of a real estate asset by court order subsequent to default in payment of the mortgage encumbering said property." (CMHC)

CONSTRUCTION RELATED FEES: servicing of the land, architect's fees, insurance during construction, notary's fees, fee for opening files, surveying, lot levies, initial training of members, etc.

MORTGAGE: "a real right encumbering a property granted to the lender by the owner of the property to guarantee reimbursement of a loan." (CMHC)

"a loan with a registered mortgage contract pledged as a guarantee. In other words, the house is security for the loan." (MICC)

INTEREST: "the amount which you pay for the use of funds (principal) belonging to the lender. Each mortgage payment will have two components - a certain amount which is applied against the interest and another component applied against the principal." (MICC)

DOWNPAYMENT: "the owner's initial investment, i.e., the value of the property after deduction has been made for the charges with which it is encumbered. Usually the difference between the principal amount of the mortgage loan and the total value of the property." (CMHC)

"You have to provide a minimum downpayment of 10% of the value of the property, from your own resources...". (CMHC)

P.I.: "the amount of principal and interest payable each month on a mortgage loan." (CMHC)

P.I.T.: "the amount of principal and interest and real estate taxes payable each month on a mortgage loan." (CMHC)

P.I.T.H.: "the amount of principal, interest and real estate taxes and heating payable each month on a mortgage loan." (CMHC)

APPRECIATION: growth in real value of an asset; potential difference between purchase price and sale price.

INSURED FIRST MORTGAGE: "lending institutions are in a position to offer mortgage financing making it possible to borrow up to 90% of the value of the property. They can offer you these mortgage loans with modest downpayments thanks to mortgage insurance which grants substantial protection to the lender against losses occurring subsequent to default by the borrower to make mortgage payments." (MICC)

CONVENTIONAL FIRST MORTGAGE LOAN: "if you have sufficient savings to make a downpayment of at least 25% of the estimated value or the purchase price of the property, whichever is lower, you can borrow up to 75% of the value of the property under a conventional first mortgage." (MICC)

APPENDIX 2

EQUAL PAYMENT MORTGAGE (or closed mortgage): "contract which does not allow any prepayment of the mortgage loan principal for a determined period." (CMHC)

MORTGAGE LOAN WITH PREPAYMENT OPTION (or open mortgage): "contract which makes it possible to prepay all or part of the principal at a particular moment prior to the end of the term, with or without a penalty being claimed from the borrower." (CMHC)

FIXED RATE MORTGAGES: "the traditional mortgage where the interest rate is set for the complete mortgage term." (MICC)

FLOATING RATE MORTGAGE LOAN (or variable rate): "a mortgage where the payments may be set for the term but where the interest rate may change monthly depending on market conditions. The consequences of a variable rate mortgage loan: if the rate increases, either your monthly payments increase or your current balance increases. If the rate decreases, either your payment decreases or you reimburse the principal amount at a faster pace than stipulated in the original contract." (MICC)

INSURED MORTGAGE LOAN: "mortgage loan for which the lender is insured against payment default by the borrower." (CMHC)

NON-INSURED MORTGAGE LOAN: "mortgage loan where the lender is not insured against payment default by the borrower." (CMHC)

PRINCIPAL: "the unpaid amount of the mortgage debt." (CMHC)

PREPAYMENT PRIVILEGE: "provision which makes it possible for the borrower to prepay, either completely or partially, the principal amount earlier than the due date as stipulated in the mortgage contract." (CMHC)

PROROGATION: "an agreement concluded between the lender and the borrower stipulating the extension of the mortgage term at its expiry date." (CMHC)

GDS RATIO: See Gross Debt Service Ratio.

REFINANCING: obtaining a new or an additional mortgage loan. Operation which usually occurs at the end of the term. Consists in renegotiating the clauses of the agreement between the creditor and the debtor (interest rate, mortgage amount, amortization period).

PARTIAL REPAYMENT: "the payment of a lump sum amount to the lender to decrease the amount of the mortgage loan principal." (CMHC)

RENEWAL: operation at the end of the term which may involve changes in the conditions of the mortgage but does not affect the amount borrowed.

REPLACEMENT RESERVE: reserve set up to absorb large capital costs produced by the normal wear and tear on the buildings over time.

APPENDIX 2

SHELTER INCOME RATIO: see "Gross debt service ratio".

TERM: "the contractual period during which the borrower is to make a determined series of payments to a lender at the end of which the unpaid principal becomes payable." (CMHC)

"the duration of the present agreement. The most common terms are six months, one year, three years or five years at the end of the term, one may, either pay the balance the principal, or negotiate a new mortgage at the rate in force at that time." (MICC)

LENDING VALUE: "the appraised market value of the property, usually but not necessarily the property sale price." (CMHC)

NET VALUE (or "equity"): the difference between the market value and current mortgage.

(DETERMINATION OF) VALUE: "The Municipal Taxation Act stipulates that the value of an appraised unit is its exchange value on a free market open to competition. This exchange value corresponds to the most probable price to be paid at a sale between two consenting parties..."⁴. In order to determine the value for the land assessment role, the assessment departments in the municipalities use three different approaches:

- " - **Cost Approach** which makes it possible for the appraiser, based on a detailed inspection of the building and on pertinent information concerning the site, to establish the replacement cost for the unit. The appraiser proceeds in much the same manner as a contractor about to make a tender based on plans and specifications. Using this approach, depreciation must also be taken into consideration.
- **The Direct Sales Comparison Approach** makes it possible for the appraiser to form an opinion as to the value of the property to be appraised based on transactions involving comparable properties, taking into consideration, of course, all the differences characterizing these properties which have been involved in transactions and the unit to be appraised. In other words, the appraiser analyzes the market based on properties which have been involved in sales and applies his/her observations to the property to be appraised.

4

Extract from an information sheet published by the City of Longueuil, Municipal Assessment, Longueuil, May 1988.

APPENDIX 2

- **The Income Approach** is used for income generating properties. The appraiser uses income as a basis for determining property value, knowing that there exists a close relation between an investment (the value) and a return on an investment (income). A certain number of actualization methods are available for this approach which provide the appraiser with a very valid indication in his/her search for the value of properties of this type."⁵

5

Extract from an information sheet published by the Québec Urban Community, Why and how to conduct an appraisal of your property?, Quebec, QUC, 1989.

APPENDIX 3

THE RIGHT OF HABITATION

The right of habitation (which is also referred to as "occupancy right") is based on Articles 443 and following in the Civil Code of Lower-Canada dealing with usufruct and the right of habitation (see extracts from Civil Code at the end of this Appendix).

A cooperative could sell an exclusive right of use of a unit to a member. The latter would have to put together the necessary downpayment to purchase this right. Subsequently, he/she would have to contract a mortgage, still based on this right. The cooperative could proceed with a grouping of mortgages from the same lending institution. The financial participation of the member would thus include a downpayment when he/she first purchases the unit and monthly payments to reimburse the mortgage and to assume his/her share of the operating expenses, including the creation of reserves (general and replacement reserves).

Over time this right could acquire a certain amount of value, as a result of an increase in the value of the property and of the law of supply and demand for this particular type of product. When the member leaves the coop, he/she could realize a profit by selling this right. Since this profit would be the consequence both of good property management as well as the effect of the market, it should be shared between the group and the individual, i.e., between the cooperative and the members. These proportions remain to be determined. The new member starts the process once again: a downpayment on the new value of the unit and a loan to finance the balance.

Ownership of the capital assets remains collective and the cooperative reserves a preemption right in choosing new residents. In addition to the advantages of collective property, security of tenure, and the democratic management system which are the characteristics of existing cooperatives, the sale with a right of habitation formula would have additional advantages, i.e., dividing the appreciation in value of the unit between the members and the cooperative.

APPENDIX 3

The major difficulties for a new product with this right of habitation component are marketing and access to financing. Both as far as the public at large is concerned as well as the lender, the innovative aspect of the formula is likely to impede its development. Who is going to be the first to purchase the right of habitation? What financial institution is going to accept to grant a mortgage with such a guarantee? What will the performance of this right be on the secondary market (resale price)?

Other aspects have to be studied to determine how pertinent it would be to go ahead with a product of this type: the limits of this right, compliance with the Cooperative Act, taxation and capital gains, precarious position of the cooperative during the first few years (without any funds of its own), consequences of member default, etc.

APPENDIX 3**EXTRACT OF THE CIVIL CODE OF LOWER-CANADA****USUFRUCT**

Art.

443. Usufruct is the right of enjoying things of which another has the ownership, as the proprietor himself, but subject to the obligation of preserving the substance thereof.
446. It may be established on property of all kinds, movable or immovable.
457. The usufructuary may enjoy his right by himself, or lease it, and may even sell it or dispose of it gratuitously.
462. The proprietor cannot, by any act whatever injure the rights of the usufructuary.
- On his side, the usufructuary cannot, at the cessation of the usufruct, claim indemnity for any improvements he has made, even when the value of the thing is augmented thereby.
468. The usufructuary is only liable for the lesser repairs. For the greater repairs the proprietor remains liable unless they result from the neglect of the lesser repairs, since the commencement of the usufruct, in which case the usufructuary is also held liable.

OF USE AND HABITATION

487. A right of use is a right to enjoy a thing belonging to another and to take the fruits thereof but only to the extent of the requirements of the user and of his family.
- When applied to a house, right of use is called of habitation.
494. He who has a right of use can neither assign or lease it to another.
497. A right of habitation can neither be assigned nor leased.

APPENDIX 4TABLE OF SCENARIOSRECAPITULATION OF BASIC DATA

Line 1 -	<u>VALUE OF THE UNIT</u>	\$70 000 and \$90 000, increase of 3% per year; value after 5, 10, 15, 20 and 25 years
" 2 -	<u>DOWNPAYMENT</u>	10% of line 1
" 3 -	<u>MORTGAGE</u>	90% of line 1
" 4 -	<u>MONTHLY MORTGAGE PAYMENTS</u>	Interest rates: 12% - 14% - 16% Amortization period: 25 years
" 5 -	<u>MONTHLY OPERATING COSTS</u>	\$225 to \$250, increase of 5% per year; monthly costs after 5, 10, 15, 20 and 25 years
" 6 -	<u>TOTAL MONTHLY COST</u>	total of lines 4 and 5
" 7 -	<u>MORTGAGE BALANCE</u>	at the end of each five-year period
" 8 -	<u>SHARE OF MORTGAGE REIMBURSED</u>	at the end of each five-year period
" 9 -	<u>APPRECIATION</u>	at the end of each five-year period
" 10 -	<u>EQUITY TO SHARE</u>	between the member and the cooperative, at the end of the five-year period

TABLES 1 TO 6 New mortgage for the new value and at the same conditions every five years. The first column shows the initial situation of the first resident. The following columns show the conditions, every five years, for new members (lines 1 to 6) and for the last member (lines 7 to 10).

TABLES 7 TO 12 Situation of the member occupying the unit for 25 years, with the same mortgage conditions being kept for the whole amortization period.

APPENDIX 4

TABLE 1

NEW MORTGAGE EVERY FIVE YEARS

VALUE OF THE UNIT: \$70 000
MORTGAGE RATE : 12%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

TIMEFRAME

	5	10	15	20	25
1- VALUE OF THE UNIT	70 000	81 149	94 074	109 058	126 428
2- DOWNPAYMENT	7 000	8 115	9 407	10 906	12 643
3- MORTGAGE	63 000	73 034	84 667	98 152	113 785
4- MONTHLY MORTGAGE PAYMENTS	650.10	753.64	873.68	1 012.83	1 174.15
5- MONTHLY OPERATING EXPENSES	225.00	287.16	366.50	467.76	596.99
6- TOTAL MONTHLY COST	875.10	1 040.80	1 240.18	1 480.59	1 771.14
7- MORTGAGE BALANCE	60 139.90	69 718.37	80 823.25	93 696.05	108 619.34
8- SHARE OF REIMBURSED MORTGAGE	2 860.10	3 315.63	3 843.75	4 455.95	5 165.66
9- APPRECIATION	11 149.00	12 925.00	14 984.00	17 370.00	20 136.00
10- EQUITY TO BE SHARED	14 009.10	16 240.63	18 827.75	21 825.95	25 301.66

APPENDIX 4

TABLE 2

NEW MORTGAGE EVERY FIVE YEARS

VALUE OF THE UNIT: \$70 000
MORTGAGE RATE : 14%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

TIMEFRAME

	5	10	15	20	25
1- VALUE OF THE UNIT	70 000	81 149	94 074	109 058	126 428
2- DOWNPAYMENT	7 000	8 115	9 407	10 906	12 643
3- MORTGAGE	63 000	73 034	84 667	98 152	113 785
4- MONTHLY MORTGAGE PAYMENTS	739.54	857.33	993.89	1 152.18	1 335.70
5- MONTHLY OPERATING EXPENSES	225.00	287.16	366.50	467.76	596.99
6- TOTAL MONTHLY COST	964.54	1 144.49	1 360.39	1 619.94	1 932.69
7- MORTGAGE BALANCE	60 858.86	70 551.84	81 789.47	94 816.17	109 917.14
8- SHARE OF REIMBURSED MORTGAGE	2 141.14	2 482.16	2 877.53	3 335.83	3 867.14
9- APPRECIATION	11 149.00	12 925.00	14 984.00	17 370.00	20 136.00
10- EQUITY TO BE SHARED	13 290.14	15 407.16	17 861.53	20 705.83	24 003.14

APPENDIX 4

TABLE 3

NEW MORTGAGE EVERY FIVE YEARS

VALUE OF THE UNIT: \$70 000
MORTGAGE RATE : 16%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

<u>TIMEFRAME</u>	5	10	15	20	25
1- VALUE OF THE UNIT	70 000	81 149	94 074	109 058	126 428
2- DOWNPAYMENT	7 000	8 115	9 407	10 906	12 643
3- MORTGAGE	63 000	73 034	84 667	98 152	113 785
4- MONTHLY MORTGAGE PAYMENTS	831.01	963.37	1 116.82	1 294.69	1 500.90
5- MONTHLY OPERATING EXPENSES	225.00	287.16	366.50	467.76	596.99
6- TOTAL MONTHLY COST	1 056.01	1 250.53	1 483.32	1 762.45	2 097.89
7- MORTGAGE BALANCE	61 409.37	71 190.04	82 529.33	95 673.86	110 912.15
8- SHARE OF REIMBURSED MORTGAGE	1 590.63	1 843.96	2 137.67	2 478.14	2 872.85
9- APPRECIATION	11 149.00	12 925.00	14 984.00	17 370.00	20 136.00
10- EQUITY TO BE SHARED	12 739.63	14 768.96	17 121.67	19 848.14	23 008.85

APPENDIX 4

TABLE 4

NEW MORTGAGE EVERY FIVE YEARS

VALUE OF THE UNIT: \$90 000
MORTGAGE RATE : 12%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

TIMEFRAME

	5	10	15	20	25
1- VALUE OF THE UNIT	90 000	104 335	120 952	140 217	162 550
2- DOWNPAYMENT	9 000	10 434	12 095	14 022	16 255
3- MORTGAGE	81 000	93 901	108 857	126 195	146 295
					169 596
4- MONTHLY MORTGAGE PAYMENTS	835.84	968.96	1 123.29	1 302.21	1 509.62
5- MONTHLY OPERATING EXPENSES	250.00	319.07	407.22	519.73	663.32
					846.58
6- TOTAL MONTHLY COST	1 085.84	1 288.03	1 530.51	1 821.94	2 172.94
					2 596.64
7- MORTGAGE BALANCE	77 322.73	89 638.04	103 915.06	120 465.94	139 653.44
8- SHARE OF REIMBURSED MORTGAGE	3 677.27	4 262.96	4 941.94	5 729.06	6 641.56
9- APPRECIATION	14 335.00	16 617.00	19 265.00	22 333.00	25 890.00
10- EQUITY TO BE SHARED	18 012.27	20 879.96	24 206.94	28 062.06	32 531.56

APPENDIX 4

TABLE 5

NEW MORTGAGE EVERY FIVE YEARS

VALUE OF THE UNIT: \$90 000
MORTGAGE RATE : 14%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

TIMEFRAME

	5	10	15	20	25
1- VALUE OF THE UNIT	90 000	104 335	120 952	140 217	162 550
2- DOWNPAYMENT	9 000	10 434	12 095	14 022	16 255
3- MORTGAGE	81 000	93 901	108 857	126 195	146 295
					169 596
4- MONTHLY MORTGAGE PAYMENTS	950.84	1 102.28	1 277.85	1 481.37	1 717.32
5- MONTHLY OPERATING EXPENSES	<u>250.00</u>	<u>319.07</u>	<u>407.22</u>	<u>519.73</u>	<u>663.32</u>
					846.58
6- TOTAL MONTHLY COST	1 200.84	1 421.35	1 685.07	2 001.10	2 380.64
					2 837.43
7- MORTGAGE BALANCE	78 247.10	90 709.64	105 157.34	121 906.09	141 322.96
8- SHARE OF REIMBURSED MORTGAGE	2 752.90	3 191.36	3 699.66	4 288.91	4 972.04
9- APPRECIATION	<u>14 335.00</u>	<u>16 617.00</u>	<u>19 265.00</u>	<u>22 333.00</u>	<u>25 890.00</u>
10- EQUITY TO BE SHARED	17 087.90	19 808.36	22 964.66	26 621.91	30 862.04

APPENDIX 4

TABLE 6

NEW MORTGAGE EVERY FIVE YEARS

VALUE OF THE UNIT: \$90 000
MORTGAGE RATE : 16%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

<u>TIME FRAME</u>	5	10	15	20	25
1- VALUE OF THE UNIT	90 000	104 335	120 952	140 217	162 550
2- DOWNPAYMENT	9 000	10 434	12 095	14 022	16 255
3- MORTGAGE	81 000	93 901	108 857	126 195	146 295
					169 596
4- MONTHLY MORTGAGE PAYMENTS	1 068.45	1 238.62	1 435.90	1 664.60	1 929.73
5- MONTHLY OPERATING EXPENSES	<u>250.00</u>	<u>319.07</u>	<u>407.22</u>	<u>519.73</u>	<u>663.32</u>
					846.58
6- TOTAL MONTHLY COST	1 318.45	1 557.69	1 843.12	2 184.33	2 593.05
					3 083.67
7- MORTGAGE BALANCE	78 954.91	91 530.19	106 108.58	123 008.83	142 601.34
8- SHARE OF REIMBURSED MORTGAGE	2 045.09	2 370.81	2 748.42	3 186.17	3 693.66
9- APPRECIATION	<u>14 335.00</u>	<u>16 617.00</u>	<u>19 265.00</u>	<u>22 333.00</u>	<u>25 890.00</u>
10- EQUITY TO BE SHARED	16 380.09	18 987.81	22 013.42	25 519.17	29 583.66

APPENDIX 4

TABLE 7

SAME MORTGAGE FOR 25 YEARS

VALUE OF THE UNIT: \$70 000
MORTGAGE RATE : 12%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

	TIMEFRAME				
	5	10	15	20	25
1- VALUE OF THE UNIT	70 000	81 149	94 074	109 058	126 428
2- DOWNPAYMENT	7 000				146 564
3- MORTGAGE	63 000				
4- MONTHLY MORTGAGE PAYMENTS	650.10	650.10	650.10	650.10	000
5- MONTHLY OPERATING EXPENSES	225.00	287.16	366.50	467.76	596.99
					761.93
6- TOTAL MONTHLY COST	875.10	937.26	1 016.60	1 117.86	1 247.09
					761.93
7- MORTGAGE BALANCE	60 139.90	55 017.90	45 845.10	29 421.00	000
8- SHARE OR REIMBURSED MORTGAGE (cumulative)	2 860.10	7 982.10	17 154.90	33 579.00	63 000.00
9- APPRECIATION (cumulative)	11 149.00	24 074.00	39 058.00	56 428.00	76 564.00
10- EQUITY TO BE SHARED	14 009.10	32 056.10	56 212.90	90 007.00	139 564.00

APPENDIX 4TABLE 8SAME MORTGAGE FOR 25 YEARS

VALUE OF THE UNIT: \$70 000
MORTGAGE RATE : 14%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

TIMEFRAME

	5	10	15	20	25
1- VALUE OF THE UNIT					
2- DOWNPAYMENT	70 000	81 149	94 074	109 058	126 428
3- MORTGAGE	7 000				146 564
	63 000				
4- MONTHLY MORTGAGE PAYMENTS	739.54	739.54	739.54	739.54	000
5- MONTHLY OPERATING EXPENSES	225.00	287.16	366.50	467.76	596.99
					761.93
6- TOTAL MONTHLY COST	964.54	1 026.70	1 106.04	1 207.30	1 336.53
					761.93
7- MORTGAGE BALANCE	60 858.86	56 646.91	48 361.36	32 062.44	000
8- SHARE OF REIMBURSED MORTGAGE (cumulative)	2 141.14	6 353.09	14 638.64	30 937.56	63 000.00
9- APPRECIATION (cumulative)	11 149.00	24 074.00	39 058.00	56 428.00	76 564.00
10- EQUITY TO BE SHARED	13 290.14	30 427.09	53 696.64	87 365.56	139 564.00

APPENDIX 4

TABLE 9

SAME MORTGAGE FOR 25 YEARS

VALUE OF THE UNIT: \$70 000
MORTGAGE RATE : 16%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

TIMEFRAME

	5	10	15	20	25
1- VALUE OF THE UNIT	70 000	81 149	94 074	109 058	126 428
2- DOWNPAYMENT	7 000				146 564
3- MORTGAGE	63 000				
4- MONTHLY MORTGAGE PAYMENTS	831.01	831.01	831.01	831.01	000
5- MONTHLY OPERATING EXPENSES	<u>225.00</u>	<u>287.16</u>	<u>366.50</u>	<u>467.76</u>	<u>596.99</u>
6- TOTAL MONTHLY COST	1 056.01	1 118.17	1 197.51	1 298.77	1 428.00
7- MORTGAGE BALANCE	61 409.37	57 972.60	50 557.50	34 555.50	000
8- SHARE OF REIMBURSED MORTGAGE (cumulative)	1 590.63	5 027.40	12 442.50	28 444.50	63 000.00
9- APPRECIATION (cumulative)	<u>11 149.00</u>	<u>24 074.00</u>	<u>39 058.00</u>	<u>56 428.00</u>	<u>76 564.00</u>
10- EQUITY TO BE SHARED	12 739.63	29 101.40	51 500.50	84 872.50	139 564.00

APPENDIX 4

TABLE 10

SAME MORTGAGE FOR 25 YEARS

VALUE OF THE UNIT: \$90 000
MORTGAGE RATE : 12%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

TIMEFRAME

	5	10	15	20	25
1- VALUE OF THE UNIT	90 000	104 335	120 952	140 217	162 550
2- DOWNPAYMENT	9 000				188 440
3- MORTGAGE	81 000				
4- MONTHLY MORTGAGE PAYMENTS	835.84	835.84	835.84	835.84	000
5- MONTHLY OPERATING EXPENSES	<u>250.00</u>	<u>319.07</u>	<u>407.22</u>	<u>519.73</u>	<u>663.32</u>
6- TOTAL MONTHLY COST	1 085.84	1 154.91	1 243.06	1 355.57	1 499.16
7- MORTGAGE BALANCE		77 322.73	70 737.30	58 943.70	37 827.00
8- SHARE OF REIMBURSED MORTGAGE (cumulative)		3 677.27	10 262.70	22 056.30	43 173.00
9- APPRECIATION (cumulative)		<u>14 335.00</u>	<u>30 952.00</u>	<u>50 217.00</u>	<u>72 550.00</u>
10- EQUITY TO BE SHARED		18 012.27	41 214.70	72 273.30	115 723.00

179 440.00

APPENDIX 4

TABLE 11

SAME MORTGAGE FOR 25 YEARS

VALUE OF THE UNIT: \$90 000
MORTGAGE RATE : 14%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

<u>TIMEFRAME</u>	5	10	15	20	25
1- VALUE OF THE UNIT	90 000	104 335	120 952	140 217	162 550
2- DOWNPAYMENT	9 000				188 440
3- MORTGAGE	81 000				
4- MONTHLY MORTGAGE PAYMENTS	950.84	950.84	950.84	950.84	000
5- MONTHLY OPERATING EXPENSES	<u>250.00</u>	<u>319.07</u>	<u>407.22</u>	<u>519.73</u>	<u>663.32</u>
6- TOTAL MONTHLY COST	1 200.84	1 269.91	1 358.06	1 470.57	1 614.16
7- MORTGAGE BALANCE		78 247.10	72 831.74	62 178.89	41 223.14
8- SHARE OF REIMBURSED MORTGAGE (cumulative)		2 752.90	8 168.26	18 821.11	39 776.86
9- APPRECIATION (cumulative)		<u>14 335.00</u>	<u>30 952.00</u>	<u>50 217.00</u>	<u>72 550.00</u>
10- EQUITY TO BE SHARED		17 087.90	39 120.26	69 038.11	112 326.86

179 440.00

APPENDIX 4

TABLE 12

SAME MORTGAGE FOR 25 YEARS

VALUE OF THE UNIT: \$90 000
MORTGAGE RATE : 16%
DOWNPAYMENT : 10%
AMORTIZATION : 25 years

OPERATING COST: 5% INCREASE PER YEAR, CUMULATIVE
APPRECIATION: VALUE OF UNIT INCREASES 3% PER YEAR, CUMULATIVE

<u>TIMEFRAME</u>	5	10	15	20	25
1- VALUE OF THE UNIT	90 000	104 335	120 952	140 217	162 550
2- DOWNPAYMENT	9 000				188 440
3- MORTGAGE	81 000				
4- MONTHLY MORTGAGE PAYMENTS	1 068.45	1 068.45	1 068.45	1 068.45	000
5- MONTHLY OPERATING EXPENSES	<u>250.00</u>	<u>319.07</u>	<u>407.22</u>	<u>519.73</u>	<u>663.32</u>
6- TOTAL MONTHLY COST	1 318.45	1 387.52	1 475.67	1 588.18	1 731.77
7- MORTGAGE BALANCE		78 954.91	74 536.20	65 002.50	44 428.50
8- SHARE OF REIMBURSED MORTGAGE (cumulative)		2 045.09	6 463.80	15 997.50	36 571.50
9- APPRECIATION (cumulative)	<u>14 335.00</u>	<u>30 952.00</u>	<u>50 217.00</u>	<u>72 550.00</u>	<u>98 440.00</u>
10- EQUITY TO BE SHARED	16 380.09	37 415.80	66 214.80	109 121.50	179 440.00

APPENDIX 5**TABLE 1****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**NEW MORTGAGE EVERY 5 YEARS**VALUE OF THE UNIT: \$70 000 MORTGAGE RATE: 12%

TIMEFRAME	<u>MODEL I</u>		<u>MODEL II</u>		<u>MODEL III</u>	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	2 860	0	2 145	715	2 860	0
APPRECIATION	<u>0</u>	<u>11 149</u>	<u>8 362</u>	<u>2 787</u>	<u>11 149</u>	<u>0</u>
TOTAL	2 860	11 149	10 507	3 502	14 009	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	3 316	0	2 487	829	3 316	0
APPRECIATION	<u>0</u>	<u>12 925</u>	<u>9 694</u>	<u>3 231</u>	<u>12 925</u>	<u>0</u>
TOTAL	3 316	12 925	12 181	4 060	16 241	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	3 844	0	2 883	961	3 844	0
APPRECIATION	<u>0</u>	<u>14 984</u>	<u>11 238</u>	<u>3 746</u>	<u>14 984</u>	<u>0</u>
TOTAL	3 844	14 984	14 121	4 707	18 828	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	4 456	0	3 342	1 114	4 456	0
APPRECIATION	<u>0</u>	<u>17 370</u>	<u>13 027</u>	<u>4 343</u>	<u>17 370</u>	<u>0</u>
TOTAL	4 456	17 370	16 369	5 457	21 826	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	5 166	0	3 874	1 292	5 166	0
APPRECIATION	<u>0</u>	<u>20 136</u>	<u>15 102</u>	<u>5 034</u>	<u>20 136</u>	<u>0</u>
TOTAL	5 166	20 136	18 976	6 326	25 302	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 2****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE¹****NEW MORTGAGE EVERY 5 YEARS**VALUE OF THE UNIT: \$70 000 MORTGAGE RATE: 14%

TIMEFRAME	MODEL I		MODEL II		MODEL III	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	2 141	0	1 606	535	2 141	0
APPRECIATION	<u>0</u>	<u>11 149</u>	<u>8 362</u>	<u>2 787</u>	<u>11 149</u>	<u>0</u>
TOTAL	2 141	11 149	9 968	3 322	13 290	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	2 482	0	1 862	621	2 482	0
APPRECIATION	<u>0</u>	<u>12 925</u>	<u>9 694</u>	<u>3 231</u>	<u>12 925</u>	<u>0</u>
TOTAL	2 482	12 925	11 556	3 852	15 407	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	2 878	0	2 158	719	2 878	0
APPRECIATION	<u>0</u>	<u>14 984</u>	<u>11 238</u>	<u>3 746</u>	<u>14 984</u>	<u>0</u>
TOTAL	2 878	14 984	13 396	4 465	17 862	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	3 336	0	2 502	834	3 336	0
APPRECIATION	<u>0</u>	<u>17 370</u>	<u>13 027</u>	<u>4 343</u>	<u>17 370</u>	<u>0</u>
TOTAL	3 336	17 370	15 529	5 177	20 706	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	3 867	0	2 900	967	3 867	0
APPRECIATION	<u>0</u>	<u>20 136</u>	<u>15 102</u>	<u>5 034</u>	<u>20 136</u>	<u>0</u>
TOTAL	3 867	20 136	18 002	6 001	24 003	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 3****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**NEW MORTGAGE EVERY 5 YEARS**VALUE OF THE UNIT: \$70 000 MORTGAGE RATE: 16%

TIMEFRAME	MODEL I		MODEL II		MODEL III	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	1 591	0	1 193	398	1 591	0
APPRECIATION	<u>0</u>	<u>11 149</u>	<u>8 362</u>	<u>2 787</u>	<u>11 149</u>	<u>0</u>
TOTAL	1 591	11 149	9 555	3 185	12 740	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	1 844	0	1 383	461	1 844	0
APPRECIATION	<u>0</u>	<u>12 925</u>	<u>9 694</u>	<u>3 231</u>	<u>12 925</u>	<u>0</u>
TOTAL	1 844	12 925	11 077	3 692	14 769	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	2 138	0	1 603	535	2 138	0
APPRECIATION	<u>0</u>	<u>14 984</u>	<u>11 238</u>	<u>3 746</u>	<u>14 984</u>	<u>0</u>
TOTAL	2 138	14 984	12 841	4 281	17 122	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	2 478	0	1 858	620	2 478	0
APPRECIATION	<u>0</u>	<u>17 370</u>	<u>13 027</u>	<u>4 343</u>	<u>17 370</u>	<u>0</u>
TOTAL	2 478	17 370	14 885	4 963	19 848	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	2 873	0	2 155	718	2 873	0
APPRECIATION	<u>0</u>	<u>20 136</u>	<u>15 102</u>	<u>5 034</u>	<u>20 136</u>	<u>0</u>
TOTAL	2 873	20 136	17 257	5 752	23 009	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 4****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**NEW MORTGAGE EVERY 5 YEARS**VALUE OF THE UNIT: \$90 000 MORTGAGE RATE: 12%

TIMEFRAME	MODEL I		MODEL II		MODEL III	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	3 677	0	2 758	919	3 677	0
APPRECIATION	<u>0</u>	<u>14 335</u>	<u>10 751</u>	<u>3 584</u>	<u>14 335</u>	<u>0</u>
TOTAL	3 677	14 335	13 509	4 503	18 012	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	4 263	0	3 197	1 066	4 263	0
APPRECIATION	<u>0</u>	<u>16 617</u>	<u>12 463</u>	<u>4 154</u>	<u>16 617</u>	<u>0</u>
TOTAL	4 263	16 617	15 660	5 220	20 880	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	4 942	0	3 706	1 236	4 942	0
APPRECIATION	<u>0</u>	<u>19 265</u>	<u>14 449</u>	<u>4 816</u>	<u>19 265</u>	<u>0</u>
TOTAL	4 942	19 265	18 155	6 052	24 207	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	5 729	0	4 297	1 432	5 729	0
APPRECIATION	<u>0</u>	<u>22 333</u>	<u>16 750</u>	<u>5 583</u>	<u>22 333</u>	<u>0</u>
TOTAL	5 729	22 333	21 047	7 015	28 062	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	6 642	0	4 981	1 661	6 642	0
APPRECIATION	<u>0</u>	<u>25 890</u>	<u>19 417</u>	<u>6 473</u>	<u>25 890</u>	<u>0</u>
TOTAL	6 642	25 890	24 398	8 134	32 532	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 5****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**NEW MORTGAGE EVERY 5 YEARS**VALUE OF THE UNIT: \$90 000 MORTGAGE RATE: 14%

TIMEFRAME	<u>MODEL I</u>		<u>MODEL II</u>		<u>MODEL III</u>	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	2 753	0	2 065	688	2 753	0
APPRECIATION	<u>0</u>	<u>14 335</u>	<u>10 751</u>	<u>3 584</u>	<u>14 335</u>	<u>0</u>
TOTAL	2 753	14 335	12 816	4 272	17 088	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	3 191	0	2 393	798	3 191	0
APPRECIATION	<u>0</u>	<u>16 617</u>	<u>12 463</u>	<u>4 154</u>	<u>16 617</u>	<u>0</u>
TOTAL	3 191	16 617	14 856	4 952	19 808	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	3 700	0	2 775	925	3 700	0
APPRECIATION	<u>0</u>	<u>19 265</u>	<u>14 449</u>	<u>4 816</u>	<u>19 265</u>	<u>0</u>
TOTAL	3 700	19 265	17 224	5 741	22 965	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	4 289	0	3 217	1 072	4 289	0
APPRECIATION	<u>0</u>	<u>22 333</u>	<u>16 750</u>	<u>5 583</u>	<u>22 333</u>	<u>0</u>
TOTAL	4 289	22 333	19 967	6 655	26 622	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	4 972	0	3 729	1 243	4 972	0
APPRECIATION	<u>0</u>	<u>25 890</u>	<u>19 417</u>	<u>6 473</u>	<u>25 890</u>	<u>0</u>
TOTAL	4 972	25 890	23 146	7 716	30 862	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 6****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**NEW MORTGAGE EVERY 5 YEARS**VALUE OF THE UNIT: \$90 000 MORTGAGE RATE: 16%

TIMEFRAME	MODEL I		MODEL II		MODEL III	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	2 045	0	1 534	511	2 045	0
APPRECIATION	<u>0</u>	<u>14 335</u>	<u>10 751</u>	<u>3 584</u>	<u>14 335</u>	<u>0</u>
TOTAL	2 045	14 335	12 285	4 095	16 380	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	2 371	0	1 778	593	2 371	0
APPRECIATION	<u>0</u>	<u>16 617</u>	<u>12 463</u>	<u>4 154</u>	<u>16 617</u>	<u>0</u>
TOTAL	2 371	16 617	14 241	4 747	18 988	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	2 748	0	2 061	687	2 748	0
APPRECIATION	<u>0</u>	<u>19 265</u>	<u>14 449</u>	<u>4 816</u>	<u>19 265</u>	<u>0</u>
TOTAL	2 748	19 265	16 510	5 503	22 013	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	3 186	0	2 389	797	3 186	0
APPRECIATION	<u>0</u>	<u>22 333</u>	<u>16 750</u>	<u>5 583</u>	<u>22 333</u>	<u>0</u>
TOTAL	3 186	22 333	19 139	6 380	25 519	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	3 694	0	2 770	924	3 694	0
APPRECIATION	<u>0</u>	<u>25 890</u>	<u>19 417</u>	<u>6 473</u>	<u>25 890</u>	<u>0</u>
TOTAL	3 694	25 890	22 187	7 397	29 584	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 7****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**SAME MORTGAGE FOR 25 YEARS**VALUE OF THE UNIT: \$70 000 MORTGAGE RATE: 12%

TIMEFRAME	MODEL I		MODEL II		MODEL III	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	2 860	0	2 145	715	2 860	0
APPRECIATION	<u>0</u>	<u>11 149</u>	<u>8 362</u>	<u>2 787</u>	<u>11 149</u>	<u>0</u>
TOTAL	2 860	11 149	10 507	3 502	14 009	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	7 982	0	5 986	1 996	7 982	0
APPRECIATION	<u>0</u>	<u>24 074</u>	<u>18 055</u>	<u>6 019</u>	<u>24 074</u>	<u>0</u>
TOTAL	7 982	24 074	24 041	8 015	32 056	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	17 155	0	12 866	4 289	17 155	0
APPRECIATION	<u>0</u>	<u>39 058</u>	<u>29 293</u>	<u>9 765</u>	<u>39 058</u>	<u>0</u>
TOTAL	17 155	39 058	42 159	14 054	56 213	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	33 579	0	25 184	8 395	33 579	0
APPRECIATION	<u>0</u>	<u>56 428</u>	<u>42 321</u>	<u>14 107</u>	<u>56 428</u>	<u>0</u>
TOTAL	33 579	56 428	67 505	22 502	90 007	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	63 000	0	47 250	15 750	63 000	0
APPRECIATION	<u>0</u>	<u>76 564</u>	<u>57 423</u>	<u>19 141</u>	<u>76 564</u>	<u>0</u>
TOTAL	63 000	76 564	104 673	34 891	139 564	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 8****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**SAME MORTGAGE FOR 25 YEARS**VALUE OF THE UNIT: \$70 000 MORTGAGE RATE: 14%

TIMEFRAME	MODEL I		MODEL II		MODEL III	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	2 141	0	1 606	535	2 141	0
APPRECIATION	0	11 149	8 362	2 787	11 149	0
TOTAL	2 141	11 149	9 968	3 322	13 290	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	6 353	0	4 765	1 588	6 353	0
APPRECIATION	0	24 074	18 055	6 019	24 074	0
TOTAL	6 353	24 074	22 820	7 607	30 427	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	14 639	0	10 979	3 660	14 639	0
APPRECIATION	0	39 058	29 293	9 765	39 058	0
TOTAL	14 639	39 058	40 272	13 425	53 697	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	30 938	0	23 203	7 735	30 938	0
APPRECIATION	0	56 428	42 321	14 107	56 428	0
TOTAL	30 938	56 428	65 524	21 842	87 366	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	63 000	0	47 250	15 750	63 000	0
APPRECIATION	0	76 564	57 423	19 141	76 564	0
TOTAL	63 000	76 564	104 673	34 891	139 564	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5TABLE 9EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE¹SAME MORTGAGE FOR 25 YEARSVALUE OF THE UNIT: \$70 000 MORTGAGE RATE: 16%

TIMEFRAME	<u>MODEL I</u>		<u>MODEL II</u>		<u>MODEL III</u>	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	1 591	0	1 193	398	1 591	0
APPRECIATION	<u>0</u>	<u>11 149</u>	<u>8 362</u>	<u>2 787</u>	<u>11 149</u>	<u>0</u>
TOTAL	1 591	11 149	9 555	3 185	12 740	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	5 027	0	3 770	1 257	5 027	0
APPRECIATION	<u>0</u>	<u>24 074</u>	<u>18 055</u>	<u>6 019</u>	<u>24 074</u>	<u>0</u>
TOTAL	5 027	24 074	21 825	7 276	29 101	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	12 442	0	9 331	3 111	12 442	0
APPRECIATION	<u>0</u>	<u>39 058</u>	<u>29 293</u>	<u>9 765</u>	<u>39 058</u>	<u>0</u>
TOTAL	12 442	39 058	38 624	12 876	51 500	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	28 444	0	21 333	7 111	28 444	0
APPRECIATION	<u>0</u>	<u>56 428</u>	<u>42 321</u>	<u>14 107</u>	<u>56 428</u>	<u>0</u>
TOTAL	28 444	56 428	63 654	21 218	84 872	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	63 000	0	47 250	15 750	63 000	0
APPRECIATION	<u>0</u>	<u>76 564</u>	<u>57 423</u>	<u>19 141</u>	<u>76 564</u>	<u>0</u>
TOTAL	63 000	76 564	104 673	34 891	139 564	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5TABLE 10EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE¹SAME MORTGAGE FOR 25 YEARSVALUE OF THE UNIT: \$90 000 MORTGAGE RATE: 12%

TIMEFRAME	<u>MODEL I</u>		<u>MODEL II</u>		<u>MODEL III</u>	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	3 677	0	2 758	919	3 677	0
APPRECIATION	<u>0</u>	<u>14 335</u>	<u>10 751</u>	<u>3 584</u>	<u>14 335</u>	<u>0</u>
TOTAL	3 677	14 335	13 509	4 503	18 012	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	10 263	0	7 697	2 566	10 263	0
APPRECIATION	<u>0</u>	<u>30 952</u>	<u>23 214</u>	<u>7 738</u>	<u>30 952</u>	<u>0</u>
TOTAL	10 263	30 952	30 911	10 304	41 215	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	22 056	0	16 542	5 514	22 056	0
APPRECIATION	<u>0</u>	<u>50 217</u>	<u>37 663</u>	<u>12 554</u>	<u>50 217</u>	<u>0</u>
TOTAL	22 056	50 217	54 205	18 068	72 273	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	43 173	0	32 380	10 793	43 173	0
APPRECIATION	<u>0</u>	<u>72 550</u>	<u>54 412</u>	<u>18 138</u>	<u>72 550</u>	<u>0</u>
TOTAL	43 173	72 550	86 792	28 931	115 723	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	81 000	0	60 750	20 250	81 000	0
APPRECIATION	<u>0</u>	<u>98 440</u>	<u>73 830</u>	<u>24 610</u>	<u>98 440</u>	<u>0</u>
TOTAL	81 000	98 440	134 580	44 860	179 440	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 11****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**SAME MORTGAGE FOR 25 YEARS**VALUE OF THE UNIT: \$90 000 MORTGAGE RATE: 14%

TIMEFRAME	<u>MODEL I</u>		<u>MODEL II</u>		<u>MODEL III</u>	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	2 753	0	2 065	688	2 753	0
APPRECIATION	<u>0</u>	<u>14 335</u>	<u>10 751</u>	<u>3 584</u>	<u>14 335</u>	<u>0</u>
TOTAL	2 753	14 335	12 816	4 272	17 088	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	8 168	0	6 126	2 042	8 168	0
APPRECIATION	<u>0</u>	<u>30 952</u>	<u>23 214</u>	<u>7 738</u>	<u>30 952</u>	<u>0</u>
TOTAL	8 168	30 952	29 340	9 780	39 120	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	18 821	0	14 116	4 705	18 821	0
APPRECIATION	<u>0</u>	<u>50 217</u>	<u>37 663</u>	<u>12 554</u>	<u>50 217</u>	<u>0</u>
TOTAL	18 821	50 217	51 779	17 259	69 038	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	39 777	0	29 833	9 944	39 777	0
APPRECIATION	<u>0</u>	<u>72 550</u>	<u>54 412</u>	<u>18 138</u>	<u>72 550</u>	<u>0</u>
TOTAL	39 777	72 550	84 245	28 082	112 327	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	81 000	0	60 750	20 250	81 000	0
APPRECIATION	<u>0</u>	<u>98 440</u>	<u>73 830</u>	<u>24 610</u>	<u>98 440</u>	<u>0</u>
TOTAL	81 000	98 440	134 580	44 860	179 440	0

¹ Amounts rounded off to the nearest dollar.

APPENDIX 5**TABLE 12****EQUITY SHARING BETWEEN THE MEMBERS AND THE COOPERATIVE**¹**SAME MORTGAGE FOR 25 YEARS**VALUE OF THE UNIT: \$90 000 MORTGAGE RATE: 16%

TIMEFRAME	<u>MODEL I</u>		<u>MODEL II</u>		<u>MODEL III</u>	
	MEMBER	COOP	MEMBER	COOP	MEMBER	COOP
<u>5 YEARS</u>						
PRINCIPAL REIMBURSED	2 045	0	1 534	511	2 045	0
APPRECIATION	0	14 335	10 751	3 584	14 335	0
TOTAL	2 045	14 335	12 285	4 095	16 380	0
<u>10 YEARS</u>						
PRINCIPAL REIMBURSED	6 464	0	4 848	1 616	6 464	0
APPRECIATION	0	30 952	23 214	7 738	30 952	0
TOTAL	6 464	30 952	28 062	9 354	37 416	0
<u>15 YEARS</u>						
PRINCIPAL REIMBURSED	15 997	0	11 998	3 999	15 997	0
APPRECIATION	0	50 217	37 663	12 554	50 217	0
TOTAL	15 997	50 217	49 661	16 553	66 214	0
<u>20 YEARS</u>						
PRINCIPAL REIMBURSED	36 571	0	27 428	9 143	36 571	0
APPRECIATION	0	72 550	54 412	18 138	72 550	0
TOTAL	36 571	72 550	81 840	27 281	109 121	0
<u>25 YEARS</u>						
PRINCIPAL REIMBURSED	81 000	0	60 750	20 250	81 000	0
APPRECIATION	0	98 440	73 830	24 610	98 440	0
TOTAL	81 000	98 440	134 580	44 860	179 440	0

¹ Amounts rounded off to the nearest dollar.