

**A Car-Sharing Co-operative
in Winnipeg**

A Car-Sharing Co-operative in Winnipeg

Alternatives and Recommendations

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**Centre for the Study of Co-operatives
University of Saskatchewan**



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Introduction

Car-sharing co-operatives exist in more than one hundred cities in Europe. Similar organizations are in the early stage of development in Vancouver, Victoria, Québec City, Montréal, and Portland, Oregon. This booklet describes the alternatives, and suggests recommendations, in establishing a proposed co-operative for the purpose of bringing the benefits of car-sharing to Winnipeg, Manitoba.

Part I: The Organizational Plan

Description of Business

A car-sharing co-operative (CSC) owns a fleet of vehicles to which it provides convenient access for its members. Membership is limited to experienced drivers with safe driving histories. Members pay for the amount of time, and distance, a CSC vehicle is used. A feasibility study in Portland, Oregon, concluded that for members who typically drive less than ten thousand miles (16,130 km) per year, there are significant cost savings in using CSC vehicles versus a privately owned vehicle. In addition to cost savings, members benefit from being relieved of the responsibility for buying, financing, maintaining, insuring, and disposing of a personal vehicle, all of which are duties assumed by the CSC.

Experience in Europe indicates that the community benefits from a CSC because vehicles are used more intensively, resulting in less traffic congestion and reduced vehicle emissions. For city residents, public transit becomes a more practical means of primary transportation when a CSC vehicle is available as an alternative for occasions when public transit may not be feasible, such as a trip to a garden-supply or building-supply retailer.

Legal Structure

It is proposed that the CSC in Winnipeg shall be a co-operative incorporated in the Province of Manitoba with share capital. The *Co-operatives Act* provides that:

- At least three directors are elected from among the members on the basis of one-member, one-vote.
- An annual general meeting is held, with reports to the membership including an audited financial statement for the previous year, and elections for one-third of the directors whose terms are expiring, as well as any additional vacancies.
- The surplus (of revenues over expenses, determined in accordance with generally accepted accounting principles) belongs to the members. The board may direct that the co-operative retain a portion of the surplus as a general reserve, and allocate the remainder to the members as a dividend based on patronage.
- No employee can be a director. The board of directors appoints the general manager, and meets as often as necessary to make policy and conduct the business and affairs of the co-operative.

The co-operative form of organization is suggested because it can provide car-sharing services to members at cost, by charging market prices and paying patronage dividends, while member liability is limited to their share purchase. The business of car-sharing is inherently local, and the co-operative legal structure involves by-laws that will assure continuing local democratic control and ownership. As a co-operative, the CSC in Winnipeg can also interact harmoniously with CSCs in other cities.

An alternative to the co-operative form of organization is for an entrepreneur to incorporate a car-share service on a for-profit basis. Car-Share Portland is an example of this model; all strategic planning and management originate with the founder and sole investor, Dave Brook. A for-profit corporation is able to attract venture capital in ways not open to a co-operative. However, the possibility of obtaining financial support from government or foundations is reduced. Co-operative car-sharing organiza-

tions in Canada have relied on grants to achieve viability. In the long run, assuming profitability, the ownership of the standard for-profit corporation will change hands. In a variety of industries, such as newspaper publishing or funeral homes, there is a tendency for consolidation to occur, resulting in fewer owners of larger, geographically dispersed facilities. As a consequence, the local character of the organization may gradually be lost along with local ownership. Proponents of the corporate model may question the importance of local ownership and distinctiveness—does it, in fact, matter to a consumer whether they personally share in the ownership, as long as the cars are available when promised, and are economically priced?

This question may influence a different marketing approach for the co-operative versus the for-profit corporation. In the case of the Co-operative Auto Network (CAN) in Vancouver, there is no effort underway to increase the utilization of vehicles beyond a break-even level. CAN's executive director, Tracey Axelsson, sees the co-op as a response to the environmental damage caused by our automobile-oriented transportation system. She believes that to maximize profits, and thus reward private investors, the corporate type of organization will inevitably promote more driving, rather than driving as a last resort, compounding the harm done by automobiles.

Part II: Operational Considerations

Description of Services (pro forma)

Projecting the ultimate potential of a venture must be regarded as a totally speculative act. Based on data from the Portland study, the CSC in Winnipeg may grow to six hundred members, with a fleet of fifty-five vehicles, and a staff of three. At inception, the co-op may begin with sixteen members, two cars, and a staff of one, supported by a foundation grant.

Booking Initially, booking is done by the manager. When a member wants to use a CSC vehicle, he or she books in advance, by telephone, to confirm either that a vehicle is currently available, or that one can be

scheduled for future use. If a vehicle is not available at a certain time or place, alternatives may be offered. If scheduling becomes onerous, or when growth surpasses forty-five cars/five hundred members, the booking function may be handed off to a third party call-centre with custom software.

Parking Generally, the vehicles, identifiable by decals on the driver's-side door and rear, are parked overnight on a reserved, electrified (for winter block heater) parking space located within walking distance for several members. Other parking spaces are located near places of employment to enable "intra-day" use of the vehicle. Wherever feasible, secure bicycle parking is available at the assigned CSC parking spaces.

Access, Member Responsibility, and Charges Each CSC vehicle is equipped with antitheft devices. To enable all members to gain entry, the CSC standardizes a make of vehicle with an interchangeable driver's-side-door lock cylinder and key. When cars are purchased, the original cylinder is removed, to be stored and reinstalled when the car is sold. Members of the CSC have a key that can unlock any of the CSC fleet vehicles. Vehicle ignition keys are secured in lock-boxes inside the vehicle. A member is advised of the combination that opens the lock-box when the vehicle is booked. Before driving away, the member records the odometer reading, time of day, and their member number in the logbook. The member is responsible for returning the vehicle to the predetermined CSC parking space (overnight or intra-day) before the reserved time is over. Upon return, the member records the odometer reading and time in the logbook, puts the ignition key back inside the lock-box, locks the lock-box, and locks the vehicle. The member is charged for time (half-hour increments) and distance (tenth-of-kilometre increments). Unless other credit arrangements are made, members are charged bi-monthly (twenty-six times per year) by preauthorized debits to their credit union or bank accounts.

Fuel Members are responsible for refueling whenever the gasoline gauge is below one-eighth. A CSC fleet credit card is inside the lock-box to refuel on the co-op's account at the preferred provider of fuel. The fleet card carries restrictions: it can only be used for fuel, and the odometer and vehicle number are recorded at the time fuel is purchased. The recommended provider is Red River Co-op, with nine gas bars throughout Winnipeg. Patronage dividends from the co-op are expected to generate savings of five

to seven cents per litre of fuel. In the event that refueling must occur with another provider of fuel, the member pays for gasoline using their own resources, and sends a receipt to CSC to be credited. However payment is made, the member who refuels a vehicle is given one hour use of the vehicle at no charge on the occasion of the refueling, with distance charges still being in effect.

Restrictions Vehicles purchased by the CSC are selected to minimize the total costs per kilometre driven. CSC cars are generally four-door compact sedans or hatchbacks equipped with automatic transmission, power steering, air conditioning, and am/fm radio. CSC vehicles have no ashtrays and smoking in the vehicles is prohibited. Pets can only be carried in staff-approved containers. Member-owned ski, bicycle, or other racks, and infant car seats can be used, subject to staff approval. Bumper stickers or window decals can be affixed, also subject to approval.

Staff Responsibility The CSC staff attends to acquisition, financing and disposal of vehicles, scheduling, accounting, web page administration, newsletter distribution, car washing, minor maintenance, preventative maintenance in partnership with a dealer's service department, collision repair, insurance, marketing, processing membership applications and withdrawals, and communications.

Communications The preferred method for member communications is via e-mail. For members not online, a monthly member newsletter can be distributed. Member communications include information about the economic and environmental benefits realized by the CSC, advocacy of public transit, reminders about various responsibilities of membership, driving safety tips, and seasonal driving information. In addition, the newsletter may promote links between members who may have a common interest, such as car-pooling, cross-border shopping, day-trips, etc.

Extended Use For a member driving a vehicle to a destination and staying more than two days, the half-hourly charges accumulated with the CSC would likely cost more than the alternative of renting from a private car-rental firm. In this event, the CSC can establish a relationship with a preferred provider of extended car rentals, negotiating a low-rate package with pick-up and drop-off services for CSC members.

Location

Overnight parking spaces for CSC vehicles should be located throughout Winnipeg, wherever a concentration of at least ten members live within a ten-minute outdoor walk. A limited number of intra-day parking spaces are located in parking lots owned by various institutions, in locations where at least ten members have an intra-day need of a vehicle, such as pick-ups and deliveries for a home-based business. Landlords of these parking locations are compensated at market rates. Some overnight parking spaces are provided by members who belong to housing co-operatives and the co-op is compensated at market rates for the parking. Other overnight parking spaces are provided by home or condo owners. A parking agreement between CSC Winnipeg and the party providing each parking space is executed and the co-op pays rent for the spaces as necessary. However, if the space is provided by a CSC member, the member would not be compensated at market rates, but rather on a hydroelectric cost-recovery basis, on the premise that the member already benefits from having the CSC vehicle located conveniently on their own property.

During the start-up, the CSC's business office would be located in the manager's home. Once membership grows to a level where the manager requires a full-time assistant, the co-op would provide a centrally located general office in close proximity to the maintenance base. Maintenance of the fleet is provided under contract at a centrally located garage with employees authorized to make repairs under the manufacturer's warranty.

In considering various alternatives for the general office and maintenance sites, it was noted that in Winnipeg, auto dealerships that might serve as a maintenance base are generally located at major suburban freeway sites, such as Transcona, Fort Richmond, North Kildonan, and St. James. As such, they are less accessible by foot or bus for the target market and employees. The newer buildings in these locations, though with lower vacancy rates, also carry higher costs of occupancy.

Source of Vehicles

Passenger sedans or hatchbacks of the desired make may be obtained in four different ways:

- The CSC can buy vehicles still carrying a manufacturer's warranty from members as they join.
- The CSC can buy a fleet of new vehicles from a manufacturer and rely on the dealer's maintenance services under warranty.
- The CSC can buy vehicles being returned at the end of three-year leases, with warranty about to expire.
- The CSC can buy U-Drive vehicles being retired by a car-rental company, with six to eighteen thousand kilometres on the odometers.

Buying from Members Buying from members as they join would involve independent assessment of the vehicle's condition, and an objective reference for pricing, such as the wholesale "black book." Early depreciation charges will have already been absorbed by the previous owner. A low-risk approach for the CSC would be to credit the member with equity shares equal to the member's equity in the vehicle. For example, if a prospective member has a vehicle less than three years old, with a black-book value of \$14,000 (wholesale), and an unpaid loan balance on the vehicle of \$4,000, the CSC would pay out the \$4,000 loan and issue the member \$10,000 in shares, above the \$600 in initial membership shares already owned by the member. Subject to profitability, the CSC's board may decide to redeem a portion (5 percent) of the shares above a certain minimum (\$600). Then in year one, 5 percent of the member's surplus shares (\$500) would be redeemed for cash; in year two, \$475; in year three, \$451, etc. Likely, for as long as the member continues to belong, there would be an annual payment on the balance, even after the co-op disposes of the vehicle. Whenever the member withdraws from the CSC, all shares would be redeemed at par, provided that the co-operative has the member equity to do so. To prevent the risk of the CSC buying a "lemon" from a knowing or unknowing member, there could be a right established for the co-op to transfer ownership of the vehicle back to the previous owner at the current black-book wholesale value and to cancel a like amount of share equity in the member's account.

Buying a New Fleet Buying a new fleet would provide the highest consistent reliability and minimize repairs. Members of the CSC would

benefit from the use of a newer vehicle: no rust, quiet ride, mechanical reliability, cold-weather starts, and stylish appearance. However, this option would also produce the greatest depreciation and interest costs. The CSC would need to set aside reserves sufficient to replace the vehicles at the end of the warranty period, resulting in higher monthly charges than any other alternative.

Buying Lease-Return Vehicles Buying lease-return vehicles could allow the co-op to achieve limited consistency, for example, by buying only three-year-old products subject to a positive mechanical evaluation. With little or no mechanical warranty remaining, the co-operative would be assuming the risk of major repairs, and there would be no recourse if a vehicle proved to be a “lemon.” To transfer this risk, the CSC may purchase extended warranties underwritten by an organization such as GE Capital. An extended warranty would only be possible if the original manufacturer’s warranty is still valid when the CSC buys the car. Even in instances where the cars had just one previous owner who attended to all regular maintenance, there may be inherent drawbacks to a pre-owned vehicle; for example, the cars may have been driven by smokers.

Buying U-Drive Vehicles Buying a one-year-old, or newer, U-Drive vehicle would mean the first-year depreciation has been captured by the rental company and two years of manufacturer’s warranty remains. The CSC could achieve some consistency by concentrating on purchasing a limited range of makes and models. It could plan to dispose of these vehicles as the warranty on each one expires. The CSC will already be in negotiation with one or more rental companies about the weekend rate for members, so this could certainly extend and complicate the strategic alliance between the co-op and the preferred car-rental provider.

Trucks and Vans Pickup trucks or minivans may be added as member demand requires, with assigned parking along major bus routes in various areas of Winnipeg. To maintain the interchangeability of keys, these specialty vehicles should be the same make as the sedans. Initially, specialized vehicles could be rented by members from existing rental firms at a preferred “corporate” rate lower than that which the member could obtain individually. These firms pick up and deliver the CSC member, who is responsible for the rates, gas, and insurance according to the rental agree-

ment. The CSC would need a liaison with the corporate accounts manager of an existing car-rental firm. Once the co-op observes a sufficient usage of these types of vehicles by the members, it could begin to obtain specialized vehicles in the same manner as a passenger sedan or hatchback.

Using a Broker Unless all vehicles are supplied by members as they join, or the CSC buys all new cars, the co-op may wish to develop a relationship with an experienced automobile broker who could attend vehicle auctions to obtain lease-return or U-Drive vehicles for the CSC within pre-determined constraints as to warranty, make, odometer, and price.

Recommendations The objective in purchasing vehicles is to minimize the cost per member per kilometre driven, and to minimize the risk of unpredictable repairs. After consulting with several managers in the automotive leasing and maintenance business, my recommendations are:

- Unless the reliability of non-Japanese manufacturers surpasses the current leaders, the CSC should purchase Toyota, Honda (Acura), or Nissan makes.
- All vehicles should be purchased before the expiry of the manufacturer's warranty, and, shortly before that expiry, an extended warranty should be purchased.
- Sources of vehicles, in order of preference, are: members of the CSC, lease-returns, and lastly, U-Drives being sold. New vehicles are prohibitively expensive.

Maintenance

A newly acquired vehicle is likely to require a tune-up, a new set of tires, a new battery and seals, and new brakes/rotors, costing perhaps \$850 in total. Putting it into service as a CSC vehicle will involve installing a common cylinder in the driver's-side door, a lock-box, a steering wheel antitheft device, and decals, costing perhaps \$550 in total. About every sixty days, the cars should be taken to the maintenance base for lube, oil change, filters, and a safety inspection. Pothole driving may result in certain cars needing realignment. If vehicles parked at certain locations are driven more kilometres than others, management should rotate vehicles

to equalize distance driven per vehicle. Certain minor repairs can be done by the manager or staff, such as replacing lights, wiper blades, paint touch-ups, etc. The organizing group needs to shop wisely for their preferred provider of mechanical repairs.

Extended warranty coverage is recommended for the engine and power train. Cost estimates vary widely. Extended warranty protection can be negotiated from \$400 per year, and up, per vehicle. Work not covered by warranty adds another \$1,000 per year, per vehicle.

Disposal of Vehicles

When warranty coverage can no longer be maintained, the CSC can dispose of vehicles at auction. Having calculated depreciation at 2 percent per month on a declining balance, the CSC may receive auction proceeds resulting in either gains or losses on disposals.

General and Administrative Expenses

Personnel expenses will increase as the organization grows. The original manager, operating from home and looking after all the tasks alone, will necessarily be an exceptionally committed person. She or he might be retained on a salary of \$30,000 per annum, but as the CSC's ability to pay increases, this salary should increase by 5 percent annual increments over seven years to a job rate of \$42,213. Part-time, then ultimately, full-time assistance will also be required, starting at \$7/hour, subject also to 5 percent annual increments over seven years to a job rate of \$9.85/hour. Employee benefits will add 25 to 30 percent to the direct salary and wages costs. Actual labour-market experience may differ from these estimates.

Office equipment, beginning modestly with leased computer, printer, photocopier, accounting software, cellular phone, and supplies, initially may cost \$600/month and will also increase as the CSC grows. Moving into one thousand square feet, rented commercial office space, with off-street parking, could add at least \$900/month to overhead.

In addition to personnel and occupancy costs, there will be costs asso-

ciated with member communications, publicity, accounting and auditing fees, security, printing and postage, Internet service, insurance, etc.

Roadside Assistance

The CSC should be a member of CAA Manitoba, with an annual fee negotiated on the basis of the number of vehicles in the fleet. A CAA card should be placed, along with the membership number, in the glove box of each vehicle. Some of the vehicles may have roadside assistance available as part of the manufacturer's unexpired warranty, so CAA coverage would not be necessary. The glove boxes of these vehicles should contain the appropriate number to call.

Insurance

Once the CSC owns ten or more vehicles, insurance rates can be calculated on a fleet basis. Then, in years when the CSC has a lower frequency of claims than a normal owner of the same vehicles, there will be a cash rebate from Autopac. Conversely, there will be a surcharge if claims experience is unfavourable compared to norms. While the co-op owns less than ten vehicles, basic (all-purpose) Autopac coverage with \$500 deductible and \$2 million liability would be purchased for each vehicle. This coverage applies to the CSC, not the individual driver. The co-op has a lien on each member's shares, so that if the driver is found to be at-fault and the co-op pays the deductible, the member must either reimburse the co-op or be terminated, with the deductible being reimbursed through the lien.

Property insurance coverage is recommended for theft, fire, glass, and for the assets of the CSC along with director's and corporate liability.

Fulfilment of Bookings

If a member has booked a car and it is not in the designated parking spot within fifteen minutes of the beginning of the time period booked, the member may:

- A CAR-SHARING CO-OPERATIVE IN WINNIPEG

- Cancel the booking without charge;
- Change the reservation to another co-op vehicle in the vicinity;
or
- If no other co-op vehicle is in the vicinity, or the manager is unavailable to change the reservation, the member may take a taxi or rent a car from a local U-Drive agency, whichever costs less.

Upon presentation of receipts to the manager, the member is reimbursed for the expense, up to a maximum of \$50. When the problem arises due to the late return of a vehicle by another member, regardless of cause, the other member will be charged \$10 plus the costs to the disrupted member, up to the \$50 maximum.

Membership Criteria

The CSC has a financial incentive to limit membership to careful drivers. Likewise, the co-op's reputation in the community will be influenced by the safety and courtesy displayed by its members. Experience driving in Manitoba for a minimum of five uninterrupted years prior to membership is a requirement. Thus, the membership consists of people who have had cars, but no longer wish to own them individually, as well as people who own one car and prefer membership in the CSC to buying a second vehicle. Evidence of a safe driving history is also a requirement. In Manitoba, safe drivers can accumulate up to five merit points on their driver's licenses. At the time a person applies to join, they must produce a Manitoba driver's license with at least two merit points. The CSC membership database includes the date when each member's license is due for renewal. At each renewal date, staff contact the member and arrange to see the member's new license to ascertain that at least two merit points are in effect. Members who have less than two merit points are suspended from operating CSC vehicles, and are free to terminate their membership.

Certain members may lack the required five years driving experience in Manitoba with two merit points on their license, may have a suspended license, or may have health or mobility concerns such that they would pre-

fer to use a Designated Driver (DD). A member wishing to use a DD provides the CSC with a copy of the DD's Manitoba driver's license and pays a registration fee. DDs can only use CSC vehicles after being approved by an authorized representative of CSC Winnipeg. The member books the vehicle, and the DD can only use the CSC vehicle when the member is present. The member indemnifies CSC Winnipeg for any claims arising from the DD's use of a CSC vehicle.

Spouses, defined broadly as those sharing a household, could economize on the share equity purchase through one spouse declaring to be an associate member. Associate members have the same safety and experience criteria as members, but their initial share equity purchase requirement is half that of a member. An associate member who stops residing with the member, whose partner's membership is terminated, or whose driving rights are suspended for whatever reason, is prohibited from driving a CSC vehicle until making a share equity purchase and becoming a full member.

Pre-Incorporation Membership

Before incorporating the co-op, a small core group needs to study the feasibility of car-sharing, identify human and financial resources, and put together a business plan covering the first three years of operation. At this time, a foundation could be approached for a grant. Meanwhile, membership needs to be promoted. Borrowing a successful technique from the American New Generation Co-ops, it is recommended that a certain date be identified by the promoters as the launch. Prior to that date, potential members are asked to pay a \$20 nonrefundable contribution to the organizational effort and to pay into a lawyer's trust account the full amount of a share equity purchase requirement. These moneys are held in trust by the lawyer until the launch date. The core group is thus provided with reliable knowledge of who wants to car-share and where they live. The core group makes their business plan available to the paid-up potential members approximately two weeks in advance of the launch. On the launch date, all paid-up potential members are invited to a meeting, where the core group presents the plan and answers questions. There is a ballot, on the basis of

one member, one vote. If a majority of the paid-up potential members do not vote in favour of the plan, every share purchase in trust is returned and no CSC is created. But if 50 percent (plus one) vote to approve, then the core group incorporates a co-operative, and the lawyer transfers the share capital to the CSC. According to the CSC's by-laws, shares are issued to all members and associate members on the basis of their purchases of share equity.

Member Termination

By-laws will govern how memberships may be terminated by the board. Certain fundamental expectations about driving and prompt payment of charges should be backed up by termination of violators. These include: driving while intoxicated, dangerous operation of a motor vehicle, failure to provide a breath sample, driving when license suspended, leaving the scene of an accident, allowing a nonmember to use a CSC vehicle except in a grave emergency, at-fault collision, and failure to pay CSC charges. The member's shares as well as those of his or her associate member may be cancelled by the co-op to offset any liabilities or costs incurred by the co-op as a result of these behaviours. The car door key must be returned to the manager upon termination or suspension.

Rate Plans (Service Charges)

Based on the model of CAN in Vancouver, members can enrol in one of three plans, and may switch from one plan to another up to two times per year. The plans include insurance, fuel, maintenance, roadside assistance, PST, and GST.

The Regular Rate Plan

New members usually opt for the "Regular" rate plan:

- \$10/month + \$0.75/half-hour booked + \$0.25/km driven. The regular rate applies to the member who drives more than one thousand but less than three thousand kilometres per year.

The Car-Free Rate Plan

Members who are driving less than one thousand kilometres per year, (83.3 km/month) are encouraged to enrol in the “Car-Free” rate plan:

- \$4.17/month + \$0.75/half-hour booked + \$0.30/km driven.

The Weekender Rate Plan

Members who are driving more than three thousand kilometres per year (250 km/month) are encouraged to enrol in the “Weekender” rate plan:

- \$35/month + \$0.75/half-hour booked + \$0.15/km driven. The name was chosen because many drivers who fit this profile use the vehicles for weekend trips but, like other CSC members, they can book cars at any time during the week.

Surcharges

Occasionally there are incidents that result in extraordinary costs, which are charged back to the member responsible, such as:

Photo-radar traffic tickets	\$10 + cost
Unpaid parking tickets	\$10 + cost
Towing and impoundment	\$10 + cost
Lost key replacement	\$10 + cost
Car returned a mess	\$10 + cost
Late return of vehicle:	
if extension possible	no charge
extension not possible	\$10 + compensation to disrupted member
Cancellation, with:	
> 24 hours notice	no charge
12-24 hours notice	50% of the price of the time booked
< 12 hours notice	75% of the price of the time booked
No notice	100% of the price of the time booked
Car returned with < 1/8 tank of fuel	\$10 surcharge

Part III: Assessment of Feasibility in Winnipeg

Estimated Break-Even Membership

Vancouver's CAN launched with sixteen members and two vehicles. It was a recipient of financial support from foundations. The Portland, Oregon, feasibility study concluded that with financial support during the start-up phase, a car-share co-op would break even at forty-five vehicles and five hundred members, and cease to need grants at that scale of operation.

Since fixed costs in Winnipeg are assumed to be generally higher than in Portland, it is reasonable to assume that the break-even point in Winnipeg would be higher, perhaps fifty-five vehicles and six hundred members. Realistically, it could be several years before the CSC in Winnipeg grows to a self-sustaining level.

Share Equity Purchase and Refund

It is suggested that shares have a \$1 par value. CSC membership requires the purchase of six hundred shares. Associate membership involves the purchase of three hundred shares, and an attestation that the associate resides in a household with a member. In situations where a member/associate would encounter hardship to make the \$600/\$300 share equity purchase in a lump sum, a convenient payment plan can be arranged, with \$200/\$100 down, and \$100/\$50 monthly for four months.

The by-laws should state that shares can be sold back to the CSC at par when a member withdraws from the co-op, or a membership is terminated, provided that the co-op has sufficient equity. The by-laws should also state that the refund of shares by the CSC is delayed until a minimum of six months after the member joined the co-op.

Subject to profitability, the board of directors may authorize in any year a refund through the mechanism of a share purchase of a certain per-

centage (such as 5 percent, rounded to the nearest dollar) of all shareholdings over a certain level (such as \$600/\$300).

Conservative Debt Ratio

Total liabilities should not exceed 40 percent of total assets. Stated differently, 60 percent of total assets should be accounted for as member share equity and retained earnings.

This may be quite a contrast to the usual practice in Winnipeg when financing vehicles. Those who lease a vehicle (a growing market segment) have no equity in the vehicle. Financial institutions and vehicle dealers may encourage car buyers to borrow most of the purchase price, and take up to six years to repay. Such customers may find that when they trade in, or their vehicle is written off by Autopac, though they have made their monthly payments, they “don’t have much to show for it.”

A CSC should avoid relying too much on debt because interest on debt is a fixed cost that has to be paid, increasing the level of revenue required from members in order to break even, which means higher prices for the member. A high level of debt increases the risk of financial losses, and thus the ultimate risk that withdrawing members will not be able to redeem their shares. Reducing debt and building up retained earnings can give the co-operative reserves to withstand a short-term financial setback without impairing its ability to redeem member shares.

At times, particularly when adding to the fleet of vehicles, the co-operative’s management and board may need to use the lending facilities of a supportive credit union to the extent that there is more than 40 percent debt. If so, the equity-building surcharge should be put into effect until the debt is brought down to the 40 percent level.

Equity-Building Surcharges

Until the CSC achieves its conservative debt ratio, and at any time that the monthly balance sheet shows that the ratio of debt to total assets

has risen above the conservative debt ratio, the CSC should impose an equity-building surcharge of 5 percent on each billing, rounded to the nearest dollar since shares have a one-dollar value. These charges increase the share equity accounts in proportion to patronage.

Conclusion

A car-sharing co-operative has the potential to radically alter the economics of private vehicle transportation in Winnipeg for those who become members. At present, vehicle owners incur substantial costs. The fixed costs, consisting of depreciation, maintenance, parking, insurance, etc., prompt the owner to use his or her car even when there are cheaper or more environmentally friendly alternatives, such as walking, car-pooling, or taking public transit. The result at rush hour is an unsustainable, congested flow of automobiles, each with one or two occupants. This results in political pressure to build more bridges and wider streets to speed the flow. A car-sharing co-op absorbs most of the fixed costs and converts them into variable costs for the member. Even at the highest utilization rate plan, with fixed costs of \$35 per month, there is a financial incentive for the member to car-pool, and to use that car only when absolutely necessary.

CAA estimated that in 1997 the average Canadian car owner paid more than \$6,600 for that form of transportation. The average member of a CSC might make fourteen trips per month, averaging two hours in duration and twenty-three kilometres in distance. Based on the Regular rate plan, this average member would be charged \$10/month + \$42/month for duration + \$20.50/month for distance, for a total of \$132.50/month, including GST and PST. Over twelve months, the cost to the CSC member is \$1,590, which is about one-quarter of the CAA estimate of the average cost of private vehicle ownership. Assuming the CSC imposes a 5 percent equity-building surcharge, the added \$79.50/year would be credited to the member's equity account, and presumably withdrawn when membership is terminated.

Another way to view this comparison is that private-vehicle ownership usually implies one, or possibly two, persons to be impacted by the costs. CSC's have eight to twelve members per vehicle owned. Though CSCs add a cost component of general and administrative expense, through shrewd buying and management, staff may be able to lower the costs of insurance, maintenance, and depreciation, etc. By enabling and encouraging multiple users of a vehicle on a daily and intra-daily basis, the costs of ownership can be shared by an astonishing number of individuals. To illustrate: at 0530, the car is booked by the newspaper carrier and returned to its spot at the apartment block by 0700. At 0700, a nurse leaves the apartment block, picking up three other nurses who work the same shift at Misericordia Hospital. At 1000, a neighbourhood resident operating a home-based beeswax candle business uses the car for pick-ups and deliveries, returning it by 1300. At 1300, another neighbourhood resident uses the car to pick up a rented belt-sander and some drywalling supplies, returning the car by 1500. At 1530, the four nurses ride home in the car. At 1900, a couple resident in the building go out to a wedding social in Ste. Anne, returning the car to its space at 0100 the following morning. In all, nine individuals shared one car within twenty-four hours.

With all its rules and restrictions, car-sharing is not appealing to everyone. I believe that the strongest supporters of car-sharing will be people who, from an environmental or faith perspective, would really prefer not to own a car. Further support may readily be found among people who have made a commitment to co-operative housing or co-housing. There may be others for whom affordability of a car has become a problem due to job loss or bereavement.

Finally, it seems essential that a source of grant funding should be prepared to support the general and administrative expenses for a number of years, as the organization grows to a size that will be self-sustaining.

Co-operative Alternatives is the only body in Northern Ireland entirely devoted to developing successful co-operatives and community benefit societies. We offer high quality range of advice on legal, financial, business and democratic governance. We provide tailored training and business support to all groups who want to do business in a co-operative way. Principles and values. Rules and Responsibilities. Opportunities in Car Sharing 2020: Carsharing to emerge as additional business opportunity for automotive manufacturer for customer retention and long term sustainability. Member. Carsharing subscriber base to be 14 Million in EU by 2020.Â Easy access to capital. Co-operative. Subscribers or members. 2010. Car-sharing systems Car-sharing systems in Poland Organized car-sharing Car-sharing maintenance. This is a preview of subscription content, log in to check access. References. 1. Pinderhughes, R.: Alternative Urban Futures: Planning for Sustainable Development in Cities Throught the World. Rowman & Littlefield Publishers, New York (2004)Google Scholar. 2. Taniguchi, E., Thompson, R.G., Yamada, T.: Recent trends and innovations in modelling city logistics.Â Harms, S., Truffer, B.: The Emergence of A Nationwide Carsharing Co-operative in Switzerland. Research report, EAWAG, DÃ¼bendorf (1998)Google Scholar. 28.