

RESEARCH REPORT



Methods Used Abroad to Support Access to Homeownership: A Research Survey



CMHC—HOME TO CANADIANS

Canada Mortgage and Housing Corporation (CMHC) has been Canada's national housing agency for more than 60 years.

Together with other housing stakeholders, we help ensure that Canada maintains one of the best housing systems in the world. We are committed to helping Canadians access a wide choice of quality, affordable homes, while making vibrant, healthy communities and cities a reality across the country.

For more information, visit our website at **www.cmhc.ca**

You can also reach us by phone at 1-800-668-2642
or by fax at 1-800-245-9274.

Outside Canada call 613-748-2003 or fax to 613-748-2016.

Canada Mortgage and Housing Corporation supports the Government of Canada policy on access to information for people with disabilities. If you wish to obtain this publication in alternative formats, call 1-800-668-2642.

Methods Used Abroad to Support Access to Homeownership: A Research Survey

Final Report

Submitted to

David Metzak

Project Officer, Canada Mortgage and Housing Corporation

Submitted by

John R. Miron

Centre for Urban and Community Studies, University of Toronto

With contributions by

Axel Börsch-Supan

Department of Economics, University of Mannheim

Donald R. Haurin

Department of Economics and Finance, Ohio State University

Patric H. Hendershott

Department of Finance, Ohio State University

Anne Laferrère

division Logement, Institut National de la Statistique et des Études Économiques

John MacCormick

formerly Ministry of Housing, New Zealand

John N. J. Muellbauer

Nuffield College, Oxford University

Marion Steele

Department of Economics, Guelph University

Judith Yates

School of Economics and Political Science, University of Sydney

July 2001

Purpose

Over the past few decades, households throughout the industrialized world have been buffeted by similar forces. Some of these forces are economic: others are social. One important process here has been globalization with its attendant industrial restructuring and its emphasis on economic competitiveness. Whatever its benefits, globalization may have undermined job security for many workers making them (and mortgage lenders) cautious about financing large purchases like homeownership. At the same time, social attitudes have changed. The "organization man" of the 1950s for whom having a wife and children at home was a prerequisite to career advancement has given way to the "yuppie", someone who is more likely to be single, childless and have different life objectives. Given that the incidence of homeownership has been slow to increase in recent years, this raises the question of whether homeownership aspirations have changed or measures (that is, programs, policies, and practices) that were designed for a different age and time now needlessly impede consumers from becoming homeowners.

This report reviews measures employed or contemplated in six nations (Germany, France, UK, USA, New Zealand, and Australia) over the past decade by governments, the private sector, and by public-private partnerships that improve access to homeownership in general, or extend the benefits of homeownership to underserved portions of the population. This report does not consider innovations in residential construction itself (e.g., land subdivision and planning, construction technology and building codes, or house design) as these are subjects of other studies. The report examines whether Canada has had experience with such measures and, if not, whether such measures might have some potential for further consideration in Canada. This report presents a broad survey of such measures (see the Appendix) from which are identified 84 measures with possible potential for Canada. Of these 84 measures, 16 were selected by the research project's Advisory Committee for detailed assessment. For each selected measure, the report examines the stated goals, identifies target household groups, and program impacts. In the team approach used here, a resource person in each of the six nations assisted in the collection and interpretation of information about that country, under the coordination and direction of two Canadian scholars: John Miron and Marion Steele. In each nation, the resource person has been chosen based on their reputation as housing policy analysts or policy practitioners. Miron and Steele provide the necessary adaptation of information to the Canadian context.

This study was conducted for Canada Mortgage and Housing Corporation under Part IX of the National Housing Act. The analysis, interpretations, and recommendations are those of the consultants and do not necessarily reflect the views of Canada Mortgage and Housing Corporation or those divisions of the corporation that assisted in the study.

Acknowledgements

The research team would like to acknowledge the role of the CMHC project manager, David Metzack, as well as other members of the project steering committee for their constructive critiques throughout this project. The research assistance of Gillian Leslie and Joan Peake is gratefully acknowledged

In preparing this material, the research team sought out expertise in each of the subject countries, and we wish to acknowledge the invaluable assistance of these individuals in providing background material, comments, and interpretation. At the same time, the research team takes responsibility for any errors or omissions that remain. These national experts were:

Australia:

Judith Yates, Associate Professor of Economics, University of Sydney. Phone 61 (0)2 9351 3061. E-mail judyy@econ.usyd.edu.au

Ken Maxwell, Chief Executive Officer, Home Purchase Assistance Authority. Phone +61 (0)2 9210 5610. Fax: +61 (0)2 9210 5601. E-mail ceo@hpaa.nsw.gov.au. (re Australia's mortgage assistance schemes)

Great Britain:

Dr. Alan Holmans, Department of Land Economy, University of Cambridge

David McDougall, Bank of Scotland Mortgages. 011-44-845-306-0033.

John Muellbauer, Official Fellow, Nuffield College, Oxford University. E-mail: john.muellbauer@Economics.oxford.ac.uk

France:

Anne LaFerrère, administrateur de l'Institut National de la Statistique et des Études Économiques, INSEE, division Logement, f330, 18 Bd A. Pinard, 75675 Paris cedex 14, France. Phone (33) 1 41 17 54 92. E-mail: anne.laferriere@insee.fr

Anne-Marie Fribourg, Chargée de mission à la Direction Générale de l'Urbanisme de l'Habitat et de la Construction, ministère de l'Équipement, des transports et du Logement
Claude Taffin, Crédit Foncier de France.

Germany:

Axel Börsch-Supan, Professor of Economics, University of Mannheim. Phone 0621-292 5286. E-mail abs@econ.uni-mannheim.de.

New Zealand:

John MacCormick, formerly Senior Policy Analyst, Ministry of Housing, New Zealand.

United States:

Patric Hendershott, Professor of Finance, Ohio State University. E-mail: hendersh@cob.ohio-state.edu.

Donald Haurin, Professor of Economics and Finance, Ohio State University. Phone (614) 292-0482. E-mail drh@ohstsbs.sbs.ohio-state.edu.

Eliot Horowitz, U.S. Department of Housing and Urban Development. Phone (202) 708-2700.

Jackie Johnson, Office of Native American Programs, U.S. Department of Housing and Urban Development. Phone (202) 401-7914.

Trisha Riggs, Director, Public Affairs, National Association of Realtors. Phone (202) 383-1016. E-mail triggs@realtors.org.

Edward Szymanoski, Policy Development and Research, U.S. Department of Housing and Urban Development. Phone (202) 708-0421 ext. 5879. (re HUD programs)

Kitty Woodley, U.S. Department of Housing and Urban Development. Phone (202) 708-0317 (re Homeownership counseling).

Ted Wright, National Association of Realtors. Phone (202) 383-1206.

Peter Zorn, Freddie Mac. E-mail Peter_Zorn@freddiemac.com.

Executive Summary

From an economic perspective, the current situation of homeownership in Canada may seem anomalous. Canada climbed out of recession a few years ago. Income and job prospects are brighter now than they have been in many years. With the notable exception of a few pockets of hot activity, house prices in nominal terms as well as real terms have not risen much in recent years, and mortgage interest rates are near historic lows. All of these indicators suggest that the demand for housing in general, and homeownership in particular, should be strong. Nonetheless, overall the rate of homeownership appears to be remaining roughly constant. Given that social surveys continue to show the great importance attached by Canadians to the “dream” of homeownership, why hasn’t the rate of homeownership increased? What can government and industry do to help improve access to homeownership?

This report examines the possibility that one or more measures adapted by governments or industry in other countries in recent years has the potential to improve access to homeownership in Canada. Although every country is, in some respects, unique in the way that housing and accommodation are produced and delivered, there are broad similarities between Canada and a number of other advanced market economies: notably Australia, Britain, France, Germany, New Zealand, and the United States. This report focuses specifically on measures (programs, policies, or practices) employed or contemplated in these six nations over the past decade by governments and the private sector. The report asks whether these measures have the potential to improve access to homeownership in Canada, or extend the benefits of homeownership to underserved portions of our population. This report does not consider innovations in residential construction itself (e.g., land subdivision and planning, construction technology and building codes, or house design) as these are subjects of other studies.

This study was undertaken by a team of scholars and policy analysts that included two persons from Canada (Miron and Steele), two resource persons from the U.S. (Hendershott and Haurin), and one resource person from each from the remaining countries (Börsch-Supan in Germany, Laferrère in France, Muellbauer in Britain, MacCormick in New Zealand, and Yates in Australia). In each nation, resource persons was chosen based on their reputation as a housing policy analyst and/or policy practitioner. The foreign experts collected and interpreted information and provided a detailed picture of measures and conditions in their country, and the two Canadians provided a framework and the Canadian context. In addition, the research team was complemented by an Advisory Committee assembled by CMHC.

This report presents a conceptual framework for identifying such measures (see the Appendix). This framework is a list of seven broad strategies for improving access to homeownership. This framework is then used to spot measures in the six selected countries that may not have been tried in Canada. The strategies are as follows.

- *The option to own.* This strategy focuses on factors shaping a consumer's choice between renting and owning. This includes encouraging households to save towards a downpayment; providing other downpayment assistance; promoting flexibility in mortgage underwriting criteria; reducing the out-of-pocket cost of homeownership through subsidies and tax expenditures; reducing the transaction cost in home purchasing.
- *New times, new households.* This strategy focuses on the fact that households being formed today differ from households that were being formed three or four decades ago. Over the past four decades, the number of nontraditional households (that is, that do not contain a husband-wife couple with children present) has proliferated. It is among these nontraditional households that homeownership rates are the lowest. In general, nontraditional households are smaller in size, less affluent in terms of both income and wealth, and have different housing needs from traditional

households. In many cases, the traditional form of homeownership, the single detached dwelling, is unsuitable to nontraditional households. For them, such dwellings may well appear too expensive, too large, or too remote, or the financing conditions may be too daunting. To improve access to homeownership, we might do well to focus on how to make homeownership more attractive to this group. This might include increasing outreach to underserved groups as well as assisting homeowners in mortgage distress.

- *The bias against home ownership.* This strategy focuses on the idea that homeownership may receive biased treatment, in some ways, vis-à-vis other forms of investment, or vis-à-vis renting. This includes putting mortgage instruments on a par with other financial instruments that involve the same level of risk, and removing bias in the treatment of owners and renters in social and tax policy. This might include altering the taxation of capital gains, permitting depreciation allowance for homeowners, altering the application of sales taxes, reformulating property taxes, and allowing mortgage interest deductibility.
- *Price stability.* This strategy focuses on the role of price stability in the housing market in promoting home ownership. While households are attracted to homeownership in part by the potential for capital gains, they are also risk-averse. Households don't want to see the bursting of price bubbles. In this sense, dampening price speculation in the housing market, by smoothing out price swings, may actually work to increase the demand for homeownership by making it more attractive to households that fear a sudden downturn in house prices.
- *Consumer information.* This strategy focuses on improving consumer knowledge about household budgeting, the advantages of homeownership, and the financing options available. In this strategy, we might promote home-buyer counseling.
- *Supply-side subsidies.* This strategy focuses on industry-originated (supply-side) subsidies to spur demand for new housing.
- *Sale of public housing.* This strategy focuses on the conversion of public-sector rental housing into homeownership.

From across the six nations surveyed, a search for measures that could be thought to be pursuant to one or more of these strategies, identified a list of 84 that might have potential for adoption and/or adaptation in Canada. In this process, no attempt was made to second-guess how government or industry might feel about the appropriateness of each particular measure. The intent was to be comprehensive rather than selective.

These 84 measures were then submitted to the Advisory Committee. From among these, the Advisory Committee selected 16 for detailed assessment. For each selected measure, the report examines the stated goals, identifies target household groups, and program impacts. The sixteen selected measures were as follows.

- 1 Temporary Mortgage Payment Protection Scheme (Australia)
- 2 Mortgage Brokers (Australia)
- 3 Reducing Realtor and Legal Transaction Costs (United Kingdom)
- 4 Bank of Scotland's Shared Equity Ownership Scheme (United Kingdom)
- 5 Taxation of Sublet Income (United Kingdom)
- 6 EL Home Savings Account (France)

- 7 PTZ Interest-free Loan (France)
- 8 Bausparkassen (Germany)
- 9 Universal Accounts (United States)
- 10 Mortgage Revenue Bonds (United States)
- 11 Freddie Mac's Affordable Gold Programs (United States)
- 12 Automated Underwriting and Credit Scoring (United States)
- 13 Mutual Help Ownership Opportunities for Aboriginals (United States)
- 14 The National Association of Realtors' "One America" Training Program (United States)
- 15 HELP and Homebuyer Counselling (United States)
- 16 Risk-based Underwriting (United States)

The layout of this report is as follows. The Introduction explains the goals and objectives of the study, describes the members of the research team and their roles, lists the Advisory Committee and their responsibilities, explains the eight strategies examined, discusses the 84 measures that are identified therefrom, and details the basis on which the Advisory Committee selected from among these. The Methodology section explains how each of these 16 selected measures is to be assessed with respect to applicability to Canada. Then, the following six sections are organized nation-by-nation. A national profile is presented to set the stage for discussion of the selected measures, and then the selected measures are assessed. An Appendix lists the 84 measures identified arranged by the seven strategies.

In summary, our assessment of the sixteen selected measures is as follows:

- 1 Temporary Mortgage Payment Protection Scheme. There has been no equivalent government subsidized temporary mortgage payment protection scheme in Canada. CMHC, however, does operate a Mortgage Rate Protection Program whereby homeowners can purchase insurance to offset higher mortgage payments arising from interest rate increases when they renew their mortgages.
- 2 Mortgage Brokers. Canada's system of housing finance encompasses measures which provide functionality and benefits equivalent to those associated with Australian mortgage brokers.
- 3 Reducing Realtor and Legal Transaction Costs. Advances in technology and increased competition among real estate agents, brokers, appraisers, lawyers, etc., are achieving similar cost reduction impacts in the Canadian housing resale system-a system which differs significantly from the U.K. system.
- 4 Bank of Scotland's Shared Equity Ownership Scheme. There has not been an equivalent measure of this kind employed in Canada.
- 5 Taxation of Sublet Income. Canada's taxation of homeowner's "sublet" rental income, while different from the U.K., is more conducive to encouraging access to homeownership.
- 6 EL Home Savings Account. Canada has had experience with a somewhat similar initiative under federal and provincial sponsored Registered Home Ownership Savings Programs (RHOSPs)

- 7 PTZ Interest-free Loan. The Canadian federal government's Home Buyer's Plan scheme embodies a similar zero-interest mortgage loan but does not require the government to pay lenders a loan interest-rate subsidy.
- 8 Bausparkassen. Canada has not had experience with an equivalent measure of this type because access to housing finance funds has not experienced the need for capital rationing.
- 9 Universal Accounts. A number of financial institutions in Canada have recently adopted this kind of measure.
- 10 Mortgage Revenue Bonds. There has not been an equivalent measure of this kind employed in Canada.
- 11 Freddie Mac's Affordable Gold Programs. Differences in the mortgage insurance programs used in Canada and the U.S. results in Canada having similar maximum insured "loan to value" ratios as are available in the U.S.
- 12 Automated Underwriting and Credit Scoring. Canadian mortgage insurers employ automated underwriting and credit scoring which are conceptually similar to those employed in the U.S.
- 13 Mutual Help Ownership Opportunities for Aboriginals. Canada has had experience with a range of measures which embody the key characteristics of this U.S. measure.
- 14 The National Association of Realtors' "One America" Training Program. There has not been an equivalent measure of this kind employed in Canada.
- 15 HELP and Homebuyer Counselling. Initiatives in Canada have focused mainly on homebuyer education through information dissemination with limited efforts being undertaken in the counseling area. Canada has not had, however, experience with a formalized, comprehensive, and lengthy nation-wide system as exists under the HELP program and related measures being delivered in the U.S.
- 16 Risk-based Underwriting. While this practice in the U.S. has been applied to some extent in specific submarkets, Canada has had no experience with this concept as applied to individual mortgage loan applications.

Résumé

D'un point de vue économique, la situation actuelle de l'accession à la propriété au Canada peut sembler une anomalie. Le Canada s'est sorti d'une récession il y a quelques années. Les perspectives de revenu et d'emploi sont meilleures maintenant que depuis de nombreuses années. À l'exception de quelques poches d'activité fébrile, les prix des maisons, en chiffres absolus comme en valeur réelle, n'ont guère augmenté ces dernières années et les taux d'intérêt hypothécaires sont proches des creux historiques. Tous ces indicateurs donnent à penser que la demande de logements en général, et de logements de propriétaire-occupant en particulier, devrait être forte. Néanmoins, dans l'ensemble, le taux de propriété semble demeurer assez constant. Étant donné que les enquêtes sociales continuent d'attester la grande importance que les Canadiens attachent au « rêve » de devenir propriétaire, pourquoi la proportion de propriétaires n'a-t-elle pas augmenté? Qu'est-ce que le gouvernement et l'industrie peuvent faire pour améliorer l'accession à la propriété?

Nous examinons ici la possibilité qu'une ou plusieurs des mesures adoptées par les gouvernements ou l'industrie dans d'autres pays ces dernières années soient susceptibles d'améliorer l'accession à la propriété au Canada. Bien que chaque pays soit unique à certains égards quant à la façon de produire et de fournir les logements et l'hébergement, il existe de larges similitudes entre le Canada et plusieurs autres économies de marché avancées, notamment l'Australie, la Grande-Bretagne, la France, l'Allemagne, la Nouvelle-Zélande et les États-Unis. Nous nous penchons expressément sur les mesures (programmes, politiques ou pratiques) utilisées ou envisagées dans ces six pays au cours de la dernière décennie par les gouvernements et le secteur privé. Nous nous demandons si ces mesures sont susceptibles d'améliorer l'accession à la propriété au Canada ou d'offrir les avantages de la propriété à des portions mal servies de la population. Nous ne traitons pas des innovations en construction résidentielle proprement dite (p. ex. lotissement et planification, technologie de construction et codes du bâtiment ou conception des maisons) qui font l'objet d'autres études.

La présente étude a été réalisée par une équipe de spécialistes et d'analystes des politiques comprenant deux personnes du Canada (Miron et Steele), deux personnes-ressources des États-Unis (Hendershott et Haurin) et une personne-ressource de chacun des autres pays (Börsch-Supan en Allemagne, Laferrère en France, Muellbauer en Grande-Bretagne, MacCormick en Nouvelle-Zélande et Yates en Australie). Dans chaque pays, les personnes-ressources ont été choisies en fonction de leur réputation comme spécialiste ou praticien des politiques de logement. Les experts étrangers ont recueilli et interprété l'information et brossé un tableau détaillé des mesures et des conditions dans leur pays, tandis que les deux Canadiens ont fourni un cadre d'analyse et le contexte canadien. En outre, l'équipe de recherche était complétée par un comité consultatif constitué par la SCHL.

On trouvera ici un cadre conceptuel permettant d'identifier ces mesures (voir l'annexe). Il s'agit d'une liste de sept grandes stratégies pour améliorer l'accession à la propriété. Ce cadre sert ensuite à repérer des mesures appliquées dans les six pays choisis qui n'ont peut-être pas été essayées au Canada. Ces stratégies sont les suivantes :

- *L'option d'être propriétaire.* Cette stratégie porte sur les facteurs qui conditionnent le choix que fait le consommateur d'être propriétaire ou locataire. Ceci comprend encourager les ménages à épargner en vue de la mise de fonds; favoriser la souplesse dans les critères de souscription des

prêts hypothécaires; réduire le coût de l'accession à la propriété par des subventions et des dépenses fiscales; réduire le coût de transaction à l'achat d'un logement.

- *Autres temps, autres ménages.* Cette stratégie est axée sur le fait que les ménages qui se forment aujourd'hui diffèrent de ceux qui se formaient il y a trois ou quatre décennies. Au cours des quatre dernières décennies, le nombre de ménages non traditionnels (c'est-à-dire ceux qui ne sont pas constitués d'un couple mari-femme avec des enfants) a beaucoup augmenté. C'est dans les ménages non traditionnels que les taux de propriété sont les plus faibles. En général, les ménages non traditionnels sont de plus petite taille, moins riches en termes de revenu et d'avoirs et ont des besoins de logement différents de ceux des ménages traditionnels. Souvent, la forme traditionnelle de logement de propriétaire-occupant, la maison individuelle isolée, ne convient pas aux ménages non traditionnels pour qui ces habitations peuvent sembler trop chères, trop grandes, trop éloignées ou assorties de modalités de crédit trop lourdes. Pour améliorer l'accession à la propriété, nous aurions peut-être intérêt à rendre la propriété plus attrayante pour ce groupe, par exemple en nous efforçant de rejoindre les groupes mal servis ou en aidant les propriétaires qui ont du mal à rembourser leur prêt hypothécaire.

- *Le préjugé contre la propriété.* Cette stratégie porte sur l'idée que la propriété pourrait être à certains égards victime de préjugés par rapport à d'autres formes d'investissement ou par rapport à la location. Ceci comprend mettre les instruments hypothécaires sur le même pied que les autres instruments financiers qui comportent le même niveau de risque et éliminer le biais dans le traitement des propriétaires et les locataires en matière de politique sociale et fiscale. Cela pourrait comprendre modifier le régime d'imposition des gains de capital, permettre aux propriétaires la déduction pour amortissement, modifier l'application des taxes de vente, reformuler les impôts fonciers et permettre la déduction des intérêts hypothécaires.

- *La stabilité des prix.* Cette stratégie porte sur le rôle de la stabilité des prix dans le marché du logement pour favoriser l'accession à la propriété. Même si les ménages sont attirés à la propriété en partie par le potentiel de gain de capital, ils sont également peu enclins au risque. Les ménages ne veulent pas voir éclater la bulle des prix. En ce sens, si on amortissait la spéculation dans le marché du logement en lissant les écarts de prix, on pourrait en fait accroître la demande de logements de propriétaire-occupant en les rendant plus attrayants pour les ménages qui craignent une chute soudaine du prix des maisons.

- *Information des consommateurs.* Cette stratégie porte sur l'amélioration des connaissances des consommateurs quant au budget du ménage, aux avantages de la propriété et aux options de financement offertes. Dans le cadre de cette stratégie, nous pourrions promouvoir les conseils aux acheteurs.

- *Subventions de l'offre.* Cette stratégie porte sur des subventions émanant de l'industrie (de l'offre) pour stimuler la demande de logements neufs.

- *Vente de logements publics.* Cette stratégie porte sur la conversion de logements locatifs du secteur public en logements de propriétaire-occupant.

Dans les six pays étudiés, la recherche de mesures susceptibles de cadrer avec une ou plusieurs de ces stratégies a produit une liste de 84 mesures qui pourraient être adoptées ou adaptées au Canada. Au cours de cette recherche, nous n'avons pas tenté de prédire comment le gouvernement ou l'industrie pourraient réagir à chaque mesure. Nous voulions être complets et non sélectifs.

Ces 84 mesures ont ensuite été soumises au Comité consultatif qui en a retenu 16 en vue d'une évaluation détaillée. Pour chaque mesure, nous indiquons les buts exprimés, les ménages ciblés et les effets du programme. Ces seize mesures sont les suivantes :

- 1 Régime de protection temporaire des versements hypothécaires (Australie)
- 2 Courtiers hypothécaires (Australie)
- 3 Réduire les frais d'agence et les frais juridiques pour les transactions immobilières (Royaume-Uni)
- 4 Régime de partage de la mise de fonds de la Banque d'Écosse (Royaume-Uni)
- 5 Imposition du revenu de sous-location (Royaume-Uni)
- 6 Compte d'épargne-logement (France)
- 7 Prêt sans intérêt PTZ (France)
- 8 Bausparkassen (Allemagne)
- 9 Comptes universels (États-Unis)
- 10 Obligations de revenu hypothécaire (États-Unis)
- 11 Programmes « Affordable Gold » de Freddie Mac (États-Unis)
- 12 Souscription et cotation de crédit informatisées (États-Unis)
- 13 Programme d'entraide pour l'accèsion des Autochtones à la propriété (États-Unis)
- 14 Programme de formation « One America » de l'association nationale des courtiers immobiliers (États-Unis)
- 15 Programme HELP et conseils aux acheteurs (États-Unis)
- 16 Souscription axée sur le risque (États-Unis)

Le plan du rapport est le suivant. L'introduction explique les buts et objectifs de l'étude, présente les membres de l'équipe de recherche et leur rôle, les membres du comité consultatif et leurs fonctions, les huit stratégies étudiées, les 84 mesures dégagées à partir de ces stratégies et les motifs qui fondent le choix du comité consultatif. La section méthodologie explique comment évaluer chacune des 16 mesures retenues en fonction de l'application au Canada. Les six sections suivantes traitent chacune d'un pays. Un profil national situe les mesures, après quoi elles sont évaluées. On trouve en annexe la liste des 84 mesures, regroupées selon les sept stratégies.

Voici en résumé notre évaluation des seize mesures retenues :

- 1 Régime de protection temporaire des versements hypothécaires. Il n'y a eu aucun régime semblable de protection temporaire des versements hypothécaires au Canada. Cependant, la SCHL offre un Programme de protection des taux hypothécaires par lequel les

propriétaires peuvent acheter une assurance compensant la hausse des mensualités hypothécaires par suite d'une augmentation des taux d'intérêt au moment du renouvellement du prêt.

2 Courtiers hypothécaires. Au Canada, le système de financement de l'habitation comprend des mesures dont la fonction et les avantages équivalent à ceux qu'offrent les courtiers hypothécaires australiens.

3 Réduire les frais d'agence et les frais juridiques pour les transactions immobilières. Les progrès de la technologie et une concurrence accrue entre les agents d'immeuble, les courtiers, les évaluateurs, les avocats, etc. entraînent des réductions semblables des coûts dans le système canadien de la revente, système qui diffère beaucoup de celui du Royaume-Uni.

4 Régime de partage de la mise de fonds de la Banque d'Écosse. Aucune mesure équivalente de ce genre n'a été utilisée au Canada.

5 Imposition du revenu de sous-location. L'imposition du revenu locatif (« de sous-location ») des propriétaires-occupants, bien qu'elle soit différente de celle du Royaume-Uni, a plus de chances d'encourager l'accession à la propriété.

6 Compte d'épargne-logement. Le Canada a connu une initiative assez semblable dans le cadre des régimes enregistrés d'épargne logement (REEL) fédéral et provinciaux.

7 Prêt sans intérêt PTZ. Le Régime d'accession à la propriété du gouvernement fédéral du Canada intègre un prêt hypothécaire sans intérêt semblable, sans obliger le gouvernement à subventionner les prêteurs.

8 Bausparkassen. Le Canada n'a aucune expérience d'une mesure équivalente, car l'accès au crédit hypothécaire n'a jamais eu besoin de rationnement des capitaux.

9 Comptes universels. Plusieurs institutions financières canadiennes ont récemment adopté des mesures de ce genre.

10 Obligations de revenu hypothécaire. Aucune mesure équivalente n'a été utilisée au Canada.

11 Programmes « Affordable Gold » de Freddie Mac. En raison des différences entre les programmes d'assurance hypothécaire des deux pays, le rapport prêt-valeur maximum assurable est semblable au Canada à ce qui est offert aux États-Unis.

12 Souscription et cotation de crédit informatisées. Les assureurs hypothécaires canadiens utilisent des méthodes informatisées de souscription et de cotation de crédit qui sont conceptuellement semblables à celles en usage aux États-Unis.

13 Programme d'entraide pour l'accession des Autochtones à la propriété. Le Canada a connu un large éventail de mesures intégrant les principales caractéristiques de cette mesure américaine.

14 Programme de formation « One America » de l'association nationale des courtiers immobiliers. Aucune mesure équivalente n'a été utilisée au Canada.

15 Programme HELP et conseils aux acheteurs. Les initiatives canadiennes visaient surtout à informer les acheteurs par la diffusion de renseignements; on a peu fait dans le domaine des conseils. Le Canada n'a cependant pas connu un système formalisé, global et durable, à l'échelle

nationale, semblable à ce qu'offrent le programme HELP et les mesures connexes aux États-Unis.

16 Souscription axée sur le risque. Alors que cette pratique a été appliquée aux États-Unis dans certains sous-marchés, le Canada n'a aucune expérience de l'application de ce concept au niveau de la demande individuelle de prêt hypothécaire.



National Office

Bureau national

700 Montreal Road
Ottawa ON K1A 0P7
Telephone: (613) 748-2000

700 chemin de Montréal
Ottawa ON K1A 0P7
Téléphone : (613) 748-2000

Puisqu'on prévoit une demande restreinte pour ce document de recherche, seul le résumé a été traduit.

La SCHL fera traduire le document si la demande le justifie.

Pour nous aider à déterminer si la demande justifie que ce rapport soit traduit en français, veuillez remplir la partie ci-dessous et la retourner à l'adresse suivante :

Centre canadien de documentation sur l'habitation
Société canadienne d'hypothèques et de logement
700, chemin Montréal, bureau CI-200
Ottawa (Ontario)
K1A 0P7

Titre du rapport: _____

Je préférerais que ce rapport soit disponible en français.

NOM _____

ADRESSE _____

rue

App.

ville

province

Code postal

No de téléphone () _____

Table of Contents

	Page
Title Page	1
Purpose	2
Acknowledgements	3
Executive Summary	5
Table of Contents	9
List of Tables	10
Introduction	12
Methodology	20
Australia	
National profile	31
1. Temporary Mortgage Payment Protection Scheme	37
2. Mortgage Brokers	39
United Kingdom	
National profile	43
3. Reducing Realtor and Legal Transaction Costs	49
4. Bank of Scotland's Shared Equity Ownership Scheme	54
5. Taxation of Sublet Income	56
France	
National profile	58
6. Home Savings Account (EL)	63
7. Interest-free Loan (PTZ)	68
Germany	
National profile	72
8. Bausparkassen	76
New Zealand	
National profile	82
United States	
National profile	87
9. Universal Accounts	98
10. Mortgage Revenue Bonds	100
11. Freddie Mac's Affordable Gold Programs	104
12. Automated Underwriting and Credit Scoring	108
13. Mutual Help Ownership Opportunity for Aboriginals	111
14. NAR's "One America" Training Program	116
15. HELP and Homebuyer Counselling	117
16. Risk-based Underwriting	119
Appendix	124
References	138

List of Tables

	Page
Canada	
Table 1 Total persons (thousands) in private dwellings by marital status, living arrangement and tenure, showing age of persons, Canada, 1996.	27
Table 2 Husband-wife families (thousands) in private dwellings by living arrangement and tenure showing age of husband, Canada, 1996	28
Table 3 Lone-parent families (thousands) in private dwellings by living arrangement and tenure showing age of husband, Canada, 1996	28
Table 4 Nonfamily persons (thousands) in private dwellings by living arrangement and tenure showing age of person, Canada, 1996	28
Australia	
Table 5 Households (thousands) by living arrangement by tenure showing age of head, Australia, 1996.	31
Table 6 Occupied private dwellings (thousands) by tenure and dwelling type, showing number of bedrooms, Australia, 1996	32
Table 7 Households (thousands) by structure and tenure type, Australia, 1995-96	32
Table 8 Households (thousands) by type and tenure, Australia, 1995-96	33
Table 9 Housing finance commitments (A\$ millions) by type of lender, Australia, 12 months ending October 1999.	40
Great Britain	
Table 10 Households, persons in households, and average household size, Britain, 1991.	43
Table 11 Dwellings and household spaces in dwellings with residents (all data in thousands), Britain, 1991.	44
Table 12 Households (thousands) by tenure showing rooms, England, 1996-1997	44
Table 13 Persons (thousands) by living arrangements by tenure showing age, England, 1996-97.	45
Table 14 Transaction costs as percentage of typical house selling price, England & Wales versus Canada	50
Table 15 Amounts (C\$) for selected items of transaction cost, England & Wales versus Canada	53
France	
Table 16 Total persons (thousands) in private dwellings by marital status, living arrangement and tenure, showing age of persons, France 1996	58
Table 17 Occupied private dwellings (thousands) by tenure and dwelling type, showing number of rooms, France, 1996	59
Table 18 Epargne logement plan conditions and terms, 1999.	65
Table 19 Mortgages held by mortgagor households, France, 1996.	65
Table 20 Percentage of households in an age group who hold specific type of asset, France, 1998.	66
Table 21 Household mortgage loans from PEL accounts in FF billion	66
Table 22 Annual cost of completion bonuses under épargne Logement (part of bonus allocated to housing investment) in 1984 FF billion, France, 1984-1996.	68
Table 23 Income thresholds for PTZ participants, France, 1997.	69
Table 24 Repayment conditions for PTZ loans, France, 1999.	69
Table 25 Evolution of the cost of PAP and PTZ (in 1984 FF billion)	70
Germany	
Table 26 Total persons (thousands) in private dwellings by marital status, living arrangement and tenure, showing age of persons, Germany, 1997	72
Table 27 Occupied private dwellings (thousands) by tenure and dwelling type, showing number of rooms, Germany, 1997.	73
Table 28 Subsidies and Tax Expenditures for Bausparkassen Program	79

New Zealand

Table 29	Population, families, dwellings, and households (thousands), New Zealand, 1996	82
Table 30	Occupied private dwellings and occupants (thousands) by type, New Zealand, 1996	83
Table 31	Homeowner households (thousands) showing percentage of all households, New Zealand, 1986-96	83

United States

Table 32	Private dwellings (thousands) by tenure and dwelling type, showing size (number of rooms), United States, 1997.	88
Table 33	Total persons (thousands) by marital status, household status and tenure, showing age of persons, U.S., 1997	88
Table 34	Total families and nonfamily persons (thousands) in private dwellings by family status, number of children present and tenure by age	89
Table 35	Federal cap (billions of current dollars) on MRB's issued for new mortgages	102

Introduction

Goals and Objectives of the Research

From an economic perspective, the current situation of homeownership in Canada may seem anomalous. Canada climbed out of recession a few years ago. Income and job prospects are brighter now than they have been in many years. With the notable exception of a few pockets of hot activity, house prices in nominal terms as well as real terms have not risen much in recent years, and mortgage interest rates are near historic lows. All of these indicators suggest that the demand for housing in general, and homeownership in particular, should be strong. Nonetheless, overall the rate of homeownership appears to be remaining roughly constant. Given that social surveys continue to show the great importance attached by Canadians to the "dream" of homeownership, why hasn't the rate of homeownership increased? What can government and industry do to help improve access to homeownership?

Over the past few decades, households throughout the industrialized world have been buffeted by similar forces. Some of these forces are economic: others are social. One important process here has been globalization with its attendant industrial restructuring and its emphasis on economic competitiveness. Whatever its benefits, globalization may have undermined job security for many workers making them (and mortgage lenders) cautious about financing large purchases like homeownership. At the same time, social attitudes have changed. The "organization man" of the 1950s for whom having a wife and children at home was a prerequisite to career advancement has given way to the "yuppie", someone who is more likely to be single, childless and have different life objectives. Given that the incidence of homeownership has been slow to increase in recent years, this raises the question of whether (1) homeownership aspirations have changed or (2) measures that were designed for a different age and time now needlessly impede consumers from becoming homeowners.

This report examines the possibility that one or more measures adapted by governments or industry in other countries in similar circumstances in recent years may have some potential to improve access to homeownership in Canada. Although every country is, in some respects, unique in the way that housing and accommodation are produced and delivered, there are broad similarities between Canada and a number of other advanced market economies: notably Australia, Britain, France, Germany, New Zealand, and the United States. This report focuses specifically on measures (programs, policies, or practices) employed or contemplated in these six nations over the past decade by governments and the private sector. The report asks whether these measures have the potential to improve access to homeownership in Canada, or extend the benefits of homeownership to underserved portions of our population. This report does not consider innovations in residential construction itself (e.g., land subdivision and planning, construction technology and building codes, or house design) as these are subjects of other studies.

The Research Team

This study was undertaken by a team of scholars and policy analysts that included two persons from Canada (Miron and Steele), two resource persons from the U.S. (Hendershott and Haurin), and one resource person from each from the remaining countries: Börsch-Supan (Germany), Laferrère (France), Muellbauer (Britain), McCormick (New Zealand), and Yates (Australia). In each nation, resource persons were chosen based on their reputation as a housing policy analyst or policy practitioner. The foreign experts collected and interpreted information and provided a detailed picture of measures and conditions in their country, and the two Canadians provided a framework and the Canadian context.

John R. Miron is Professor of Geography and Planning at the University of Toronto as well as a Research Associate of the Centre for Urban and Community Studies (University of Toronto). He has published two books on housing and housing policy in Canada (*House, Home and Community* and *Housing in Postwar Canada*) and has authored dozens of journal articles and book chapters in the area.

Marion Steele is Associate Professor of Economics. She has published several monographs on housing (for Statistics Canada, the Ontario Economic Council, and the Commission of Inquiry into Residential Tenancies) and has numerous journal articles.

Axel Börsch-Supan is Professor of Macroeconomics and Economic Policy, University of Mannheim, Germany. His research interests are in the areas of household savings behavior, pensions and retirement behavior, and housing market. He has published numerous journal articles in the area. He has been consultant to Abt Associates, the World Bank, and the OECD (Paris).

Judith N. Yates is Associate Professor of Economics, University of Sydney, Australia. She has published numerous articles in the area of homeownership and housing policy. She was seconded to the Australian Government to work on their "National Housing Strategy" and has served on a number of government committees including a Ministerial Advisory Committee on Housing Access, and a Ministerial Taskforce on Affordable Housing.

Patric H. Hendershott is Galbraith chair in Real Estate, and Professor of Finance and Public Policy, Ohio State University. He is a past editor of the *Journal of the American Real Estate and Urban Economics Association*, and North American editor of the *Journal of Property Research*. He has served on the editorial boards of the *Journal of Housing Economics*, *Journal of Housing Research*, *Housing Policy Debate*, *Regional Science and Urban Economics*, and *Housing Finance Review*.

Donald R. Haurin is Professor of Economics and Finance and Associate Dean, College of Social and Behavioural Sciences, Ohio State University. He has written numerous journal articles in the area of housing economics and policy and was editor of the *Journal of the American Real Estate and Urban Economics Association*. Don Haurin and Patric Hendershott are arguably the best-known American economists today working in the area of homeownership.

Anne Laferrère is head of Division Logement at the Institut National de la Statistique et des Etudes Economiques (INSEE) in Paris, France. She has published numerous articles in the area of family and households, mainly focused on intergenerational asset transfers. She has access to large amounts of data from recent housing surveys in France, and a network of colleagues locally who helped provide information on French initiatives in homeownership.

John MacCormick, is formerly a Senior Policy Analyst with the New Zealand Ministry of Housing. He was responsible for providing high-quality timely advice to the Minister of Housing on a range of housing policy issues. This was during the mid-1990s at a time of great change in the nature of New Zealand housing policy.

John NJ Muellbauer is Official Fellow, Nuffield College, Oxford University, England. He is an eminent Economist who has written three books (including *The Great British Housing Disaster and Economic Policy*) and several dozen journal articles and book chapters. He has strong interests in both housing policy in Europe and empirical methodology and has also written extensively on German policy towards homeownership.

The Advisory Committee

In addition, the research team was complemented by an Advisory Committee assembled by CMHC. This included persons from various divisions of the Corporation as well as housing sector stakeholders in the housing construction and finance community.

The Process of Selecting Measures

This report considers a range of measures (that is, programs, policies, and practices) employed or contemplated in six nations (Germany, France, UK, USA, New Zealand, and Australia) over the past decade that improve access to homeownership in general, as well as initiatives that extend the benefits of homeownership to underserved portions of the population. The measures included ones that change (1) the income tax system, (2) the sales tax system, or (3) the system of financing homeownership, or that encourage (4) new housing tenure forms or (5) saving for homeownership. Under (3) are included changes in laws governing mortgage lending by financial institutions, innovative mortgage insurance programs for underserved groups, innovative qualification guidelines, perhaps insured by a subsidized insurance system. Initiatives under (4) include encouraging forms that are unusual or nonexistent: e.g., long leases and provisions for insuring mortgages for long leases. Under (5) are programs like the Ontario Homeownership Savings Plan which shelter from income tax the returns to savings for home purchase.

How might the federal government and industry work to improve access to homeownership in Canada? We begin with a list of seven broad strategies for improving access to homeownership.

- *Strategy 1.* Focus on factors shaping a consumer's choice between renting and owning. This includes the following kinds of measures
 - Encourage households to save towards a downpayment. It is thought that consumers are more likely to become homeowners the larger the amount that they have saved toward a potential downpayment. Savings has become more of a policy issue in recent decades both because increasing student loan debt has left many young adults starting their careers without any net savings and because other savings programs such as Canada Pension Plan and Registered Retirement Savings Plans compete with saving toward homeownership in Canada. Several countries have savings schemes that encourage households to save toward a first home. The closest measures tried in Canada were the RHOSP scheme and the recent initiative to allow taxpayers to borrow from their Registered Retirement Savings Plans toward a first home purchase.
 - Provide other downpayment assistance. These are measures to reduce the amount that consumers must save toward a downpayment. The idea here is to get households into homeownership at an earlier stage in their housing careers by lowering the downpayment hurdle.
 - Promote flexibility in mortgage underwriting criteria. Lender requirements are critical to the homeownership decision. Relaxing lending requirements could speed the transition to ownership. Minority households also have less wealth (age adjusted), making ownership difficult to attain.
 - Reduce the out-of-pocket cost of homeownership by offering interest subsidies, directly or through tax expenditures, making homeownership a more attractive option for households.
 - Make homeownership more attractive by reducing the transaction costs of home purchase.
- *Strategy 2.* Focuses on the fact that households being formed today differ from households that were being formed three or four decades ago. Nontraditional households need nontraditional forms of homeownership. Over the past four decades, the number of nontraditional households (that is, that do not contain a husband-wife couple with children present) has proliferated. It is among these nontraditional households that homeownership rates are the lowest. In general, nontraditional

households are smaller in size, less affluent in terms of both income and wealth, and have different housing needs from traditional households. In many cases, the traditional form of homeownership, the single detached dwelling, is unsuitable to nontraditional households. For them, such dwellings may well appear too expensive, too large, or too remote, or the financing conditions may be too daunting. To improve access to homeownership, we might do well to focus on how to make homeownership more attractive to this group. This includes the following kinds of measures

- Increase outreach to underserved groups, and reduce discrimination in the brokerage market, the mortgage market, and the mortgage insurance market.
- Assist homeowners in distress. A key difference between owning and renting is liquidity. The renter can walk away at the end of a lease. A homeowner in contrast has to sell a dwelling that he/she no longer wishes to occupy. This raises the risk of illiquidity: that is, that the seller may have to wait a long time before a willing buyer appears with a fair price. The homeowner also faces substantial transaction costs in selling (e.g., brokerage, legal, inspection), taxes (e.g., transfer, stamp), not to mention price risk. Consumers don't want to get into a situation (e.g. unemployment, injury, death in the family, divorce) where they must unexpectedly sell off the dwelling. Increasingly, the kinds of households being formed today are subject to such risks. Some of these risks are already being insured in the mortgage market: e.g. life insurance that covers the mortgage balance.
- *Strategy 3.* Focus on the idea that homeownership receives biased treatment, in some ways, vis-à-vis other forms of investment, or vis-à-vis renting. This includes the following kinds of measures.
 - Put mortgage instruments on a par with other financial instruments that involve the same level of risk.
 - Remove any potential bias in treatment of owners and renters in social and tax policy. It can be argued that public policy may, in some respect, act to discriminate against homeownership. On the social policy side, low-income homeowners may receive smaller welfare benefits than do low-income renters. On the tax side, homeowners may receive smaller tax advantages than do tenants and landlords. To extent that this happens, making policy unbiased promotes access to homeownership.
 - Alter the taxation of capital gains. In Canada, homeowners are already treated favourably in the sense that capital gains on the principal residence of a taxpayer is exempt from income taxation.
 - Alter the depreciation allowance for homeowners to enable them to shelter part of the cost of their housing against other sources of income. Typically, landlords may claim depreciation allowance in calculating net revenue for tax purposes; however, homeowners may not.
 - Reformulate property taxes. In Canada, homeowners pay substantial property taxes. In relative terms, renters pay even more, but this is typically "hidden" to tenants as part of their rent payment. In other jurisdictions, where governments are less reliant on property taxes for revenue, there is more incentive to form separate households and to consume more housing.
 - Mortgage interest deductibility is another possible incentive for a household to choose homeownership. However, it should be noted that such a measure is a costly tax expenditure.
- *Strategy 4.* Focus on the role of promoting price stability in the housing market. Households are attracted to homeownership in part by the potential for capital gains. However, many households are also risk-averse; they don't want to see the bursting of price bubbles. In this sense, dampening price speculation in the housing market, by smoothing out price swings, may actually work to increase the demand for homeownership by making it more attractive to households who fear a sudden downturn in house prices.
- *Strategy 5.* Focus on improving consumer knowledge about household budgeting, the advantages of homeownership, and the financing options available. In this strategy, we would promote home-buyer counseling.

- *Strategy 6.* Focus on subsidies to the home building and housing finance sectors to spur construction of affordable new owner-occupied housing, or renovation of the existing stock.
- *Strategy 7.* Focus on the conversion of public-sector rental housing into homeownership.

These seven strategies help us to undertake a methodical review of measures in place or being considered in the six nations under study. In so doing, measures that have an exact equivalent in Canada have been ignored. In all, 84 measures were identified that did not seem to have an exact equivalent in this country. These 84 measures are outlined in the Appendix below.

The Measures Selected

The purpose of this project is to assess selected measures used abroad that support access to homeownership and that might have potential to improve access to homeownership in Canada. From among the 84 measures identified, the Advisory Committee selected the 16 measures to be examined in this report. For each selected measure, the report examines the stated goals and identifies target household groups (if any), and measures program impacts. The project assesses the applicability and adaptability of those selected to Canada by examining whether or not Canada has had experience with a similar kind of measure either in the past or present. Briefly, the 16 selected measures are as follows.

Temporary mortgage payment protection scheme (Australia)

Some states in Australia offer a limited form of mortgage protection insurance. State-based mortgage assistance is provided in the form of an interest-free loan for low-income purchasers for a period of 12-24 months. Mortgage assistance is not a housing allowance in the conventionally used sense. It is an interest-free loan or a grant and is generally approved only in those cases where it is thought that current difficulties are short term (6-12 months).

Mortgage Managers

Canada has long had a group of professionals (mortgage brokers) who broker between home purchasers and individuals/firms with money to lend. In recent years, Australia has had a similar but unique experience with a large and growing network of Mortgage Managers who retail mortgages to households. Mortgage Managers arrange the funds for a loan and manage the loan: from credit assessment to the monitoring of loan repayments, insurance renewals, interest-rate adjustments and loan variations. They arrange loans using funds from sources such as unit trusts, superannuation funds, securitized funds, and banks. The owner of the mortgage is not the Mortgage Manager, but the source who works through a trustee. If a Mortgage Manager ceases trading, the trustee appoints another Mortgage Manager and the mortgage carries on as before. Mortgage Managers bring competition to the home loan market. Mortgage Managers receive revenue from two main sources - application fees and fees received for ongoing management of the loan portfolio. The Mortgage Manager is responsible for the mortgage from the time it is provided by the funding institution until the borrower pays the final instalment of the loan.

Reducing realtor and legal transaction costs

In the UK, legal costs and realtor charges are relatively low. Overall transaction costs, including real estate agents' fees are only 4.5% (Balchin, 1995, p. 233) which is roughly half the rate in Canada and one-third the rate elsewhere in Europe. An associated policy is using variations in stamp duty to

influence the housing market. For example in the slump of the early 1990s the stamp duty was eliminated for houses worth less than £60,000, and with the revival of house prices and incipient boom in London, the stamp duty was substantially increased for higher-priced houses (in the Labour Budget of June, 1997).

Bank of Scotland's shared-equity ownership scheme

In the U.K., there has also been much discussion of shared ownership schemes and the actual introduction in 1997 of a shared equity mortgage by the Bank of Scotland and Warburgs. The latter gives cheaper mortgage finance in return for a stake, up to 50% in the appreciation in the house bought with the mortgage. However, this is only realized when the mortgagor sells the house. The associated house price options are then sold on a secondary market. This appears to have been a commercial success, at least initially.

Taxation of sublet income

In the U.K., lenders have been reluctant to lend to owners who sublet, but attitudes are gradually softening: partly a result of removal of rent controls on new lettings after 1988. In the U.K. however, no income tax is applied to a household's income from 1 or 2 "lodgers" when the home is otherwise owner-occupied, if rental income is below specified limit. Otherwise there are no breaks for landlords (e.g., no depreciation allowance) though interest can be offset, of course. Capital gains tax applies while owner-occupiers are exempt.

Home savings account (EL)

In France, EL is a home saving account that purchases an option to a mortgage. EL takes two forms: CEL and PEL. CEL is a flexible saving account; the amount to be saved is not fixed, and withdrawals are allowed. The consumer is entitled to a low-interest mortgage loan after 18 months and a bonus of up to FF 7,500 depending on the amount saved. PEL is a fixed saving plan. The consumer contracts to save fixed amounts for at least four years, and then has the right to borrow at a low rate, with a bonus of up to FF 10,000. Interest on the earned savings is tax-free. Households that participate in these savings plans show that they are capable of serious savings and suggest to lenders that they can dependably make a regular schedule of mortgage payments.

Interest-free Loan (PTZ)

In France, two types of assisted mortgages have been available since 1977: PAP (a means-tested subsidized loan) and PC (a preferred loan). PTZ, a zero interest rate loan, has replaced the PAP since October 1995.

Bausparkassen

German building societies (Bausparkassen) operate a dedicated saving programs that funds substantial (second) mortgage financing. The household saves a specific amount per month at a low interest (typically 2.5%, independent of market interest rates, plus a bonus) until a predetermined savings total is reached. At that point, the household is eligible for (subject to availability) a predetermined loan at low interest loan (typically 5%, independent of current market interest rates). Savings into these contracts are tax-deductible or generate a tax credit (for low-to-medium incomes). The scheme is popular. It forces people to save for a generous downpayment; it is a means of enforcing self-control. As a byproduct, it makes defaults near-zero.

Universal Accounts

The proposed "Universal Account" wherein customers pool their assets for the purposes of obtaining loans is seen as a boon to homeownership because it permits homeowners to readily access the capital tied up in their home. In the same sense, it makes other household assets more liquid too. In this way, lenders can eliminate the downpayment requirement for some first-time homebuyers and allow existing homeowners to borrow more than their home is worth. A related product is the 125% Loan-To-Value mortgage which recognizes the collateral value a the range of household's assets which could be called upon in times of credit distress.

Mortgage Revenue Bonds

The U.S. has a program used to facilitate access to homeownership through the use of tax-exempt Mortgage Revenue Bonds. These are state programs where mortgage loans are available from the state, but with lower interest rates than the private market. They are targeted by states toward low-income households. The Mortgage Revenue Bond program incurs a substantial tax expenditure.

Freddie Mac's Affordable Gold programs

Freddie Mac's Affordable Gold 5 (borrower puts 5% cash down and has high Mortgage Service Ratio) and Affordable Gold 3/2 (borrower puts 3% own cash down, and 2% from other sources). Early on in this measure's evolution, the main concern was whether this would simply result in increased rates of foreclosure. However, the advent of new analytical tools (e.g., Freddie Mac's Gold Measure and Loan Prospector underwriting system) have helped to determine how underwriting guidelines can be modified without putting targeted-lending families in undue danger of foreclosure.

Automated Underwriting and Credit Scoring

In U.S., Freddie Mac's Loan Prospector (LP) became available in 1995. LP is an underwriting service that integrates statistical risk assessment techniques with modern technology for the collection of information about the loan, the borrower, and the property. Some lenders report that using LP saves them US\$ 300 to US\$ 650 per loan application. By early 1996, it is reported that as much as 20% of Freddie Mac's loan volume was coming through LP. At the same time, Freddie Mac has been more supportive of the use of credit scoring (which is integral to LP) than have either Fannie Mae or the U.S. Federal Housing Administration (FHA).

Mutual Help Homeownership Opportunity for Aborigines

The Mutual Help Homeownership Opportunity (MHHO) program operated by HUD since 1962 is a lease-purchase program of homeownership designed specifically to serve Indians or Indian land. In recent years, MHHO has been replaced by the Section 184 and Section 248 programs that insure mortgages that Indian families obtain from private lenders to purchase houses on tribal land.

NAR's "One America" Training Program

The U.S. National Association of Realtors (NAR) promotes homeownership through its "One America" training program which is designed to teach real estate professionals how to work with buyers of different minority groups, cultures, and ethnic backgrounds, and to encourage people of diverse backgrounds to become real estate practitioners.

HELP and Homebuyer Counseling

The U.S. *Housing and Urban Development Act* of 1968 includes Section 106 which promotes housing counseling. Largely because of widespread defaults in HUD's low-income housing program, efforts early on were dominated by post-purchase counseling. A new phase in homebuyer counseling came about following passage of the *Community Reinvestment Act* of 1977 whose anti-discrimination provisions require that regulated lenders do "regular business" in their service areas. These lenders came to rely on homebuyer counseling for information about the demand for residential mortgage loans within their service area. In the last half of the 1990s, there has been renewed interest in the role that homebuyer counseling can play in expanding access to home ownership. Federal agencies such as HUD, Freddie Mac, and Fannie Mae have encouraged the delivery and standardization of homebuyer counseling for first-time homebuyers. One example is the HUD-FHA Homebuyer Education Learning Program (HELP) which offers a reduced mortgage insurance premium to first-time buyers who have undertaken homeownership counseling.

Risk-based Underwriting

The FHA has proposed a pilot program that bases the mortgage rate on the credit quality of the borrower. Risk-based pricing uses the mortgage score, which combines such elements as the FICO (Fair Isaac and Company) score, LTV ratio, local economic prognosis, and other factors which allow lenders and mortgage insurers to price loans more efficiently and effectively. Risk-based pricing is facilitated by the automated underwriting systems developed by private mortgage insurers, Fannie Mae, and Freddie Mac. Some good-quality risks presently go to the FHA and provide a cushion in its insurance fund for poorer risks, but Fannie Mae and Freddie Mac's automated underwriting is increasingly able to identify and lure away these relatively good borrowers via risk-based rates. Such a measure may not promote homeownership in the short-run because high-risk households generally have low incomes but it may provide sustainable homeownership by lowering costs for low-risk households: e.g., single mothers with a good history of regular rent payments.

Methodology

The conventional indicator of the prevalence of homeownership is the "home-ownership rate": the ratio of owner-occupied households to total households in the country. In Canada, for example, approximately 64% of all households are owner-occupiers. Although widely used as one of the measures of national well-being, this rate has some well-known problems. For one, the calculation of the rate itself is problematic. It is calculated only for the regular (i.e., principal) place of residence of each person in Canada; it ignores vacation and second homes and unoccupied dwellings. Also ignored are persons living in institutions and other collective accommodation (e.g., barracks, prisons, hospitals, dormitories, and staff bunkhouses); only persons in so-called "private" dwellings are included. In making international comparisons, we must also take account of the selling-off of public rental housing over the last decade at deep one-time subsidies in some countries (not Canada). In such countries, a high homeownership rate has resulted that is unlikely to be sustained in the future once the subsidy program ends.

Perhaps less well understood is the effect of shared accommodation on the homeownership rate. Underpinning our methodology is what scholars call a "housing career model". In the standard rendition of this model, young couples are thought to start with a small rented dwelling, save toward homeownership, eventually move to a modest owned home, and then later on move or renovate to adjust housing space first to the flow and subsequently the ebb in family size. In this rendition, renting is temporary; a place to wait until enough money has been saved to make homeownership affordable. The imperative to become homeowners here is partly the need for yard space for children, partly a need for the security of tenure possible with homeownership, and partly the need for an investment to protect against job loss or other economic misfortune. We might also envisage different renditions of a housing career model: for example, for couples who divorce, and for poor households, such as lone parents, and elderly renters who do not want or do not expect to be able to afford homeownership. What we really want to know is whether a particular rendition of the housing career model has changed, or become less prevalent. Has homeownership moved out of reach for more consumers? Have economic conditions left poor consumers even worse off than before? As we explore answers to such questions, we discover that complexity arises because of the inventiveness and ingenuity of individuals in coping with the exigencies of daily life: in how they choose living arrangements, tenure, and dwelling. Consider the following three examples.

- A A young single woman currently lives with her parents in the family-owned home. She wants to move into a rental apartment closer to her place of work. She hesitates because separate accommodation is expensive. However, she has two friends who might be willing to share rented accommodation with her.
- B An elderly woman has recently been widowed. While she owns the dwelling and the mortgage has long since been paid off, she is reluctant to stay on in the house because it is too difficult physically for her to maintain it. Her adult son has asked her to come and live with him in his house.
- C A young couple is saving to buy a first home. However, they find it difficult to save enough money for a downpayment because there is too little left over each month after rent, food, and the other necessities. The husband's parents, who own their own home, have suggested that the couple move in with them temporarily so that young couple can eliminate the rent expense and accumulate savings faster.

All three illustrate living arrangement as a coping strategy. In A, the young woman currently lives in an owner-occupied dwelling but might move to rental given an affordable living arrangement. In B, the elderly woman is considering lodging with her son. In C, the young couple might use lodging as a strategy for quickening the transition to an owned home of their own. Such strategies are problematic if we imagine that the objective of housing policy is to increase the homeownership rate. In A, the

move of the young women to a rented dwelling potentially reduces the homeownership rate because there is now one more occupied rental dwelling. On the other hand, should she find rented accommodation too expensive, is it reasonable to think of remaining in the parental home as a "success" for homeownership. In B, the move of the elderly woman into her son's home potentially reduces the number of owner-occupied dwellings by one. In addition, the elderly woman in B and the couple in C would, after the move, both then be in owner-occupied accommodation since the dwelling is owned by a household member (her son in B, their parents in C). Such complexities make it imperative to examine other alternatives to measure access to homeownership.

The Approach

It is widely accepted that an advanced society ought to possess an ample stock of soundly-built housing that is well-serviced (e.g., with potable water, sewage disposal, heat, and electricity) and thereby provides a comfortable, warm, dry, and safe environment for residents. Further, housing policy is widely thought to be concerned with fairness re disadvantaged citizens: those for whom the market does not make adequate provision. The history of Canadian housing policy is filled with laudable efforts to those ends. By promoting policies that improve access to homeownership, we encourage some existing households to switch from renting to homeownership. Conventional economic wisdom argues that, under competitive markets, households (as consumers) will adjust their consumption budget (including expenditure on housing) and as investors adjust their portfolio of assets (including homeownership) so as to maximize utility. However, in the real world, governments and their agencies do actively intervene to affect the price and amount of housing produced, as well as its availability to households of different types and income levels. From the perspective of efficiency, there are two main rationales for this.

- *Incomplete Markets and Price Distortion.* An economic rationale is that governments intervene because market prices for housing are distorted and hence that consumers make poor choices. Earlier in this century, for example, the secondary markets for mortgages (including mortgage insurance) were incompletely developed in Canada, so that an insufficient pool of investment funds made its way into the mortgage pool. By promoting various devices (from loan insurance accompanied by progressively-relaxed qualification criteria to mortgage-backed securities), it is thought that public policy has been able to lower the price of decent housing, increase availability for broad classes of households, and encourage better choices by consumers. A related argument is that consumers simply do not have a choice; because of some non-price rationing mechanism, behaviour is not based on prices and incomes. Public housing is rationed in this way. In some countries (not Canada), mortgage credit may be similarly rationed. As a consequence of the Great Depression of the 1930s, much of the western world had come to believe that extensive regulation and separation of financial institutions was required. Only in recent decades have governments been undoing the regulations and freeing up financial institutions to respond more efficiently to market demands. For its part, Canada was one of the earliest to begin deregulation, beginning with the reform of the Bank Act in 1964.
- *Externalities and Homeownership.* Homeownership is different from other kinds of asset holding. Conventional wisdom argues that homeowners have more at stake in maintaining property values and encouraging healthy communities. Proponents have traditionally argued that homeownership promotes civic participation and good government and thus creates an externality benefit for the community as a whole. More recently, attention has been placed on the role of homeownership in helping to contain public expense in housing the elderly. Fee simple homeownership allows households to adjust expenditures on housing maintenance in the event of death, disability, or retirement of a member. Renters have less flexibility to adjust their housing consumption (short of moving) and thus may require more public financial assistance. In this sense, homeownership is a kind of income insurance; substitutes include public programs such as employment insurance and old age security.

This introduction to the role and purpose of housing policy contains important lessons. First, when we think about new initiatives to support access to homeownership, we have to ask how and why they result in better market prices or a fairer allocation of housing to different classes of households; not just lower prices. That is, if the new initiative merely creates a price distortion (as opposed to a more-efficient price), then the initiative is bad in the sense that it promotes inefficient housing consumption, unless sufficiently offset by improvements in fairness. Second, it is difficult to determine an efficient price for housing because housing production involves much non-market regulation: from land subdivision, development control, and zoning, to building, fire, environmental and warranty regulations, to financial regulation, to property transfers, to servicing standards and lot levies, to property maintenance bylaws, to landlord-tenant legislation. While such regulation may on net be beneficial, we simply do not know if the amount of regulation is itself efficient. Third, it is not enough simply to make the price of investment in housing better reflect costs if the prices of other investments remain substantially distorted. While there has been an extensive deepening in many markets for capital investment, some important sectors of investment activity in Canada—notably education, health care, and public infrastructure—are largely outside the control of individual households. Hence, the question of whether investment in Canada is balanced overall is pertinent.

Work Plan

The central question is whether there are useful ideas that have not been tried before in Canada and are potentially worthwhile considering. To do this, this report assesses the economic and demographic climates of each of these nations, and draw comparisons to the present-day context in Canada. Just how similar are the situations in each of these countries to Canada? Are they comparable enough to Canada to draw conclusions about the potential for success of such initiatives in Canada. And, what objectives were the government or industry trying to achieve in implementing their initiatives? Was the focus on improving access to homeownership, short-term economic stimulation, or something else?

How does this project analyze opportunities for improving access to homeownership? The paradigm introduced above offers valuable suggestions. First, it suggests that we need to look at all three sets of housing choices: that is, living arrangement, housing consumption and condition, and tenure. In all three, we need to think about (1) the effects of prices, income, and as well as nonprice rationing mechanisms on the housing choice sets and choices of consumers, (2) the effects that policies to improve access to homeownership have on these prices and availability (3) whether these prices become more efficient and access and allocation more fair, as a consequence, (4) whether there are distortions elsewhere in the economy that make these policies more effective or less effective in a particular (that is, Canadian or foreign) context, and (5) whether there are significant differences in demographic structure, municipal tax rate systems, bequest traditions, education system, savings incentives, or dwelling structural forms (e.g. more apartments relative to single houses).

The report also considers housing careers. Do the policies of some nations increase the rate at which households ever become homeowners, or the number of years that a typical household can expect to spend in homeownership? Does a homeownership program improve access for young people, for example, or does it help primarily underserved middle-aged households. The latter could include low-income households and single-parent households. Is, for example, the German depreciation deduction for the first house only—which encourages households to delay homeownership until they are able to afford their “final” house—a system appropriate for achieving accessibility at some time in a life time, rather than encouraging homeownership at an early age? At the same time, the report must look at investment in homeownership as a portfolio choice problem. At its most basic, we need to know whether homeownership is more (less) prevalent in some nations because alternative forms of investment are less (more) attractive.

The report consists of two parts. For each of the six nations reviewed, Part I describes the environment that has shaped initiatives to improve access to homeownership. This includes a description of the

short and long-term socio-economic, demographic, and other factors shaping initiatives in the six nations and an assessment of whether such factors are relevant to the Canadian environment. The second part assesses each selected measure to improve access to homeownership in general or to specific "underserved" target populations. This includes measures adopted by governments, the private sector (in particular financial institutions), the nonprofit sector and/or public-private partnerships. The report discusses whether there are plans to change current measures or implement new initiatives in light of emerging economic, demographic and social developments. Finally the report examines whether or not such a measure has ever been applied in the Canadian environment and, if not, whether it conceivably could be.

Rationale for Measures Selected

The objective of this report is to assess measures that might improve access to homeownership if adopted in Canada. What "barriers" to homeownership are addressed by these measures? One way to think about this is in terms of the three hurdles that prospective homeowners have to overcome to obtain mortgage financing for their new purchase. First, the consumer must have a sufficient down-payment to meet the loan-to-value (LTV) requirement of the lender. The lack of sufficient wealth is one barrier to homeownership. Second, the consumer needs a monthly income sufficiently high relative to monthly mortgage servicing payment to make it affordable. The lack of sufficient income to meet this mortgage service ratio (MSR) is a second barrier to homeownership. Third, the consumer must have a good credit record. A lack of creditworthiness is the third barrier to homeownership. Of course, housing will always be costly to provide, and a good income, sufficient savings, and a good credit record will be ever-present hurdles. What we are asking here is whether there are ways in which these hurdles that can be trimmed to improve access to homeownership.

Efficiency

One way to improve access to homeownership is to improve the efficiency with which housing gets delivered to homeowners. With this strategy, reductions in inefficiency may translate into lower prices for homes, lower transaction costs, and/or lower monthly payments. Four of the measures can be thought to improve efficiency by better identifying (or differentially pricing) good customers. One of these is the U.S. "Affordable Gold" lending program. The AG program uses databases created by automated underwriting to uncover good lending risks from among households that would otherwise be marginal in terms of LTV. In the past, such households would have been ignored under conventional lending (in this sense, past lending practice has been inefficient). The second item is the move to risk-based pricing in the U.S. In this measure, the lending industry has begun to sell mortgages at rates that vary with the risk class of the home-owner. In this way, low-risk home-buyers obtain better mortgage rates than they would otherwise. The third measure is the FHA's HELP program which provides insurance discounts to first-home buyers who have taken homeownership counseling is an attempt to single out and price appropriately consumers who signal that they are serious about becoming homeowners. The fourth measure is the proposed Universal Account. Currently households with assets that they, for tax or other reasons, can not liquidate, may be unable to muster sufficient funds for a down-payment. The Universal Account would result in a more-efficient mortgage market because it would allow such consumers in effect to count these assets in-kind.

Another three measures can be thought to improve efficiency by lowering or altering the cost of mortgage financing. The Mortgage Manager measure in Australia is one instance. In this case, the competition between banks and other securitizers to lend to households puts downward pressure on mortgage interest rates and mortgage origination costs. The second is the Bank of Scotland's shared-equity mortgage. This represent an improvement in efficiency in that it gives homeowners the ability to trade off a lower mortgage interest rate against a smaller share of downstream appreciation in house price. Finally, the low realtor fees charged in the U.K. offer another efficiency-based pathway to better access to homeownership. Note that these pathways to improved efficiency come about mainly

through intensive competition within the industry. The role of governments here is understandably modest.

Information

The better the information available to lenders, the better able they are to pick good mortgage prospects. With this strategy, better information improves access to homeownership for worthy households. Several of the measures are based on the idea that the better the information available to lenders, the better able they are to pick good mortgage prospects. With this strategy, better information improves access to homeownership for worthy households (that is, good credit risks). This is the case, for example, in the French EL program wherein consumers commit to a savings contract in return for the option to purchase a low-interest mortgage at the end. Over the duration of the savings contract, the bank has ample opportunity to observe how well the household holds to its financial plan. The potential for the same mechanism is at work in the German Bausparkassen. The FHA's HELP program with its insurance premium reductions for persons who have undergone home buyer counseling is another example of how to use information to pick out good prospects. Finally, a different variant on this approach is the Universal Account wherein the bank would keep tabs on the full range of customer assets and liabilities. The advent of automated underwriting has been enabled in large part by the availability of large, online databases containing standardized credit information about individuals. Such databases give lenders much better information, faster, and a lower retrieval cost, than had been the case previously. At the same time, automated underwriting itself produces large volumes of standardized information about residential properties and their values, and about the downstream repayment histories of successful mortgage applicants. Put together, these two sets of databases are a rich source of information in attempting to predict problem loans in the future. Such information also helps lenders to pick out good combinations of LTV, MSR, and creditworthiness from among marginal candidates. This is the focus of both Freddie Mac's Affordable Gold programs and recent changes in U.S. mortgage-insurance criteria.

Demonstration, learning, and confidence building

In this strategy, governments and industry seek to help potential home buyers see that they can budget, plan, and make the necessary sacrifices to obtain homeownership. Along the way, consumers are thought to learn of the benefits of homeownership, and to have greater confidence that they want and can achieve homeownership. In this strategy, governments and industry seek to help potential home buyers see that they can budget, plan, and make the necessary sacrifices to obtain homeownership. Along the way, consumers learn of the benefits of homeownership and gain confidence that they want and can achieve homeownership. Once again, the French EL program and German Bausparkassen schemes, because they give consumers a savings experience not unlike that associated with paying down a mortgage, can be thought to implement a strategy of learning and self-demonstration. Other measures implement a strategy that is more based on confidence building. In the Universal Account, consumers are given the confidence that they will be able to borrow easily against their home equity later on, whether it be to finance a new business or purchase, without having to liquidate other assets. In a similar vein, the temporary mortgage payment protection schemes that protect against job loss, illness, or other major life cycle changes provide mortgagors with the confidence that they will be able to continue paying off their mortgage. Finally, there are three measures in our list wherein the U.S. government and/or other housing stakeholders play a central role in helping a broad range of consumers be confident that they too can access homeownership. These are the MHHO program (section 248) for Aborigines, NAR's One America training program, and the FHA HELP program that rewards counseling for first-home buyers. In all three measures, whether by demonstration, learning, or confidence building, minority and inexperienced homebuyers are provided with tools and programs to make them more confident about entering into a mortgage and homeownership.

Partnership, Insurance, and sharing

Homeownership is seen a partnership in several ways: one is among the household, the lender, the insurer, another is among the residents of a neighbourhood or community. In this strategy, government and industry look for ways to partner, to spread the risks of home-ownership, and to share in its benefits. In three of the measures on our list, homeownership is seen to be a partnership to spread the risks of home-ownership and to share in its benefits. One direct example here is the German Bausparkassen system which operates like a Credit Union. German households enter into a savings contract, but at the end of that contract are not immediately guaranteed a mortgage. Instead, they have to wait until the Bausparkasse has enough deposits on hand to finance the next building loan. In effect, a Bausparkasse is like a building co-operative: a partnership among a group of consumers to help fund the building of each other's homes. The U.S. MHHO (section 248) aboriginal housing program is also a form of partnership. On native lands, land ownership is often in the name of the Indian Band, so it is difficult for a bank to foreclose on a delinquent debtor. The MHHO program is a partnership that involves the Band Council. In return for suitable mortgage funding to Band members, the Band Council agrees to cooperate in ensuring that mortgages do not become delinquent and to expedite the recovery of loan losses when and as these occur. Finally, the Bank of Scotland's shared equity mortgage program is another kind of partnership. In this case, it is a partnership between the mortgagor (who benefits from a low interest rate) and the pool of investors who buy an option to share in capital gains should property prices rise in the future.

Anti-discrimination

Improving access to homeownership also means taking into account the disparities among communities, and looking for ways in which to ensure full and equitable enjoyment of the benefits of homeownership. The U.S. "One America" training program, operated by HUD and NAR, is the one example in our list of an anti-discrimination program designed to improve access to homeownership by making minority groups feel that U.S. society is inclusive and tolerant. It helps real estate brokers and agents learn to work with the increasingly diverse population of potential homebuyers. A second purpose is to increase the diversity of individuals attracted to the real estate profession. Households seeking FHA support in purchasing a home are urged to select a real estate agent who has One America certification.

Regulation

A strategy often employed by governments is to mandate behaviour in the market that is to improve access to homeownership. In only one of the 16 measures selected here, do governments act to regulate the way in which consumers access homeownership with a view to mandating reductions in hurdles. The example here is France's EL program. Here, the French government allows CEL and PEL deposit accounts tax-free status, and tops up the interest earned in them. However, in return, each participating bank must provide a low-interest mortgage loan on demand to each eligible participant/applicant.

Subsidy and tax expenditure

Finally, governments may choose to subsidize implicitly or explicitly the accession to homeownership. Sometimes this is done because "young members of our community need to have a stake in its future"; other times, it is done to give poorer households a better quality of life than would be possible in rented accommodation. Five of the 16 measures in our list involve a significant subsidy or tax expenditure. Two of them, France's EL program and Germany's Bausparkassen system are broadly similar. Each treats the interest revenues of savings depositors as tax-exempt: something that benefits both the saver (less tax) and the financial institution (low-cost source of funds). Each of these savings

programs provides a further top-up tax-free subsidy to the saver upon completion of the savings plan. Curiously, in the case of Germany, the total subsidy is enough to make almost any consumer happy to defer homeownership until the savings plan is completed. U.S. Mortgage Revenue Bonds are a third example of a major tax expenditure. Here, it is the bond holder who is tax-exempt. However, the effect is not unlike France's EL program; in effect, tax-exemption provides a low-cost source of funds to the mortgage issuer. A fourth example of a tax expenditure, in the U.S. context, is the Universal Account. Because mortgage interest is deductible in the U.S., the Universal Account helps consumers to repackage their loans so as to maximize the tax write-off. Finally, the British taxation system exempts the rental income earned by owner-occupiers from one or two coresident tenants. This tax expenditure makes homeownership look more attractive to households that might, without rental income, find it too costly to afford. Of course, no government taxes the imputed rental income of homeowners, and none taxes the imputed rent attributable to others living rent-free in the household (e.g., grandparents, adult children, other relatives). In a sense, what the British legislation does is to treat the extended household (family plus tenants) much as other countries currently treat nuclear family households.

Setting the Stage: the Canadian Context

As of the latest Census in 1996 (see Table 1), Canada was home to 28.5 million people. Census data confirm the bulge in population aged 30-49 at that time: a consequence both of the postwar baby boom and much immigration in recent decades. A principal argument in this report is that understanding living arrangements is important in appreciating access to homeownership. Therefore, insights into the living arrangements of this population are gained by dividing the adult population into two groups.

- *Couples.* In the total population, about 13.6 million people were married and living with their spouse in 1996: thus, 6.8 million couples in total. Almost all of these couples (6.1 million in total) formed nuclear families living alone: put differently, these couples live in a household wherein there are no others present except their children (who, by definition, are never-married but can be of any age including adult). The remaining 0.7 million couples lived in a shared household: that is, a household where others such as a grandparent or lodger were also present.
- *Other Adults.* In addition, excluding persons under 20 years of age, there were 6.9 million other adults (includes nonfamily persons, lone parents, and census "children" aged 20 or older). Of these, 2.6 million lived in a one-person household: that is, did not share a dwelling with anyone else. The remaining 4.4 million persons includes both persons in shared accommodation and about 0.9 lone parents living only with their children.

The sum of these two groups (13.7 million) is the number of potential households: that is, the number of households that would form if every couple and other adult lived in their own dwelling. Because of shared living arrangements (for example, multi-generation households), the actual number of households in 1996 was only 10.8 million. The ratio of actual to potential households, 0.79 in 1996, is an indicator of the extent of living alone among both nuclear family units and nonfamily persons.

According to the 1996 Census, the incidence of homeownership among young couples is substantial. For example, 46% of couples aged 25-29 lived alone (no one else present except their children) in an owner-occupied dwelling: rising to 63% of 30-34 year olds, and then to 72% of 35-39 year olds. Among adults not in couples, the incidences were lower: 21% of these 25-29 year olds lived alone in homeownership, 30%, of 30-34 year olds, and 34% of 35-39 year olds.

Table 1 Total persons (thousands) in private dwellings by marital status, living arrangement and tenure, showing age of persons, Canada, 1996.

	Age of person									All ages
	Under 20	20-24	25-29	30-34	35-39	40-49	50-64	65-74	75 or older	
All persons	7,914	1,856	1,996	2,442	2,529	4,403	4,085	2,010	1,252	28,488
Married and living with spouse	42	400	1,066	1,702	1,891	3,392	3,165	1,350	566	13,576
In nuclear family living alone										
Owner-occupied	4	92	489	1,080	1,359	2,594	2,450	1,032	397	9,497
Rented	26	234	439	457	371	488	358	178	115	2,666
In other living arrangement										
Owner-occupied	6	40	88	116	121	249	298	119	45	1,083
Rented	6	33	51	49	40	61	59	21	10	331
Other persons	7,839	1,442	920	732	630	997	905	649	671	14,786
Person living alone										
Owner-occupied	1	9	33	60	72	154	235	232	223	1,020
Rented	14	94	157	165	147	240	266	207	242	1,533
In nuclear family living alone										
Owner-occupied	4,894	739	269	137	111	186	111	43	34	6,524
Rented	1,932	184	117	117	114	151	58	16	11	2,700
In other living arrangement										
Owner-occupied	644	173	136	124	102	159	155	111	129	1,734
Rented	353	242	207	130	85	107	80	39	32	1,275

Source 1996 Census Public Use Microdata (Individual) File. Calculations by J. R. Miron, November 1999.

As shown in Table 2, the number of husband-wife families peaked in the 35-44 age group in 1996. This reflects the bulge in the age pyramid created by the aging baby boom generation; it also reflects the impact of mortality and marital dissolution on the number of couples aged 45 or older. The percentage of these families who live in owner-occupied housing (generally wherein they themselves are the owner) rises sharply with age among young couples and stays at a peak of about 85% to 87% for the 45-74 age group. Among home-owners the incidence of shared accommodation peaks near the 55-64 age group where couples are the greatest risk of having family obligations in respect of elderly grandparents or newly-divorced or separated sons and daughters. In sharp contrast, among renters, the incidence of shared accommodation is greatest among the younger age groups wherein sharing is more typically a way of sharing the expense of accommodation.

The number of lone-parent families (Table 3) also peaked in the 35-44 age group in 1996, and the smaller numbers above that age group reflect home-leaving among adult children. The percentage of these families who live in owner-occupied housing (wherein they themselves may not be the owners) rises less quickly with age among young adults. Among homeowners, the incidence of shared accommodation again peaks near the 55-64 age group where the lone parent is the greatest risk of having family obligations in respect of elderly grandparents or newly-divorced or separated sons and daughters. In contrast to husband-wife families though, the incidence of shared accommodation among lone-parent renters increases (Table 4) steadily with age.

Table 2 Husband-wife families (thousands) in private dwellings by living arrangement and tenure showing age of husband, Canada, 1996

	Age of husband							All Ages
	Under 25	25-34	35-44	45-54	55-64	65-74	75+	
All husband-wife families	--	1,244	1,784	1,473	994	743	336	6,721
Living alone	--	1,155	1,661	1,317	855	658	303	6,095
Sharing accommodation	--	89	123	156	138	85	33	626
In owner-occupied dwelling	--	766	1,419	1,258	865	636	267	5,256
Living alone	--	714	1,321	1,131	747	566	241	4,757
Sharing accommodation	--	52	98	127	118	70	25	500
In rented dwellings	--	478	364	215	128	107	69	1,465
Living alone	--	441	339	186	108	92	61	1,338
Sharing accommodation	--	38	25	29	20	15	8	127

Source 1996 Census Public Use Microdata Family File and Household File. Calculations by J. R. Miron, November 1999.

Note -- Number too small for reliable estimation.

Table 3 Lone-parent families (thousands) in private dwellings by living arrangement and tenure showing age of husband, Canada, 1996

	Age of lone parent							All Ages
	Under 25	25-34	35-44	45-54	55-64	65-74	75+	
All lone-parent families	--	232	356	237	98	--	--	1,116
Living alone	--	202	299	200	73	--	--	916
Sharing accommodation	--	30	57	37	25	--	--	201
In owner-occupied dwelling	--	52	149	136	64	--	--	502
Living alone	--	35	118	114	48	--	--	386
Sharing accommodation	--	17	31	22	16	--	--	116
In rented dwellings	--	180	207	101	34	--	--	615
Living alone	--	166	180	86	25	--	--	530
Sharing accommodation	--	14	26	15	9	--	--	85

Source 1996 Census Public Use Microdata Family File and Household File. Calculations by J. R. Miron, November 1999.

Note -- Number too small for reliable estimation.

Table 4 Nonfamily persons (thousands) in private dwellings by living arrangement and tenure showing age of person, Canada, 1996

	Age of nonfamily person							All Ages
	Under 25	25-34	35-44	45-54	55-64	65-74	75+	
All nonfamily persons	510	906	682	544	470	604	640	4,483
Living alone	117	422	424	370	341	449	473	2,596
Sharing accommodation	394	484	258	174	129	155	167	1,886
Owner-occupied dwellings	131	275	285	261	254	351	363	1,994
Living alone	11	94	148	157	169	241	227	1,048
Sharing accommodation	120	180	137	103	85	111	135	946
Rented dwellings	380	632	397	283	215	253	277	2,489
Living alone	106	328	276	213	172	209	246	1,549
Sharing accommodation	274	304	121	70	44	44	32	940

Source 1996 Census Public Use Microdata Family File and Household File. Calculations by J. R. Miron, November 1999.

Note -- Number too small for reliable estimation.

In the Canadian Census, a nonfamily person is someone who is not living with a spouse or a never-married "child" (regardless of the child's age). It is different from "Other persons" in the Table above

which includes both children and lone parents. In Canada in 1996, nonfamily persons make up about 16% of the population, and are mainly concentrated among 25-34 year olds, but with substantial numbers at all ages. Here, the percentage who live in owner-occupied housing (again, they may not own the dwelling themselves) is a bit higher than for lone-parent families in the younger age groups, but lower in the older age groups. Among nonfamily persons whether in rented or owner-occupied housing, the incidence of shared accommodation falls steadily with age.

Let us now return to the question that was posed at the start of the Introduction above. Why isn't the demand for housing in general, and homeownership in particular, stronger at the present time in Canada? Several explanations come to mind.

- *Heightened Uncertainty about Jobs.* Amid continuing insecurity about job prospects, young consumers are unwilling to commit to a large mortgage given uncertainties arising from industrial restructuring and globalization. This uncertainty has a locational aspect that also impinges directly on the question of homeownership, and that relates both to the existence of jobs and their location. If young workers find that their current short-term job in one location is likely to be followed by another short-term job in a different part of the country, the transaction costs and resale risks also make that homeownership less attractive.
- *Low Fertility and Delayed Childbirth.* A related demographic explanation has to do with changes in the typical family life cycle, and particularly with decisions about the timing of child births. In the last few decades, there has been an increase in the age at which Canadian women typically give birth to their first child. Since home purchase is strongly associated with the actual or anticipated start of a family, delayed births may well dampen homeownership among young couples. In fact, the story may be even more complicated than that. After all, by deferring child birth, young couples may be better able to accumulate savings as a downpayment on purchase of a first home. Put differently, delayed childbirth may actually increase the likelihood that couples ever become homeowners, but at the same time may actually shorten the span of one's lifetime spent as a homeowner.
- *Rise of the Nontraditional Household.* The mainstay of homeownership has been the traditional household (husband-wife family and children living alone). Over the last few decades, the number of traditional households has grown less quickly than other kinds of households (e.g., nonfamily persons and lone-parent families living alone, and same-sex couples). To the extent that these nontraditional households do not aspire to homeownership, feel that they cannot afford it, or are discriminated against, the incidence of homeownership will decline. Nontraditional households have different kinds of housing preferences: a fact demonstrated in the high rate of condominium occupancy among those that are homeowners. This suggests that additional nontraditional forms of ownership and housing may be needed. To the extent that current lending practices may discriminate against nontraditional households, public initiatives might also promote more-flexible lending guidelines.
- *Changing Trends in Post-secondary Education.* Increased participation in post-secondary schooling among young adults has also directly reduced the homeownership rate. In part, this is because students are unlikely to be homeowners. Increased schooling has also reduced homeownership indirectly—over the years following graduation—because of the overhang of student loan indebtedness. Further, the effects of student loans on homeownership were exacerbated by the recession of the early 1990s. This brought about increased indebtedness of many who were jobless during the recession, including recent graduates unable to finance through summer jobs as much of their education as they had expected. A further financial explanation is the interaction of the 1990s with the change in the Employment Insurance (EI) rules. These changes meant that many people who, in earlier times, would have been on EI for extended periods, instead exhausted their EI benefits and were sustained by social assistance. The latter, unlike EI, does not allow beneficiaries to hold more than a trivial amount in nonhousing assets, so that young people accumulating savings for a house would have had these savings virtually wiped out under the new system.
- *The Bite of Income Taxation.* The bite of taxation (income tax, Canada Pension Plan and Employment Insurance (EI) premiums, Goods and Services Tax and Provincial Sales Tax, and benefit clawbacks)

has reduced aggregate disposable income and hence directly reduced the ability of consumers to save towards homeownership. A related argument is that Old Age Security and EI benefits, public health insurance, and subsidized university education have reduced the need for homeownership as insurance against major loss or expenditure of household income.

- *Competition with the Stock Market.* The sparkle of capital gains in the equity market over the past few years has diverted potential investors away from real property. Why put money into homeownership when the stock market is performing so much better? After all, house prices declined sharply in Canada after the peak in 1989. In real terms, house prices in some areas of Canada have never recovered from that bust. Purchasers of houses in the late 1990s have experienced capital losses and potential purchasers, observing this, would likely regard housing as an imprudent investment until they were convinced that such losses had come to an end.

Australia

National Profile and Selected Measures

National Profile

At 18 million people and 6.4 million private occupied dwellings in 1996 (Table 5), Australia is about two-thirds the size of Canada. Nonetheless, in many respects, Australia's population, dwelling stock, and housing conditions are similar to Canada. Average household size is the same (2.6 persons per dwelling in 1996). Australia too has a bulging age cohort associated with a postwar baby boom. It is also primarily a nation of homeowners. As in Canada, the private sector is central to the rental market (71% of renter households are in the private sector, 21% are in public housing, and the remaining 8% are in employer housing and other rent-free accommodation). As does Canada, Australia has a substantial private rental sector and a small public rental housing sector. Like Canada, Australia has moved away from the production of new public housing in recent decades, and has moved toward consumer subsidies (especially for private sector renters). Like Canada, Australia has not had strict rent control in the private sector, but has legislated moderate security-of-tenure for tenants. Australia and Canada are similar in their treatment of homeownership in taxation of income: imputed rental income and real capital gains are tax-exempt, but mortgage interest is not tax-deductible. Investors, on the other hand, while they pay tax on net rental income, are able to deduct all interest costs even when these exceed net rental income. Finally, akin to CMHC, Australia also had a Housing Loans Insurance Corporation (HLIC) that insured 1.3 million mortgage loans between its inception in 1965 and its sale to GE Capital Australia in 1997.

Table 5 Households (thousands) by living arrangement by tenure showing age of head, Australia, 1996.

	Age of head					All ages
	15-24	25-34	35-44	45-64	65 or older	
All households	399	1,248	1,458	2,077	1,313	6,495
Husband-wife nuclear family living alone	129	767	998	1,411	603	3,909
Owned	36	465	766	1,202	520	2,990
Rented, rent-free, or other tenure	93	302	232	209	84	919
Lone-parent nuclear family living alone	38	130	197	197	87	649
Owned	4	28	87	126	69	314
Rented, rent-free, or other tenure	34	102	110	70	18	335
Nonfamily person living alone	101	222	204	393	580	1,500
Owned	21	78	98	230	387	813
Rented, rent-free, or other tenure	80	144	107	163	193	687
Other (shared) household	131	129	58	76	43	436
Owned	18	39	28	49	32	166
Rented, rent-free, or other tenure	113	90	30	27	11	270

Source: Australian Bureau of Statistics (ABS) special request matrix, Census of Population and Dwellings, 1996

However, housing in Australia differs from that in Canada in some important respects. In Canada, for example, single-detached dwellings made up only 57% of the stock in 1996, compared to 78% of the stock in Australia at that time (see Table 6). A second difference is the relative scarcity of small dwellings in Australia. Dwellings containing at most one bedroom made up only 6% of all dwellings in Australia (2% of owners and 13% of renters) versus 17% of all dwellings in Canada (4% of owners and 39% of renters). In contrast, large dwellings (three bedrooms or more) make up 71% of all dwellings in Australia versus just 57% in Canada. Finally, Australian mortgage lending differs from Canada in that

the typical mortgage is a variable-interest level-payment loan. In Canada, the typical loan is a rollover level-payment mortgage (3-8 year term with principal amortized over 20-25 years).

Table 6 Occupied private dwellings (thousands) by tenure and dwelling type, showing number of bedrooms, Australia, 1996

	Number of bedrooms					All dwellings
	1 or fewer	2	3	4	5 or more	
All private occupied dwellings	380	1,476	3,234	1,186	219	6,495
Owner-occupied	97	728	2,287	986	184	4,283
Single detached	34	461	2,164	971	180	3,810
Other dwelling	63	268	123	15	4	473
Rented, rent-free, or other	283	748	946	199	35	2,211
Single detached	32	205	782	187	31	1,236
Other dwelling	251	543	165	12	4	975

Source: ABS special request matrix, Census of Population and Dwellings, 1996

Homeownership rates, trends, and prospects

Australia has a higher incidence of homeownership than does Canada; in 1995-96, 70% of Australian households were owner-occupiers (versus 64% in Canada). The overall incidence of homeownership has been at this level since about 1960, up from 50% of all households just after the Second World War. About 60% of these homeowners in 1995-96 were mortgage-free. The proportion of households who are mortgage-free homeowners has increased progressively (rising from 39% of all households in 1985-86 to 42% in 1995-96). This trend may continue as Australia's population gradually ages. However, the recent increase in the diversity of financial instruments available has meant that increasing numbers of loans—secured against dwellings—are being taken out for non-housing purposes, and this may retard the further rise of mortgage-free homeownership in the future.

Table 7 Households (thousands) by structure and tenure type, Australia, 1995-96

	Separate house	Row, terrace house, or townhouse	Flat, unit, or apartment	Other	All households
All households	5,394	555	851	59	6,859
Owner-occupier	4,311	223	228	--	4,789
Mortgage-free	2,561	133	139	25	2,858
With mortgage	1,750	90	88	--	1,932
Renter	994	307	581	--	1,908
Public	192	95	115	--	402
Private	698	202	448	22	1,369
Rent-free	104	--	--	--	137

Note: These data are based on the notion of household as housekeeping unit. As a result, there may be more than one household per occupied private dwelling.

Source: Unpublished data, 1995-96 Survey of Income and Housing Costs, Australian Bureau of Statistics

As noted in Table 7, about 90% of homeowners lived in separate (single-detached) houses in 1995-96. Of renter households, 51% lived in separate houses and 31% lived in flats, units or apartments. Almost 34% of households who owned their own home outright were couples with no children. Lone-parent households accounted for 6% of outright owners, and lone person households made up 24% (based on table 8.5). The vast majority (81%) of couple households were owners, with only 17% renting. Of lone parent families, 52% were owners, 20% rented public housing and 24% rented privately.

Table 8 Households (thousands) by type and tenure, Australia, 1995-96

	Owner without mortgage	Owner with mortgage	Public sector renter	Private sector renter	Live rent- free	All tenures
All households	2,858	1,932	402	1,369	137	6,859
Couple	1,882	1,456	117	520	70	4,099
No children	966	380	32	220	33	1,650
Dependent children only	468	825	68	249	27	1,665
Other	447	252	17	51	9	785
Lone-parent family alone	176	124	115	139	--	582
Person living alone	693	271	163	418	57	1,658
Other	108	80	7	293	6	519

Note: These data are based on the notion of household as housekeeping unit. As a result, there may be more than one household per occupied private dwelling.

Source: Unpublished data, 1995-96 Survey of Income and Housing Costs, Australian Bureau of Statistics

As seen in Table 8, aggregate homeownership in Australia has been stable at approximately 70% since 1960. However, this in part is attributable to aging of the population because there are signs of an underlying decline in homeownership among the young. For example, if the age distribution of population had not changed since 1975, the application of age-specific homeownership rates for 1994 would have resulted in a decline of 2 percentage points in aggregate homeownership in that year. Put differently, for those in the 30-34 year age group (conventionally the average age of entry into homeownership), homeownership rates have declined from 70% in 1975 to 55% by 1994.

Why has this happened? In the last decade, several policy factors have impinged negatively upon the affordability and hence accessibility of homeownership. The noteworthy changes are the following.

- *Changes in retirement income policies.* These are important in terms both of the choice set and the risk factors. Australia moved to a compulsory, self-funding superannuation scheme about 10 years ago which means that now employees have the equivalent of about 10% of their wages paid into a superfund on their behalf by their employer. This has changed both savings opportunities and, possibly, the incentive to become a homeowner. Along with an evolving and increasingly deregulated industrial relations environment, it may have contributed to a downward pressure on middle incomes.
- *Changes in funding of postsecondary education.* For the past decade, students have had their tertiary education funded under a Higher Education Contribution Scheme (HECS). This has resulted in many young adults entering the workforce with a debt of anything up to A\$ 30,000 (equal to a 20 - 25 per cent deposit on a modest starter home). This is automatically repaid from earnings at a tax surcharge of 1-3% once income exceeds average weekly earnings. For students who have borrowed to finance their living expenses, loan repayments are added to their HECS bill.
- *Changes in child maintenance and childcare arrangements.* These have similarly imposed additional demands on households with children. Fathers who separate from their spouses now have child maintenance automatically deducted from their earnings. Families where both parents work now have reduced access to subsidized childcare.

Special factors affecting homeownership

The federal and State governments of Australia have actively encouraged homeownership over the years. Much of this encouragement has come about through mortgage interest subsidies that have reduced the cost of homeownership relative to renting. In 1964, the federal government introduced a Home Savings Grant Scheme that gives a grant to first-time homebuyers who accumulate savings in a

savings bank. This grant provided a A\$ 2 grant for every A\$ 1 saved up to a maximum, and was not means-tested. The program was terminated in the 1970s, then re-introduced as the Home Deposit Assistance Scheme (HDAS) with restricted eligibility. HDAS grants A\$ 1 for each A\$ 1 saved. In 1983, the federal government introduced the First Homeownership Scheme (FHOS) to assist first-time homebuyers and stimulate housing construction. It was targeted to low and middle income earners and provided a flat dollar amount of either A\$ 5,000 as a grant upfront or A\$ 7,000 taken over 5 years in the form of a mortgage payment subsidy. Almost all recipients took the upfront grant. Almost 500,000 first-home buyers were assisted under FHOS. By 1992, FHOS had been phased out. This scheme was criticized as being of little assistance in the high-cost States, where it did little to help low to middle income households accumulate the needed downpayment. It was criticized generally as simply bringing forward by 2-3 years the purchasing decisions of those who were able to meet the finance requirements. An alternative view is that such programs did contribute a high level of homeownership (higher than Canada), a level that is not sustainable in the absence of subsidies.

In the past decade, the most innovative lending practices have not come from the private sector but from individual Australian States.

- *Low-start loans.* Perhaps the most significant measure to improve access to homeownership has been the use of low-start loans. These graduated-payment mortgage schemes were introduced in several States in the mid-1980s and were intended to improve the affordability of homeownership at a time of rapid inflation. The schemes simultaneously affected the downpayment, annual payments and the risks associated with ownership. Alongside the low-start schemes—which provided access to homeownership for between 50,000 and 100,000 households over their period of operation—were smaller-scale shared-equity schemes which provided an interface with subsidized public rental housing and subsidized homeownership for several thousand households. Low-start lending schemes effectively replaced FHOS.
- *Mortgage assistance.* A small-scale Mortgage Assistance Scheme (MAS) has underpinned all lending to low-income purchasers. MAS is the mortgage part of the Mortgage and Rent Assistance Program (MRAP). It is federally funded in the sense of being a tied grant to the States. However, the States can use the money as they choose. That is why some states have mortgage assistance schemes and others have deposit assistance schemes. The operation and scale of this scheme varies among states but generally short term (up to 12 months) assistance is provided to low to middle income purchasers having difficulty in meeting repayments on housing loans obtained in the private market. This assistance has generally been in the form of an interest free loan or a grant. Some states have used the federal funds to continue with small-scale deposit assistance schemes. Numbers assisted vary with the interest rate climate but in the mid-1990s average assistance varied from A\$ 2,000 to A\$ 5,000 to between 500 and 2500 households annually. Other than MAS, there have been no significant explicit support mechanisms for home purchase throughout the 1990s despite lower affordability levels compared with a generation earlier. In part this has been justified by the improvements in affordability over the past 10 years made possible by interest rates which are currently around 6-7% and the lowest they have been for almost 30 years.

At present, the federal and state approaches to housing policy are aimed at the needs of specific target groups, notably low-income earners and social security recipients. Housing assistance is provided by the federal Government and State and Territory Governments through public housing, rent supplements, and home purchase assistance. The Housing Assistance Act 1996 authorizes the federal government to negotiate a Commonwealth State Housing Agreement (CSHA) with each State or Territory. The CSHA sets out the terms for the provision of housing assistance for rental housing, home purchase and other specific housing programs. Six program areas may be discerned here: public housing, private rental assistance, home purchase assistance, crisis accommodation, housing assistance for indigenous peoples, and other housing programs. Details of federal assistance provided under the CSHA for 1997-98 are noted below.

- *Public housing.* Public housing consists of dwellings owned and managed by State and Territory housing authorities that are available at subsidized rents. Rents are generally set at a maximum of 25% of income. Government expenditure on public housing was approximately A\$ 1.4 billion in 1996-97. In 1996-97, 404 thousand households (6% of all households) lived in public housing. There has been little new construction of public housing in the last decade.
- *Rent supplements.* The federal Rent Assistance Program assists low-income people who rent privately and pay rent in excess of a specified maximum level. As at March 1998 there were about 911 thousand recipients of rent assistance, with total subsidies of A\$ 1.48 billion paid in 1997-98. Only about two thirds of rent assistance recipients are private renters as defined in the census. The remainder either live in group households or with relatives and are not solely responsible for the rent or they are boarders or lodgers, paying rent to an owner-occupier. As with public housing renters, a large proportion of rent assistance recipients are either lone persons or lone parents. Under the CSHA, the State and Territory Governments also assist low income earners with the costs of rent bonds and relocation in the private rental market. In 1996-97, almost A\$ 60m was provided through these arrangements.
- *Home purchase assistance.* Under the CSHA, State and Territory governments provide home purchase assistance to low to moderate income earners, including loans, shared equity schemes, deposit assistance and mortgage relief. In 1996-97, government expenditure on home purchase assistance arrangements was A\$ 520 million
- *Crisis accommodation.* The federal government provides capital funding for crisis accommodation—A\$ 40 million in each of 1996-97 and 1997-98—under the CSHA. The federal government and State and Territory governments also provide assistance to people who are homeless or at imminent risk of homelessness, through the Supported Accommodation Assistance Program (SAAP). In 1998-99, federal funding for SAAP was A\$ 230 million. Funds are provided for services such as refuges, shelters and halfway houses, and for referral, counseling and advocacy services. According to the Australian Institute of Health and Welfare, at least 101 thousand homeless persons received assistance from agencies in 1996-97. Clients between 15 and 19 years of age were the single largest age group, accounting for one-fifth of all clients. In two-thirds of all cases, the duration of crisis accommodation was one week or less.
- *Housing assistance for indigenous peoples.* The 1996 Census suggests that there is a national shortfall of almost 39,000 bedrooms to adequately house indigenous families. The Community Housing and Infrastructure Program (CHIP) provides funds for the construction, purchase, repairs and management of community housing as well as for the provision and maintenance of housing related infrastructure (essential services such as water, roads, sewage and electricity). In 1997-98, CHIP expenditure totaled A\$ 231 million, of which around half went to the provision of housing. The rate of homeownership for Aboriginal family and lone-person households was estimated in the 1996 Census to be 31%, versus 71% for the non-indigenous population. Through the provision of low-interest loans, the intent of the Homeownership scheme is to reduce the gap in incidence of homeownership between indigenous and non-indigenous peoples. The scheme targets low-income families with the capacity to repay a long-term loan, but who have difficulty obtaining finance from traditional lending institutions. A total of 402 loans were made in 1997-98, with the total loan portfolio administered now at A\$ 251 million.
- *Other programs.* Federal housing assistance provided under the CSHA and the Rent Assistance Program is complemented by financial assistance for housing through a number of other programs: e.g., residential care for frail older people (wherein the federal government funds the construction and operation of facilities such as nursing homes and hostel) and accommodation for people with disabilities.

Despite these policy initiatives, the gap between homeowners and private renters is growing. There is evidence that homeownership is becoming less affordable for tenants in the private sector. The ongoing curtailment of direct subsidies under the homeownership programs listed above exacerbates that gap and helps explain why the incidence of homeownership has not increased substantially in the past decade.

Emerging trends in policy and market mechanisms

An important respect in which Australia differs from Canada is that it was relatively late in deregulating housing finance. Before 1986, regulations kept housing finance separate from the rest of the financial sector. These regulations set ceilings on mortgage loan rates offered by savings banks and permanent building societies which in turn limited the return that these institutions could offer depositors. In periods of excess demand, lenders used non-price mechanisms to allocate mortgages: e.g., new-home loans given preference over other mortgage loans. The regulations also severely restricted the portfolio mix allowed these institutions; notably, the mortgage holdings of savings banks could not exceed 60% of bank assets. Deregulation came about quickly during the 1980s. New regulations gave lending institutions more latitude in asset portfolio starting in 1982, and the federal government removed the mortgage interest ceiling on new lending in April 1986. During this period, the government also eliminated stamp duties on mortgage transfers, and ended the prohibition on trading of mortgages across State borders. Prior to deregulation, the principal lending institutions were trading banks, savings banks, regulated by the federal government, and a number of non-bank financial intermediaries (NBFIs), the major ones being the State-based (and regulated) permanent building societies and credit unions. Trading banks concentrated on short-term finance to industry. Savings banks concentrated on lending for housing. Since deregulation, banks have merged their banking operations so that the distinction between trading and savings banks is no longer relevant and building societies, in the main, have been either absorbed into existing banks or converted to new banks. By the mid-1980s, banks alone accounted for almost 75% of lending for housing finance and banks and building societies together accounted for 97% of such lending.

Another significant feature of Australian mortgage markets has been the relatively late development of secondary mortgage markets. Secondary mortgage markets enable mortgage retailers (such as banks) to tap into deposits held by other institutions (e.g., pension funds and life insurance companies). This lag in the development of secondary mortgage markets has also given rise to the emergence of mortgage managers, relying on securitization and funding from wholesale investors such as life offices and superannuation funds, has placed new pressure on the conventional lenders in the 1990s. Currently, banks provide just over 80% of housing finance. The share of mortgage managers has increased from 1% of mortgage originations in 1990 to 15% in 1998. Mortgage managers compete by undercutting banks on interest rates. Competition among private lenders has generally been limited to the use of teaser or honeymoon rates for first homebuyers. These often have been attached to limited fixed term loans. The conventional mortgage instrument in Australia prior to deregulation was a variable-rate level-payment mortgage. This remains the predominant form, as the proportion of 2-5 year fixed-rate mortgages has seldom exceeded 10%. In the post-deregulatory era in the late 1980s, the banks experimented with graduated-payment loans but these tended to be used to shorten the term of the loan rather than to offset any front-loading problem at the time.

While the provision and financing of housing in Australia is broadly similar to that of Canada, this national profile has served to identify important differences. Two of these were selected by the Advisory Committee for further study: (i) the temporary mortgage payment assistance scheme and (ii) mortgage managers.

Temporary Mortgage Payment Protection Scheme

Currently (1998) in New South Wales (NSW), the Mortgage Assistance Scheme (MAS) provides short term help to people experiencing temporary difficulties with their home loan repayments as a result of an unavoidable change in their circumstances (such as unemployment, accident, illness or other crisis). MAS was devised to prevent the loss of owned homes through foreclosure, rather than act as a means to improve and sustain access to homeownership. It is not a grant, but a loan to be repaid. It is only available once the applicant can demonstrate that all other reasonable avenues of help have been exhausted and is intended as a last resort for buyers in danger of losing their home. Mortgage assistance is provided by way of a loan paid directly to the lender. This loan is usually an interest-free loan in the form of payment of home loan arrears and/or a subsidy towards home loan repayments for a period. While receiving mortgage assistance, applicants usually must meet at least part of their home loan repayments. How much depends on their circumstances. The maximum amount of mortgage assistance provided is A\$ 10,000 and the assistance is not provided for more than 12 months in total. Arrangements for repayment are generally instigated after 6 months of receipt of assistance. If there is no prospect of the borrower being able to sustain repayments, he or she is advised to sell the property.

These funds assist low-income households experiencing short-term problems in meeting mortgage repayments. Those receiving assistance under this Scheme have been mainly people who are temporarily unemployed. As of 1998, applicants must have a gross annual household income under A\$ 50,000, the total amount owed on the home must be under A\$ 145,000 and the value of the home must be under A\$ 300,000. Recipients must live in a mortgaged home, and the change in a recipient's financial circumstances must be such that (1) total loan repayments exceed 36% of gross household income, and (2) that the home loan repayment is at least 27% of gross household income. These are more generous than in most other States because of the greater difficulties of gaining access to homeownership in NSW.

Which level of government pays for this subsidy? In the past, the federal government has provided funds to the States through the Commonwealth State Housing Agreement (CSHA). As a rule, CSHA funding has not been tied to specific housing programs. However, until the 1996 Agreement, small amounts have been tied to specific housing programs of which MAS is one. MAS was developed by the NSW State government in 1982-83 under its Mortgage and Rent Relief Program and was adopted nationwide as the Mortgage and Rent Relief Scheme (MRRS) in the 1984 Commonwealth State Housing Agreement (CSHA). The States could use the funds for either mortgage or rental relief. Initially, federal funding under MRRS was not subject to matching requirements, but this soon changed and States were required to match MRRS dollar for dollar. Under the 1989 CSHA, MRRS was reconstituted as the Mortgage and Rent Assistance Program (MRAP) scheme, but States still had to match federal MRAP grants dollar for dollar. In the 1996 CSHA, MRAP and other tied schemes were absorbed into base (untied) funding. In the latest Housing Assistance Act, NSW is the only State which reports continuing use of funds for a mortgage assistance scheme. For a number of years the NSW scheme has been self funded with repayments on old loans financing any new ones. This has happened since the change in funding from a tied to untied basis. The officially reported information on assistance provided is based on expenditure or outlays on the scheme; it does not record repayments of loans. Thus, it is difficult to determine subsidy cost. Subsidy costs would be limited to the opportunity cost associated with foregone interest on funds loaned. Background to the funding arrangements can be found in the Housing Assistance Act Annual Reports, the latest of which (1996) is at <http://www.facs.gov.au/haa/index.htm>.

The experience in other States has differed. Outside NSW, schemes were set up in response to Commonwealth funding but these have not been maintained since funds provided by the Commonwealth were untied. While the schemes were in operation, some States applied a general test for eligibility for funds, others set limits on the maximum loan size and family income. The type of assistance also varies among States. In the mid-1980s, when they were initiated, some schemes refinanced part of the original loan to reduce payments to 25 to 27.5 per cent of income. In other

instances a maximum arrears payment was applied or regular payments were offered to lenders to reduce loan servicing costs to participants. States varied on whether or extent to which assistance was repayable. In 1986, for example, 1600 applicants (across all states) were assisted with average assistance varying from less than A\$ 1,000 in the low-cost States to over A\$ 3,000 (1986 dollars) in the high-cost states and average duration of assistance varying from 4 months to a maximum of 24 months. This variation in the approach to providing mortgage assistance has continued through to the mid 1990s. In 1994, for example, average assistance varied from A\$ 1,100 to A\$ 6,830 in the different States. Since 1996, no new funds have been provided specifically for Mortgage Assistance and those schemes which do continue are funded from revolving funds or repayments from past loans.

Across Australia, outlays have varied considerably with the economic cycle. In 1994, coming out of a recession and with interest rates declining, an amount of A\$ 5.7 million was provided in assistance to 1700 applicants. In 1992-93, at the end of a recession and with interest rates still relatively high, total funds for mortgage relief (including State matching) was A\$ 12.5 million (1993 dollars) which assisted approximately 2500 applicants. During the 1990s, the vast majority of those assisted were from NSW (where house prices—and so loan requirements—are considerably higher than in other States). The average amount of assistance for NSW applicants was just under A\$ 5,000 and the average duration of assistance was 5 months. From 1982-1996, direct outlays by the Federal government were capped at A\$ 30 million, and States were required to match the amount for both mortgage and rent assistance (although States could contribute more). In practice, mortgage assistance has varied approximately between A\$ 5 million and A\$ 15 million in total. In NSW, approximately A\$ 2 million annually in new loans is funded from repayments of past loans. The program is of significant assistance in the respects that (1) most loans are eventually repaid and (2) the average duration of assistance of less than 6 months.

Interest rates have declined from approximately 15% in 1990 to less than 6% in 1998. Given the preponderance of variable rate loans, there is relatively little call on this form of assistance in the current economic climate. Funding has changed as a result of change in ideology of federal government and move away from tied funding of any sort. NSW at least has tightened eligibility criteria

Goals, targets, and barriers

Some mortgagor homeowners can find themselves temporarily in difficult financial circumstances due to unemployment, injury, the exigencies of self-employment, or other factors. While homeownership may be affordable for such households over the longer run, such circumstances may be extreme enough to force them into foreclosure or premature sale of the home. Young renter households, in assessing whether to become homeowners, must also be mindful of the possibility that their financial circumstances could worsen suddenly in the future. The barrier to homeownership here is thought to be an imperfect capital market that prevents homeowners from financing their way through such circumstances.

With the switch from tied to untied funding, States will be tempted to target funds for housing to those on lower incomes (since MAS currently targets those on incomes above average earnings). With interest rates currently low, there is unlikely to be great pressure for such support. However, if interest rates do rise in the next five years as seems likely, many more marginal purchasers may have difficulties with repayment: particularly given labour market changes that have made employment less secure than previously. Because of the increase in volatility in financial markets and insecurity in labour markets, the need for mortgage protection insurance will be a key policy issue in relation to homeownership in the next decade.

The State of South Australia is looking to developing a public-private scheme with a US based insurer. However, at present there are only 238 households in South Australia repaying mortgage relief assistance. To some extent, the need for this has been replaced by a redraw facility specifically

introduced for clients with HomeStart loans (i.e. from direct but unsubsidized State government lending). This redraw facility enables households who have made voluntary (extra) repayments to access the accumulated balance of these to assist in the management of household finances in times of difficulty. Since December 1997 this redraw facility has been utilized 363 times - which exceeds the number of benefiting from the mortgage assistance scheme. This South Australia initiative might be an alternative mechanism for pre-empting problems

Closest equivalent in Canada: past or present

There is no direct equivalent program in Canada. In the early 1980s, the federal government introduced the Mortgage Rate Protection Plan (MRPP). MRPP offered insurance for households against the prospect of a substantial increase in interest rate upon mortgage renewal. Over the ensuing years, as mortgage rates fell sharply, the demand for MRPP waned. However, MRPP is different from MAS which is intended to give short-term protection to homeowners against foreclosure upon job loss. In a sense, the closest Canadian equivalent is the general-purpose EI program. However, EI benefits are paid to persons who become unemployed based on contributions, and do not distinguish on the basis of housing tenure or mortgage status.

Mortgage Brokers

The Australian financial system has undergone much change in the past few decades. Overall, the system has grown in assets and volumes. There has been much innovation in products and delivery systems. The system has become more competitive, and market shares have changed consequently. The system can be thought to have two sectors: credit institutions and funds managers. Credit institutions, such as banks, offer deposit and loan services and take related risks. Funds managers, such as pension funds, manage funds but do not bear risks. Prior to deregulation in the 1970s and 1980s, banks for their part had steadily lost market share to less-regulated institutions (building societies, finance companies, merchant banks, and unit trusts) who competed by "cherry picking" profitable financial products. Mortgage Managers can be thought to have emerged out of the mortgage brokerage business that existed in Australia before the banks came to dominate mortgage origination. As a distinct entity, official data have been collected only from 1993. However, a recent review by the Reserve Bank of Australia (1996) gives data for them back to 1986. Whatever one uses for a starting date, Mortgage Managers first became important in mortgage origination only after 1992. From under 1% of the market for originations in the late 1980s, mortgage managers came to account for 10% of all originations in 1997. As of 1996, there were approximately 100 firms in the industry, although the market was dominated by just a few firms.

Current conventional wisdom is that the role of Mortgage Managers may have peaked as bank lenders finally move towards use of securitization. Earlier in the 1990s, Deposit-Taking Institutions (DTIs)—now primarily banks—found it difficult to compete on price terms for new lending, without running the risk of extensive refinancing of their existing stock of loans. Mortgage managers who emerged as a significant force only in the early 1990s (as interest rates were dropping rapidly) were not subject to this constraint. Other (short term) arguments could be that (1) the banks made a series of poor commercial lending decisions in the mid to late 1990s and there may have been an incentive to cross-subsidize their business lending activities with their home loan activities and (2) that they were extremely conservative in looking towards new funding sources. Mortgage managers rely on securitization - until recently banks have kept their lending on balance sheet (where it is subjected to capital adequacy constraints—of 4% rather than 8% for general lending).

Table 9 Housing finance commitments (A\$ millions) by type of lender, Australia, 12 months ending October 1999.

Month	All banks	Permanent Building Societies	Mortgage Managers	Other Lenders	Total
Nov-98	4,188	188	371	590	4,966
Dec-98	4,219	187	318	558	4,964
Jan-99	3,334	150	326	526	4,010
Feb-99	4,092	193	399	628	4,914
Mar-99	5,394	231	498	785	6,410
Apr-99	4,643	188	442	682	5,513
May-99	5,053	181	473	722	5,956
Jun-99	5,292	215	506	776	6,282
Jul-99	4,951	199	495	744	5,894
Aug-99	5,064	222	543	787	6,073
Sep-99	5,253	234	597	850	6,338
Oct-99	5,587	214	554	799	6,600

Source: Australian Bureau of Statistics. 1999. *Housing Finance for Owner Occupation*. 5609.0. October 1999, Table 2.

Banks are now attempting to claw back home lending (which they traditionally have seen as part of their core business). Mortgage managers are thought to suffer from a lack of economies of scope; they can't provide the same range of products as the banks (e.g. credit cards) and can't offer the same sort of lending packages (e.g. interaction between borrowing and lending requirements of individuals). Banks have been pushed more towards relying on securitization as the pattern of household savings changes, in large part due to the implementation of compulsory pension contributions and the channeling of these into the pension funds. One argument is that the banks ultimately will squeeze out Mortgage Managers as a result of their national markets and larger economies of scale and as they rationalize their previous costly branch structure and implement new lending technologies. At least two of the major retail banks have centralized their home lending in one State through the introduction of new low cost technology to improve the processing of home loans. There have also been recent moves by two of the large banks/lenders (Westpac and CBA) to rely much more on securitization and off-balance sheet lending. Westpac started selling pools of its own mortgages in September 1996. In mid-October 1998, there was an announcement that the Macquarie Bank, which has an exclusive arrangement with the largest of the mortgage originators (Aussie Home Loans), is to sell PUMA, its mortgage funding division. One possibility is that any of the five retail banks could purchase this business and take over the leading position in the home loan lending market.

Goals, targets, and barriers

Mortgage Managers emerged as an industry in Australia because it was a profitable innovation, not as a result of public policy. During the 1970s and 1980s, banks had increasingly come to dominate mortgage lending. At the time, because DTIs (banks and building societies) were protected from competition, they were able to raise funds at below-market rates of interest, and earn profits by lending these funds out to home purchasers at a higher interest rate. The standard instrument here was the variable-rate level-payment mortgage loan. Players other than DTIs had to rely on higher-cost funding for which the margins in mortgage lending were either slender or negative. With deregulation, the protection afforded DTIs began to disappear. Mortgage Managers (insurance companies, brokers, and even real estate firms) used securitization and mortgage insurance to raise competitively-priced funds from pension plans and life insurance companies. In combination with a less-costly mode of operation than bank branches, Mortgage Managers were able to offer lower effective rates of interest on mortgage loans. Mortgage Managers have the advantage that they do not hold mortgages on their balance sheets and therefore do not bear the risks—or the capital costs—that come from holding a loan portfolio. Risks associated with the loans they originate are borne by mortgage insurers and the investors who buy the securities, and it is these two groups that hold capital against their share of the original loan risks. By

eliminating this capital requirement, securitization of mortgage loans effectively has reduced barriers to entry for lenders in the mortgage market. Mortgage Managers innovated new instruments and options (e.g., fixed-rate loans) and expanded the pool of funds available

Mortgage Managers compete directly with banks and other lenders for mortgage origination and servicing. Such competition puts downward pressure on mortgage interest rates as well as on origination and servicing costs and thereby helps make homeownership more affordable. We can only speculate here because the evidence is largely anecdotal; no one has published an independent study of this phenomenon, likely because much of the data required are commercial and secret. Most probably, Mortgage Managers have contributed towards pushing the conservative retail institutions into changing their methods of funding their mortgage lending (to off-balance sheet lending and reliance on securitization); they have encouraged banks to develop more complex loan packages. An accompanying consequence of deregulation was to force banks to reduce cross-subsidies in their array of financial products to better compete with specialist suppliers such as Mortgage Managers. Policy changes in the areas of taxation and compulsory contributions described above have had an important impact on the structure of the funds manager sector (particularly the pension funds). However, important to the rapid growth of the industry since the early 1980s has been the high average rate of return on fund investments over the period.

Notwithstanding the distinction between the two sectors, there have been increasing overlap between them. Banks have become active in funds manager business through subsidiaries, and funds managers have become active in areas of traditional bank business such as mortgage lending. Initially a large share (some 30-40%) of lending facilitated by Mortgage Managers was for refinancing rather than new loans. This suggests that existing borrowers benefited from the competition that Mortgage Managers created. In general, Mortgage Managers issue higher value loans than the banks (currently A\$ 145,000 versus A\$ 119,000 for all loans and A\$ 138,000 versus A\$ 98,000 for refinanced loans) and at higher LVRs (currently 84.8% versus 68.8%). Unfortunately, the data on lending to first-home buyers do not separately identify Mortgage Managers and other lenders. To the extent that Mortgage Managers have put downward pressure on (primarily variable) rates, access may have improved. Mortgage Managers have not been as competitive in relation to fixed rate lending (which is only a small fraction of all lending in Australia). However, an alternative theory is that they have enabled higher-income borrowers to increase their loans (which could be used to fund more expensive houses or other activities) rather than having any impact on access to homeownership.

The Mortgage Managers mechanism has neither direct costs nor foregone tax revenue for governments. However, the federal government in Australia is thought to be committed to a "level playing field" for financial institutions. Gill (1998: p. 51) argues that securitization "has flourished in an environment of comprehensive and well-documented laws and guidelines."

Closest equivalent in Canada: past or present

There is no equivalent to a Mortgage Manager in Canada. We do have mortgage brokers, although their importance in originating mortgages has diminished steadily over the years. Mortgage brokers link up individual lenders and borrowers, but the scale of their operations are typically small. In contrast, Mortgage Managers draw on pools of funding that are much larger and can therefore be organized into an efficient and competitive national or regional lending organization,

Can the concept of a Mortgage Manager be applied in Canada? It can be argued that our large national banks are relatively efficient mechanisms for retailing mortgages. In a day and age when bank branches were densely spread across urban Canada, it was argued that these retail outlets could serve as one-stop centers for all household financial needs. With the acquisition by banks of stock brokerage and insurance businesses over the past decade, the potential became even more apparent. At the same time, the financial services business has increasingly been moving on-line (first by telephone, and now

increasingly by Internet). Physical proximity to one's customers is no longer as important as it once was. Competition for customers through judicious bank branch location has been replaced by competition through financial product, product, and price differentiation. This competition has made necessary considerable redirecting of expenditures among bank activities and a renewed focus on efficiency. Here, the devolution of bank mortgage retailing into a subsidiary not unlike a Mortgage Manager is plausible. At present when a bank initially retails a mortgage, it moves that mortgage onto its balance sheet and at the same time must show sufficient reserves of deposits to make the risk in lending tolerable. That mortgage loan then moves off the balance sheet when the mortgage is sold in a secondary market. A bank subsidiary could act like a Mortgage Manager to keep mortgage loans off its balance sheet.

While Canada does not have a single financial institutional equivalent fulfilling all the functions undertaken by Australia's Mortgage Manager, differences between the two countries in historical development, evolution and regulation of the financial mortgage lending sector have resulted in the benefits of Mortgage Managers arising through alternative delivery mechanisms. As is the case with Australia's Mortgage Managers, Canadian Mortgage Brokers access funding for mortgage lending from alternative non-deposit taking sources such as pension funds and insurance companies. Similarly, Canadian Mortgage Brokers have increased competition in the mortgage lending business by acting as an intermediary between a range of funding sources and borrowers by offering interest rates below traditional deposit-taking institutions' posted lending rates. While Mortgage Managers in Australia employ mortgage insurance and securitize mortgages in order to reduce mortgage borrowing costs by reducing/eliminating lender's capitalization requirements. Canadian lenders have access to mortgage insurance either from the Canada Mortgage and Housing Corporation (CMHC) or the General Electric Mortgage Insurance Corporation (GEMIC) and are able to employ off-balance sheet lending through the use of mortgage securitization being provided through CMHC's Mortgage-backed Security (MBS) Guarantee Fund. In Canada, Mortgage Brokers accounted for about 14% of new mortgage originations (in 1998) which is slightly higher than the 10% of all originations (in 1997) through Australia's Mortgage Managers.

United Kingdom National Profile and Selected Mechanisms

National Profile

At a population of about 54 million persons in 1991 (date of the latest Census), Britain is about twice the size of Canada. As well, Britain is different from Canada in that its population has grown slowly in recent decades: up only 11% since 1951. Both nations experienced a postwar baby boom that increased population overall and shifted the age mix first towards young cohorts and today towards the middle aged. Nonetheless, Britain in 1996 still had a population that was still somewhat older than in Canada; 15% of the population was aged 65 or older, and only 32% aged under 25 (versus 11% and 34% respectively in Canada).

Table 10 Households, persons in households, and average household size, Britain, 1991.

	Households with residents (thousands)	Residents in household (thousands)	Average household size (persons/hhld)
Permanent	21,802	53,875	2.5
Owner occupied	14,458	37,576	2.6
Rented	7,344	16,300	2.2
Rented privately	1,550	3,047	2.0
Rented with job or business	420	1,126	2.7
Rented from housing association	685	1,320	1.9
Rented from local authority or new town	4,629	10,659	2.3
Rented from Scottish homes	60	148	2.4
Nonpermanent accommodation	95	180	1.9

Source 1991 census, Report for Great Britain (Part 1), Volume 2, page 531.

How comparable are living arrangements today in Britain and Canada? Direct comparisons are impeded by a difference in the definition of a household. In Canada, every occupied dwelling contains exactly one household. In contrast, the British Census definition allows more than one household in a dwelling: each household occupying a "household space" within the dwelling. In practice however, few British dwellings contain more than one household. Nonetheless, Britain has modestly more households proportional to its population, and average household size (at 2.5 persons) is slightly smaller than in Canada. While comparable data on "household spaces" are not available for Canada, the British data suggests how some households cope with housing that might be too expensive or too large. In the 14.450 million owner-occupied dwellings in Britain, we find 14.473 million household spaces. Thus, there are 23 thousand secondary household spaces. Of these, 3 thousand are owner-occupied (that is, the household co-owns the dwelling together with another resident household). Note that these numbers do not take account of persons or families who share a *housekeeping* unit with others. Overall, in England alone in 1996, there were about 12.028 million couples and 11.981 million other persons aged 20 or older, for a total of 24.009 million potential households. The actual number of households in England is about 84% of this number. This is higher than the 79% reported above for Canada; put differently, English adults are more likely to live in separate households than are their Canadian counterparts.

Table 11 Dwellings and household spaces in dwellings with residents (all data in thousands), Britain, 1991.

Tenure of dwelling	All dwellings	All household spaces	Tenure of household space			
			Owner occupied	Rented privately	Rented other	Vacant
All dwellings with residents	21,654	21,810	14,453	1,964	5,371	22
Owner occupied	14,450	14,473	14,453	18	1	1
Rented privately	1,845	1,956	0	1,939	0	17
Rented other	5,360	5,381	0	7	5,371	3

Note: Rented privately includes rented with job or business association, local authority or new town, or Scottish Homes. Rented other includes rented from housing association, local authority or new town, or Scottish Homes. Other unoccupied includes second homes, holiday houses, and student housing. Vacant includes "other unoccupied" household space.

Source: 1991 census: Report for Great Britain (Part 1): Volume 3: page 1446

The household space occupied by an English household is typically smaller than for households in Canada. Of households in England in 1996-97 (data for all of Britain are unavailable), 71% occupied between 4 and 6 rooms (versus just 49% in Canada) and only 16% occupied more than 6 rooms (versus 40% in Canada). This is not because of a difference in the mix of owners and renters in the two countries. Among homeowner households in England, 73% occupy 4 to 6 rooms (versus 42% in Canada), and only 22% occupy more than 6 rooms (versus 56% in Canada). In the English survey, kitchens are excluded from the room count if narrower than 2 meters, so that this accounts, in part, for the lower room counts.

Table 12 Households (thousands) by tenure showing rooms, England, 1996-1997

	All households	Number of rooms in household space							
		1	2	3	4	5	6	7	8 or more
All households	20,147	216	595	1,820	4,111	5,985	4,215	1,720	1,483
Owner-occupiers	13,609	14	141	522	2,323	4,183	3,483	1,574	1,368
Renters	6,538	202	454	1,298	1,788	1,802	732	146	115
Rented privately	2,046	121	166	286	517	502	270	86	97
Rented other	4,492	81	288	1,012	1,271	1,300	462	60	18

Source: Office of National Statistics, Social Survey Division Housing in England, 1996/97 (London: The Stationary Office) Tables A1.16, A1.21.

Homeownership rates, trends, and prospects

In Britain in 1991, 67% of all dwellings (66% of household spaces) were owner-occupied. This is higher than the 64% of dwellings that were owner-occupied in Canada in 1996. However, the Survey of English Housing (conducted by the Office for National Statistics) in 1996-97 reports that 70% of the population in England (excludes Scotland, and Wales) lived in owner-occupied housing, about the same as for Canada. This is because, in Canada, owner-occupied dwellings typically contain more people (2.9 persons in 1996) compared to England (2.6 persons on average) whereas rented dwellings contain about the same number of persons (2.2 on average) in the two countries. In Britain, the social rental sector (which includes council housing, Scottish Homes, or housing association) accounts for over two-thirds of all rentals. In Canada, the social rental sector accounts for perhaps only one-fifth of all rentals. For much of the twentieth century, rent control and security-of-tenure legislation has deterred investment in private rental accommodation. Further, council housing was attractive and available to a wide slice of the population, and the tax treatment of private rentals was less favorable than in Canada. Although this climate has improved in the last decade, individual investors in residential real estate in Britain still cannot deduct a rental loss against other income, an important restriction in the early years of investor ownership in a time of inflation. Unsurprisingly, there are still relatively few private rental dwellings in the market. For many British consumers, choice is mainly among three alternatives: (1) the

social rental sector, for which eligibility must be established, (2) owner-occupancy where this is financially feasible, or (3) sharing accommodation either within a larger household or in a shared dwelling.

There is a considerable difference between the two countries in terms of the propensity to homeownership by age group. In general, young adults in Britain are more likely to live in owner-occupied dwellings than are their counterparts in Canada, while the opposite is true for the elderly. For example, among persons aged under 35 and living with a partner, 69% lived in owner-occupied dwellings in England, compared with only 60% in Canada in 1996.

Table 13 Persons (thousands) by living arrangements by tenure showing age, England, 1996-97.

	Age of person									All ages
	Under 20	20-24	25-29	30-34	35-39	40-49	50-64	65-74	75 or over	
All persons	12,316	3,034	3,782	3,960	3,607	6,662	7,672	4,119	3,202	48,353
Living with partner	72	810	2,197	2,752	2,776	5,261	6,104	2,814	1,272	24,056
One family in household	57	734	2,072	2,646	2,677	5,014	5,774	2,699	1,246	22,919
Owner-occupied	12	348	1,439	2,002	2,119	4,255	4,889	2,136	888	18,087
Rented	45	387	634	644	558	758	885	563	358	4,832
Two families or more	15	76	125	106	99	247	330	115	26	1,137
Owner-occupied	10	47	87	70	78	194	281	83	19	870
Rented	5	29	38	35	20	52	48	32	7	267
Not living with partner	12,244	2,225	1,584	1,208	831	1,401	1,569	1,306	1,929	24,297
Person living alone	32	223	396	454	342	623	987	1,004	1,576	5,637
Owner-occupied	2	65	209	259	233	386	586	538	821	3,099
Rented	30	158	187	195	109	237	401	466	755	2,538
One family in household	11,402	1,383	760	526	372	596	342	119	123	15,623
Owner-occupied	7,504	1,019	470	257	180	361	203	72	81	10,146
Rented	3,898	364	290	269	192	235	139	47	42	5,477
Two families or more	810	619	428	228	117	182	240	183	230	3,037
Owner-occupied	470	195	163	124	76	113	153	117	183	1,594
Rented	340	424	265	104	40	69	87	66	47	1,443

Note: Grossed by H4A. April 1996-March 1997.

Source: Survey of English Housing, 1996-1997, Table 845 (unpublished table obtained from Jeremy Grove and Robin Oliver, Department of the Environment, Transportation and the Regions).

Since 1977, housing associations have offered a kind of shared ownership. Housing associations are the British equivalent of Canadian non-profit housing organizations. (British housing associations with non-charitable status may build housing for sale; those with charitable status are more restricted in their activities.) New or existing housing is purchased, with the purchaser making mortgage payments for the ownership part and paying a subsidized rent for the remainder. This housing is financed in part by a building society mortgage secured on a long lease, and in part by a loan from the Housing Corporation (i.e. the Corporation responsible for housing associations, playing a role like that of CMHC). At any time a purchasers may pay to add to his percentage ownership; this is almost always done by increasing the mortgage or obtaining a new one. Payment is based on the appraised value at the time of the additional purchase. The lender has as its security the whole value of the property, despite the fact its original loan might have been for 50% of the value. If the house is sold, the purchaser receives a share of the price proportionate to his or her ownership share (Balchin, 1995 p. 157). Before the house is sold the housing association arranges for an appraisal and then has a specified period (usually a month) in which to sell the house at the appraised price. At the end of period, if the house is not sold, the owning household takes over the selling task. If the household sells at the appraised value or above, it pays the housing association its proportionate share; if below the appraised value, it pays the proportionate share of the appraised value. However, the housing association does not receive any part of the price which is attributable to the appraised value of improvements (Caplin et al, 1998, p. 214).

Housing associations in England funded 3,345 homes under shared ownership plans in 1991/92 and 11,954 in 1995/96 (Cope, 1999, Table 10.2). Shared ownership is more popular in areas where house prices are high. Note that house prices in 1998 and 1999 rose substantially in London, and recently *The Times* reports that new one-bedroom apartments in London's Docklands, a new area close to central London, are available under this funding for low income buyers. In *The Times*, Weekend section, Dec. 4, 1999, p. 14, an article describes a buyer who is a 28-year-old single nurse. The scheme is operated by the Boleyn and Forest Housing Association of East London. According to the report in *The Times*, the one-bedroom apartment price is £77,500; the purchaser's mortgage payment is £310 per month on her 60 per cent share and rent of £140 per month on the remaining 40 per cent of value; her annual income is £11,078. This yields a monthly housing cost of more than 50 per cent of income. High ratios are not rare in Britain, especially when interest rates are high, but it is also possible that the amount in this report given as annual income is annual take-home pay rather than annual gross income. A Department of the Environment survey in the mid-1990s found that 65 per cent of responding shared owners were under 30 and 80 per cent said they would not have become homeowners without participating in the scheme (Caplin et al, 1998; Cope, 1999). It should be noted that under the housing association schemes the purchaser receives a substantial government subsidy.

Special factors affecting homeownership

The 1980s saw a major rise in owner-occupancy. The owner-occupied rate went from 56% in 1980 to 67% in 1991. However, in contrast, the 1990s saw a stagnation in the rate of homeownership. Why the increase, and why did it end?

One factor was the 'Right to Buy' (RTB) policy—introduced in 1980 by the British government—to sell off of large amounts of public housing to incumbents at deep discounts. Since 1980, about 1.4 million homes have been transferred to homeownership. In the 1990s, RTB sales waned: partly the result of exhaustion in the relevant stock of public housing and of tenants suitable for privatization, partly the result of the slump in the housing market, and partly the result of poor income growth and high unemployment. At present, the social rental sector still accommodates about 25% of all households.

A second factor was the change in economic prospects over the past two decades. In the 1980s, there was a general increase in prosperity. Consumers used part of this increase in incomes to switch from renting to homeownership. However, economic prospects dimmed during the poor economic environment of the early to mid 1990s. Many would mention here the permanent shift, due to globalization, to a less-secure job-tenure environment, with more part-time workers, more self-employed workers and (possibly) shorter job-tenures for the rest. Hard evidence on this point is still elusive.

A third factor has been the volatility of house prices. In the 1980s, house prices rose sharply, and the capital gains created a favourable rate of return for homeowners. The price bubble burst at the end of the 1980s, resulting in a sudden and sharp drop in both real and nominal house prices. This led to negative equity among households with high-LTV mortgages. In 1992, 69,000 (or 0.69%) of mortgaged houses were repossessed and 352,000 mortgages were in arrears 6 months or more. Also in 1992, 21% of all owner-occupiers had negative equity. By October 1993, 41% of all households in London and the Southeast who had purchased between 1988 and 1991 had negative equity. In all, the mortgage default crisis saw 0.5 million households (perhaps 1.3 million individuals) suffer the fate of mortgage repossession, losing their homes in the process. In giving owner-occupancy a bad image, the default crisis has made some households less willing to get into homeownership.

A fourth factor was the financial liberalization during the 1980s that made mortgage credit more readily available, although partly offset by higher real interest rates. In general, private provision of mortgages is unregulated. Hence, there has been a proliferation of special deals for first-time buyers offering initial discounts. LTVs of 95-100% were common, although mortgage indemnity insurance

(protecting the lender) rates were higher on these 100% LTV loans. Liberalization has accompanied the deregulation that occurred after 1981. In the last few years, there have been demutualizations of some major life insurance companies. Telephone selling of mortgage lending added to competitive pressure. A new approach to conveyancing (pioneered in New Zealand) occurred also in Britain in the early-to-mid 1980s, and charges fell substantially. Real estate agent fees are low (though service is inferior to US); it is also a very competitive industry. As well, mortgage origination fees are low because of ferocious competition. By making owner-occupancy easier to achieve, financial liberalization helped improve access to homeownership.

Fifth, aging of the postwar baby boom increased the share in the population in the house-buying age groups in the 1980s. For young households, the combination of low transaction costs, high rates of price inflation, the availability of 100% mortgages, and mortgage interest deductibility (for interest on a mortgage up to £30,000 and without the alternative, as in the U.S., of taking a standard exemption) was potent. These conditions provided an incentive to purchase a starter home at an early age and make move-up purchases several times. A high ownership rate for young households increased the overall homeownership rate. Since 1990, this demographic factor has receded as the baby boomers moved past the age of forming their first owner-occupied household. Also, mortgage interest deductibility has been reduced and is to be completely eliminated in 2000.

Sixth, major improvements in various tax-advantaged saving schemes in the 1980s, and the encouragement of private pension provision, made possible various mortgage schemes linked to different saving plans, e.g., the endowment mortgage where payments are interest only while at the same time payments are made into a separate tax advantaged fund (which may include equities). It is expected and hoped that the endowment will be large enough to repay the principal at the end of mortgage span, although in recent years that expectation has often not been realized. Also pension-linked mortgages were tied to tax breaks on pension contribution. These schemes all helped to enhance access to homeownership. Offsetting this, however, was the weakening of the welfare state safety net for owner-occupiers facing unemployment; the "Housing Benefit" in welfare payments was reduced in 1995 for mortgagors who become unemployed.

Seventh, the supply of privately rented housing continued to decline during the 1980s. This happened despite the fact that rent controls on new lettings were partially decontrolled in 1981. The 'political risk' that rent controls might return remains a discouragement to some potential private landlords and the tax treatment of rental income is not as generous as in North America. As well, there is little security for tenants in private rental sector. These factors may well push some households into homeownership that might otherwise have preferred to rent. There were offsetting trends in the 1990s. The abolition of rent controls in the 1988 *Housing Act* helped stem the decline in private renting while the difficulties some owners with negative equity experienced in selling their home forced them to become temporary landlords.

Emerging trends in policy and market mechanisms

Britain now has a more skeptical view of owner-occupation than was true in the 1980s. There is greater awareness of the risks of pushing owner-occupation beyond 'natural' limits both for individual households in an economic environment where incomes, employment, interest rates and house prices are (or at least, have been) volatile and of the risks for the economy in terms of restrictions on labour mobility and in terms of the implications of high levels of owner-occupancy, in interaction with our credit markets and other institutions, for macro-stability itself. The new buzz word is 'sustainable home-ownership'.

To the extent that policy makers or the housing and credit industries have a role to play in fostering sustainable home-ownership, British experience and policy debates would suggest the following:

- *Make mortgage products more flexible.* One innovation is the save-and-spend mortgage where households can choose every month to repay or borrow up to an agreed collateral-backed limit on the total debt. A second innovation might be mortgages with payment holidays.
- *Introduce saving and downpayment innovations.* The Home Loan Scheme for first-time homebuyers introduced under the *Home Purchase Assistance Act*, with the first loans made in December 1980. Under the Act anyone who had saved for a minimum of two years with a recognized savings institution and saved a minimum of £300 would receive a tax-free bonus of £40 (rising to a maximum of £110 for savings of £1000 or more). A saver applying for a mortgage and having at least £600 in savings, could get a government loan (administered by the lending institution) of £600 which was interest-free for five years. After five years the loan was in effect added to the mortgage and repaid over the life of the mortgage. Among requirements was one that the value of the house had to be below a set amount, which varied by region. Few loans were made under this Scheme. A major factor was the onset of house price inflation which both made the upper price limits unrealistic and reduced buyers' willingness to fulfill the two-year saving requirement because of the possibility of facing an unaffordable price at the end of the two-year wait. In an environment that was less inflationary and where 100% LTV mortgages were not available, the scheme might be more successful
- *Introduce low-start mortgages.* Such mortgages—offered by local authorities, new towns and housing association in the U.K.—were introduced in 1975 and were still available in the 1980s. Mortgage payments were to start at 20% below the normal rate and to rise to the normal rate in the sixth year. There was an income maximum and a property value maximum. There were few borrowers under this scheme, partly because building societies did not give it full support. This scheme was akin to Canada's Assisted Homeownership Plan (as it existed in the mid 1970s).
- *Increase the LTV ratio to 100%.* In the early 1980s the LTV ratio of Building Societies' mortgages increased sharply, a consequence of the ending of the societies' rate-setting cartel, so that societies raised interest rates and at the same time offered an increased range of non-interest-rate terms. The average LTV ratio rose from 74% to 81% and 100% LTVs were common. In the late 1980s 56% of first-time buyers had LTV ratios exceeding 90%. The Societies are insured against all but 20% of repossession losses so that, in the bust of the 1990s, the mortgage insurance sector bore most of the losses associated with repossessions, and mortgage insurance premiums have risen.
- *Base borrowers' qualification on the Loan to-Income (LI) ratio rather than the Mortgage Service Ratio (MSR).* The rate at which borrowers will qualify will vary less as interest rates change under the LI ratio guideline than under the MSR guideline, so that the LI ratio would tend to qualify more borrowers under relatively high interest rates than the MSR ratio would. Of course the use of the LI ratio will result in a relatively high MSR under high interest rates. British interest rates for mortgages—which were at 13.30% in 1983—were at 13.70 % in 1989. The increase in LTV over this period interacted with the small increase in interest rates to increase the average MSR for first time buyers from 19% in 1983 to 33% in 1989.
- *Encourage shared ownership schemes such as that introduced in 1997 by the Bank of Scotland and Warburgs.* The latter gives cheaper mortgage finance in return for a stake, up to 75% in the appreciation in the house bought with the mortgage. However, this is only to be realized when the mortgagor sells the house. The associated house price options are then sold on a secondary market. There was high demand for these mortgages, but the scheme was later withdrawn when mortgage interest rates rose.
- *Introduce policies and practices that reduce transaction costs.* In Britain legal costs and realtor charges are relatively low. Transaction costs in housing are a major discouragement to geographic mobility. In Britain there have been discussions of extending tax-breaks available to firms for employee relocation to households directly. Stamp duty (like land transfer tax in Canada) is low except for high-valued properties. Furthermore, this tax applies only to houses worth over a threshold amount (£60,000 in 1999). Overall transaction costs, including real estate agents' fees are only about 4.5% for a moderately-priced house which is not more than half the rate in Canada

and not much more than one-third the European rate. An associated policy is using variations in stamp duty to influence the housing cycle. For example in the slump of the early 1990s the stamp duty was eliminated for houses worth less than £60,000, and with the revival of house prices and incipient boom in London, the stamp duty was substantially increased for higher-priced houses in successive Labour Budgets starting in 1997. In Canada the use of a transactions tax policy by the federal government would need the co-operation of the provinces.

- *Encourage policies and practices which facilitate housing affordability and access by encouraging homeowners to accommodate lodgers.* Lenders have been reluctant to lend to owners subletting, but attitudes are gradually softening, partly as a result of the removal of rent controls on new lettings after 1988. There is no tax on income from 1 or 2 "lodgers" when a home is otherwise owner-occupied, if rental income is below a specified limit. Otherwise, there are no other tax breaks for landlords, e.g., no depreciation allowance, (though interest can be offset, of course), and any rental loss incurred by individuals cannot be deducted (as it can in Canada) from employment income; the non-deductibility of a loss is particularly important for a new investor. In the U.K., there is a capital gains tax but appreciation on an owner-occupied home is exempt.
- *Encourage mortgage securitization as a way of reducing lenders', and hence borrowers', mortgage costs.* In the U.K., mortgage securitization has had an up-and-down history. In the late 1980s, centralized mortgage lenders often using securitization took a 12% market share. In the early part of the 1990s, market rates and risks moved heavily against them, but there has been renewed activity in the last few years.
- *A well-designed social safety net can also help encourage access to homeownership.* In late 1991, a scheme was introduced in which income support (benefit) could be paid directly by the government to the mortgage lender on behalf of distressed households. The amount was half of the mortgage payment for the first six months of unemployment and the full mortgage payment subsequently. The generosity of this program was greatly reduced in 1995 as part of the British government's general reduction in the safety-net. Considerable research suggests that private insurance substitutes have not been either popular or effective. But in the context of a more volatile labour market and probably more volatile household structures effective insurance is likely to be an important issue.

While the provision and financing of housing in the U.K. is broadly similar to that of Canada, this national profile has served to identify important differences. Two of these were selected by the Advisory Committee for further study: (i) reducing realtor and legal transaction costs and (ii) Scotland's share equity ownership scheme.

Reducing Realtor and Legal Transaction Costs

In London, England, real estate firms normally charge a fee that is about 2% of selling price. The fee normally charged outside London is similar. Sometimes, the fee is even less. The biggest real estate firm in the Southampton area (Morris Dibben), for example, will negotiate an even lower fee. Consistent with this, fees in Suffolk range from 1.5% to 2%: the upper end of the range applicable to more-costly properties. In a recent British survey, vendors reported that total fees paid to real estate agents amounted to 1.8% of the mean price of their properties (U.K., 1998, computed from Table A4.2 and A4.4). These fees are low compared to the 6% traditionally charged in Canada. In the U.S., 6% is also the standard fee (Caplin et al, 1997, p. 193). In Britain, there is no MLS system, so that the selling agent is also the buying agent. In Canadian terms, listings in Britain are commonly "exclusive," although Morris Dibben, estate agents in Southampton note that multiple listings are possible (although unusual), in which case the fee is 2.5% to 3%.

Why do fees differ between Britain and Canada? One possibility is that British agents provide less service. Typically, as in Canada, they do advertise the property. Table 14 indicates that less than 20%

of British vendors pay separately (or are aware of separate payment) for advertising. Thus, typically in Britain as in Canada, real estate agent fees cover advertising. Even taking into account this payment where it does occur, total real estate agent fees are less than 2%. In Britain, households often visit properties unaccompanied by an agent, and vendors show their property, while in Canada agents accompany potential buyers to the property. According to Alan Holmans (Cambridge University), the practice of potential purchasers making appointments with vendors to view homes, is sometimes a considerable burden on vendors, with the possibility of many appointments over a substantial period. One problem is that sometimes there are no-shows. Do these differences in service account for the full difference in rate? It seems unlikely. In a theory-based paper, Anglin and Arnott (forthcoming 2000) find that for their assumptions the optimal commission rate is far below the 5-7% range currently typically prevailing in North America. They suggest that the North American industry structure may be responsible for the prevailing high fees.

Table 14 Transaction costs as percentage of typical house selling price, England & Wales versus Canada

Component of cost	England & Wales		Canada	
	Household survey data	Expert opinion	Expert opinion	
	Percent reporting payment (%)	Mean cost as percent of mean value (%)		
Vendor expense		2.297		
Real estate agent fee (exclusive) (multiple/MLS)	--	1.774	2	5 ;
Advertising	18	0.119	2.5-3	6 (3 to selling agent)
Other	91	1.655		
Legal fee	--	0.523		
Title transfer	59	0.316		
Other	42	0.207		
Purchaser expense		1.827		
Legal fees and tax		1.177		
Title transfer	73	0.328		
Search	69	0.086		
Land registry	69	0.101		
Transaction tax	40	0.651		
Other	50	0.013		
Mortgage origination expense		0.322		
Appraisal	38	0.098		
Administration	33	0.110		
Combined	15	0.085		
Broker/advisor	7	0.029		
Survey	38	0.142		

Notes -- indicates data not available. On survey data: "percent reporting payment" is percentage of respondents who reported expense in the category; mean cost is mean expense overall (i.e. computed including both zero and non-zero costs) as percent of mean property value (C\$190,560 for vendors, C\$199,680 for purchasers). On expert opinion data: British multi-agent fees are not split among agents, but go to agent who sells the property. Data for Canada are standard rates; standard rates for Toronto are currently somewhat lower.

Source: Computed using data in U.K. (1998); survey was carried out from October 1997 to July, 1998 by the U.K. Department of the Environment, Transport, and the Regions.

A second explanation is that there is no MLS system in Britain; instead, listings are typically "exclusive." A single broker lists the property and receives all the commission paid by the vendor. A non-exclusive listing, when it does occur in Britain, is not the same as in Canada. In Canada such a listing means the following: the house is sold through MLS; the purchaser's broker may be different from the listing broker; the listing broker receives typically only half of the commission. In Britain, the full commission is received by a single agent (the agent selling the property) in a multiple-agent listing. It is worth noting that the single agent in Britain receives slightly less (i.e. 2%) than the listing agent

typically does in Canada (i.e. 3%) in a situation where the property is sold by another agent. British households obtain information about houses for sale from the (listing) agents. Whereas in Canada, a potential purchaser will typically consult a single agent who will help in the market search, he or she will visit a variety of agents in Britain. This process is aided in Britain by the practice of producing a brochure for each property and of locating real estate offices in high traffic locations, close to retail stores and restaurants and with large window displays. In Canada, such displays and locations are unusual.

A third explanation is that there is more price competition in Britain. Goodman (1999) describes a Price-Waterhouse study in the U.S. in 1992 which found that the typical commission paid (where the median is calculated taking into account the zeros, i.e., houses sold without an agent) was U\$5,832, loan origination and legal fees averaged U\$1,383 and inspections and miscellaneous fees averaged U\$913; the average sale price was U\$119,000. There is evidence of cracks to this structure in Toronto, associated with the recent ruling that a real estate board must give access to the MLS to brokers not charging 6%. A firm in Toronto, Savvy, in late 1998 was offering rates of 3.5%, with 2.5 of these percentage points going to the selling agent and 1 percentage point to Savvy. In 1999 in Guelph, Ontario, Manton Realty Inc. was offering rates of 3.9 per cent. This rate is advertised in brochures and in the Yellow Pages Directory of the Bell telephone directory.

However, to understand fees in Britain, we need to look at other differences in the house purchase process. In England and Wales, the potential purchaser, as the first step towards completion of his purchase, negotiates an "agreement" with the vendor, setting the price and other conditions. In Scotland, a sealed bid auction generates the price. This agreement, however, does not have legal standing. Once this agreement is made, the purchaser negotiates a mortgage and his or her lawyer examines the title and conducts searches. A surveyor will inspect the property, noting physical defects and setting a valuation. The latter sets size of loan (Gibb and Munroe 1991, p. 165). A mortgage providers' survey is about £150 in Southampton, and from £100 -£150 in Suffolk (more for a large property); a full structural survey in Southampton is £500-600. A lawyer will examine the title etc. in a process known as conveyancing. A lawyer's conveyancing fee is from £250 (plus VAT at 17.5%, for a total of £294) upwards in Southampton and Suffolk, rising quite quickly in Southampton (to between £550 and £1000). The fee varies widely between firms, and within a firm is based on factors such as the value of the property, complexity, and urgency.

Only after a mortgage has been negotiated and the title has been searched is there a legally binding step, the "exchange of contracts". This document is equivalent to a Canadian agreement of sale and purchase, and is signed by both purchaser and seller. Up to the time of this exchange, the vendor may ask for a higher price-or might accept a higher price from another purchaser-and the purchaser may reduce his offered price, or withdraw. The time between agreement and exchange of contracts might be six months, in part because of delays of the municipality in answering queries. In any case, the purchaser and vendor cannot count on the delay being as short as a month. During this period the purchaser or vendor may withdraw. In particular, the vendor might be offered and might accept a higher price, in which case the purchaser would lose the house or the purchaser might reduce his offered price. At the agreement stage, the purchaser gives the estate agent a deposit, which is returned if the exchange of contracts does not take place. According to Gibb and Munroe (1991) some agents handle most elements of the process.

Real estate fees are part of the transaction cost of homes purchase. Other components of transaction costs include land transfer taxes and mortgage origination costs. An associated fee is the Land registry fee, £70 for property value £40,000-60,000 up to £300 for a property valued at £200,000 to 500,000. Further, various search fees may be needed, e.g., £70 - £120 for local authority search plus bank charges of up to £10 per search. Another expense is the "stamp duty" (referred to as transaction tax in the table above). It has been increased for higher-priced properties in every year starting in 1997 in order to dampen the increase in house prices in southern England. Over this period it has been zero for properties under £60,000 and just 1% on properties valued at between £60,000 and £250,000.

For higher-priced properties the tax has not only been increased but has become more steeply progressive over time. Prior to July 1997, properties valued at over £250,000 had stamp duty of just 1%. For properties valued at £250,000-£500,000, the rate increased to 1.5% in 1997, to 2% in 1998, to 2.5% in 1999 and to 3% in 2000. For properties valued at over £500,000, the stamp duty was increased to 2% in July, 1997, to 3% in 1998, to 3.5% in 1999 and to 4% in 2000. These rates are levied on the full amount, not the marginal amount, e.g. the stamp duty in 2000 on a property valued at £500,100 is £20,004.

Goals, targets, and barriers

This measure extends the possibility of homeownership to households who would otherwise be unable to afford it. If a household expects to change its quality of housing, or to move to another city, the cost of selling one home and buying another can deter homeownership. The probability of moving is high for young households (Clark and Dieleman, 1996) and so transaction costs are likely to be an especially important barrier for them. For some reason, British property markets have been more successful in reducing the barrier to homeownership that arises because of high transaction costs. Homebuyers in general reap the benefit from lower transaction costs. However, in Britain, households with more time available to do the legwork are better off than households with more income than time available. The group which would benefit if Canadian real estate fees and other transaction costs were reduced to the British level is all homebuyers purchasing using a real estate agent. Households which are relatively mobile and these households tend to be young-- would especially benefit. Households with high competence in searching for and locating an appropriate home and with time available for the legwork would also especially benefit.

Fundamentally, the lower commission in Britain may be the result of the fact that the purchaser has to do more work relative to the agent, than in Canada. Because information is more freely available in Britain, however, overall search costs of households may be no more than in Canada. In particular, in Britain, purchasers need to visit several agents (i.e. make several appointments) in order to view a variety of houses fitting their preferences), and it is not usual for agents to drive purchasers to view properties. At the same time, the purchaser is assisted in pre-selection by the extensive information easily and conveniently available from agents. Thus, one would expect the British searcher to view fewer properties in Canada, because of the greater opportunity for pre-selection. In contrast, traditionally, under the MLS system in Canada, searching households have had to visit agents in order to get information prior to deciding the properties to view, and the information is apparently not as great as that typically available in Britain.

The measure is successful in that the *total* transaction cost in Britain (excluding costs not so directly associated with the transaction, such as moving costs) are lower than real estate commissions alone in Canada. This point must be qualified by the possibility that search costs for purchasers, and selling costs for vendors, are greater in Britain than in Canada because of the difference in the systems. However, evidence suggests that search costs may not be much, if at all, greater in Britain than in Canada. U.K. (1998) in its survey finds that the median number of weeks spent in search before an "agreement" is reached, is ten, the same as the average duration of search found by Anglin (1997) in his investigation of the process in Windsor, Ontario.

Closest equivalent in Canada: past or present

There are likely inexorable forces pushing for a more efficient and less costly system of house sale in Canada. One force is an ever-increasing competitiveness among real estate brokers, appraisers, surveyors, lawyers, lenders, and others involved in servicing the purchase of a home. In part, heightened competitiveness is driven by the opportunities posed by the Internet to generate more profitable and less-costly ways of transacting business.

Currently, in Canada, increased competitiveness is evidenced in the pressure on brokerage commissions. Over the past several decades, real estate brokers in large urban centres across Canada have developed systems (MLS) for disseminating information about house listings and sales. Brokers bundle MLS in the package of services they provide to a client in return for a fee upon purchase/sale. Commissions were set at a standard rate of about 6% (versus a typical 5% commission for properties that are exclusive listings: that is, not MLS listed). MLS systems created an advantage for MLS participants (vis-a-vis non-participating brokers), but did not encourage strong competition in broker-

Table 15 Amounts (C\$) for selected items of transaction cost, England & Wales versus Canada

Components of cost	England & Wales		Canada Cost
	Median for respondents incurring cost (survey data)	Range of costs (expert opinion)	
Vendor expense			
Real estate agent fee			
Advertising	422		
Other	2,434		
Legal fee			
Transfer of title	828	706 to 2,400	
Other	576		
Purchaser expense			
Legal fee (ex. tax)	1,447		1,100
Mortgage origination fee			
Appraisal (valuation) (more if high-valued property)	422	240 to 360	150
Administration (arrangement)	706		
Broker/advisor	612		
Transaction tax (stamp duty)	2,539		2,000
Survey	706	240 to 1,440	1,000
Inspection			300

Notes. On British survey data: "other " real estate fees computed using reports only of respondents knowing the breakdown between advertisements and other fees; legal fees given here are the total of the medians for components [conveyancing (transfer of title), search fees, land registry, others] where these component medians relate only to respondents reporting non-zero expenditure for the components; the *median* value of homes sold by surveyed buyers is C\$156,000; the *median* value of homes sold by surveyed sellers is C\$146,000. On British expert opinions: the higher end of the legal fee range is usually associated with higher-valued property; the complexity of the transaction and its urgency also affect legal fees; the range of fees for surveys reflects the different nature of surveys, with the higher fees applying to full structural surveys. On Canadian expenses: the value of the home for which charges are given is not specified, but the value of the example home used earlier in the brochure is C\$182,000; transaction tax is called land transfer tax and will vary by province; the "survey" in Canada is narrower in focus than the British survey; the British "survey" includes what in Canada is called the inspection.

Source Canada data drawn from The First Time Home Buyer: Everything You Need to Know a part of The CIBC Home Planning Kit.

age fees. A recent ruling has determined that organizing bodies (in Toronto, the Toronto Real Estate Board) must give access to MLS to member brokers who do not charge the standard 6% fee. One such real estate firm in Toronto, Savvy, has been offering rates of just 3.5%; 2.5 percentage points to the selling agent and 1 percentage point to the listing agent. In Toronto, but apparently not outside Toronto, the typical multiple listing fee has now fallen to 5%, and the exclusive listing fee to 4%.

Advances in technology raise the broader question of whether MLS might itself become outmoded over time. Since, information on individual houses listed under MLS is now available on the WWW, and many agents give full information on their listings on the World-wide web (WWW), information is more readily available than before. The more "exclusive listing" properties on which information is readily available, the more potential buyers will be attracted to search in this market and so the more

attractive the exclusive listing option will be to vendors. Further, the easier it is for potential buyers to search, the less incentive there will be for them to use a buyer agent, the lower the sub-fee the "exclusive" agent will need to pay to buyer agents, and the lower will be the exclusive agent's fee.

Bank of Scotland's Shared Equity Ownership Scheme

In 1980, the (Conservative) Minister of Housing produced consultative papers that suggested for first-time buyers a scheme in which mortgagors paid a lower interest than normal in return for the building society or other mortgagee having an equity share. Building societies did not welcome this unequivocally and not many loans were made. The Bank of Scotland's Shared Appreciation Mortgage (SAM) is a scheme of this type, with the important difference that its principal market has not been first-time buyers. A more recent experiment with shared equity lending occurred when house prices slumped at the end of the 1980s and some private developers offered shared ownership to sell off excess inventory. In 1990 the developer, Regalian, offered its whole inventory in London and Southern England on a shared equity basis. The scheme was like the non-private schemes discussed above; purchasers purchased a part of the property, rented the remainder, with an option to purchase the entire equity later (Balchin, 1995, p. 40)

The Bank of Scotland in 1997 and early 1998 offered a shared appreciation mortgage (SAM). In one version, zero interest is charged in return for a relatively large share in the appreciation of the property. In a second version, a relatively low (in British terms) fixed interest rate is offered in return for a relatively more modest share in appreciation. David McDougall of the Bank of Scotland Mortgages reports that this mortgage, especially in the zero interest version was popular among elderly homeowners. It was withdrawn in early 1998 only because of insufficient funds. (Funds are raised through a special instrument, akin to a price option, sold on the bond market.) In late 1998 the number of people expressing an interest in obtaining a Bank of Scotland SAM was 300,000.

In version one, borrowers were able to borrow indefinitely, interest-free, an amount up to a maximum of 25% of the value of their property. In return the Bank receives a percentage of the appreciation equal to three times the loan-to-value ratio, e.g. if the mortgage loan were 15% of the value of the property, the Bank's share of the appreciation would be 45%. The amount permitted to be borrowed normally ranges between £15,000 and £125,000. This instrument was meant to appeal to cash-poor elderly homeowners who might otherwise either sell their home or take out a reverse mortgage in order to finance expensive repairs, other special large expenses or to finance ordinary living expenses.

In version two, borrowers were able to borrow indefinitely, up to a normal maximum of 75% of the value of their property, at an interest rate fixed at 5.99% (compared to British standard mortgage interest rates in 1997 of over 8%) with the Bank receiving a percentage of the appreciation equal to the loan-to-value ratio, e.g. if the loan were 70% of the property value the Bank would receive 70% of the appreciation. The amount permitted to be borrowed normally ranges between £15,000 and £375,000. This instrument would likely appeal to those with a large existing mortgage, and occasionally to purchasers with a large downpayment but a relatively low income.

Other mortgage lending conditions are generally the same in the two versions. First, the Bank does not share in any depreciation, so that the Bank is substantially protected in price downturns. Second, any existing mortgage must be paid off or converted to a second mortgage. Third, in the case of a mortgage-free property, the maximum loan is £100,000 and in addition it must be no more than 25% of property value in version one, and no more than 50% in version two. More generally, the debt against the property cannot rise by more than £100,000 as a result of SAM. The effect of the last rule along with the second rule is seen in an example: if existing debt against the property were £50,000 (\$120,000), the maximum amount of the SAM plus existing debt was £150,000 (\$360,000); also, if the SAM were version one, because of the £125,000 (\$300,000) maximum for the SAM, at least £25,000

(\$60,000) of the £150,000 (\$360,000) total would have to be in the form of a second mortgage. Fourth, the property must be owner-occupied. Valuations occur at many possible points: applying for the mortgage (yielding the base value), exiting (terminating the mortgage), borrowing additional funds from the Bank, partial repayment, alteration of property, damage to the property.

Under these SAMs, property valuations are carried out by the Bank's panel of independent appraisers. The base valuation is not subject to appeal. At exit, however, at the borrower's request, a second valuation will be obtained, using another appraiser from the Bank panel, and the lower of the valuations will be used. A partial repayment, of £10,000 or more may be made once a year, after the first year of the loan. This repayment will be applied pro rata to the mortgage and the shared appreciation. The Bank will consider additional lending on the property after the first year of the loan, at the usual variable mortgage interest rate. The property will not be revalued for alterations costing less than £10,000. For more costly alterations, the Bank will value the property before the alterations and afterwards, and the base value will rise by an amount equal to the change in valuation. The application fee is £500. Valuation fees are also paid by the borrower and vary according to the value of the property: the minimum is £140 for a property value of £75,000 and is one percent of property value for properties valued at £250,000 or more. The fee on repayment of the loan is £300, except that if the loan is paid within the first three years the fee is 1.5% of the initial amount, in version one, or three months interest in version two. Bank of Scotland sources indicate that they have not found inadequate property maintenance by the homeowner to be a problem.

Goals, targets, and barriers

A shared-equity mortgage, in the main, increases affordability, accessibility, and the sustainability of homeownership because of its suitability for purchasers with sufficient assets but insufficient income. The use of this kind of mortgage might be envisaged where a homeowner suffers a job loss because of downsizing. Suppose this person moves to a new job at another location, necessitating the sale of his or her home. Suppose the income of the new job is too low to make the monthly payment of a home at the new location affordable, although the sale of the original home yields sufficient funds for a substantial down payment. In this case, homeownership is inaccessible at the new location and the person has to become a renter. A shared-equity mortgage, by lowering the monthly payment, would allow such a person to access homeownership once again.

A second circumstance in which this kind of mortgage would increase affordability and hence accessibility is associated with divorce. The split of assets following divorce is apt to leave one or more partners with assets sufficient for a 25 per cent down payment, but with income insufficient for the monthly payment. One partner might find a conventional mortgage affordable after divorce, but the other partner might not. A shared-equity mortgage would increase accessibility to homeownership for the lower income partner. This example is of empirical importance. The incidence of moving from owning to renting has been found to be quite large, in US studies, with much of this associated with divorce (Clark and Dieleman, 1996, esp. Ch. 4). A shared equity mortgage would allow households who have moved from ownership to rental tenure to move back into homeownership.

The SAM is especially suitable for renters with a modest income who have been homeowners some time in the past, or who have otherwise acquired substantial assets, and do not expect to move soon. The SAM is not suitable for young, first-time homeowners, because they will often want to move fairly soon; this is especially true in Britain where transaction costs are low. The SAM reduces the buildup of equity and also cannot be transferred to the new home, so that homeowners wishing to move to another home will have to pay the repayment fee of three months interest and will have to amortize the hefty initial fees over a short period. The SAM has proved most popular in version one; it has been attractive to people who have lived in their home for many years and do not intend to buy another home. This has tended to increase the aggregate owner-occupancy rate because it has tended to keep elderly people in homeownership and out of rental tenure. It is not known how many of persons using it have been home purchasers.

To understand the fundamental nature of the SAM and the underlying basis for the level of the parameters in the Bank of Scotland mortgage, it is useful to use an economic concept, the real rate of interest. The real rate equals the nominal interest rate minus the expected rate of inflation. Assume that the nominal rate $=rn$, the real rate $=rr$ and the rate of inflation $=i$. Then $rn=rr+i$. Assume that the rate of rise of house prices equals i , the rate of inflation. This is the standard assumption used by economists in the analysis of SAM mortgages. In this case the Bank of Scotland SAM, version one (the one with zero interest) costs the homeowner $3i$ per year. If the rate of inflation is 3%, the loan, in effect, costs the borrower $3i=(3)(3)=9\%$. If the real interest rate for mortgage loans is 6% (an assumption that is in line with usual estimates for this real rate) the 9% cost to the borrower equals the nominal interest rate (since in this case $rr+i=6+3=9$). In other words, the Bank of Scotland's design for version one makes sense from the lender's perspective if (a) the rate of inflation is 3% or more, (b) on average over time, the rate of house price increase is no less than the rate of inflation and (c) real interest rates are 6% or less. Otherwise the scheme is too generous to borrowers. It can be seen that there is apt to be trouble raising funds for this mortgage if these assumptions are not realized. This may explain the Bank of Scotland's problems in 1998. Version one has a problematic design because in the formula setting the borrower's costs, the multiplier for i is set at 3, rather than varying according to market conditions. For example, if the rate of inflation is only 1.5% rather than 3%, the cost to the borrower is $(3)(1.5)=4.5\%$ while the nominal rate of interest is $6+1.5=7.5\%$, so the homeowner is paying too little. In version two of the Bank of Scotland SAM, the 5.99% interest SAM, the cost to the homeowner is (rounded up) $6\% + i$, which will be equal to the nominal interest rate so long as the real rate of interest is 6%. Unlike the case with version two, the cost to the homeowner equals the nominal rate of interest even when the rate of inflation falls below 3%.

Closest equivalent in Canada: past or present

There is no SAM mortgage available in the traditional mortgage lending market in Canada. The Bank of Scotland's SAM mortgage however may be regarded more generally as one which directly addresses the existence of inflation and the expectation of increases in the nominal price of houses as well as in nominal prices overall. A Canadian mortgage design which addressed the existence of inflation was the index-linked mortgage, which was used to finance co-operative housing in Canada in the 1980s and early 1990s. Nominal payments in this mortgage were variable, and were greater the higher the rate of inflation, just as is the case with the nominal cost to borrowers of the Bank of Scotland SAM (as long as the rate of inflation rises when the rate of increase of nominal house prices does).

Taxation of Sublet Income

In 1992, legislation was passed under which an owner-occupier could rent a room for up to £65 per week and pay no tax on this income (Balchin, 1995, p 118). The government's intent was, at least in part, to persuade the "overhoused" to rent out rooms in their houses. It is important to remember that in the UK a loss on rental income is not deductible against other income. Unlike a Canadian homeowner, the UK homeowner can not rent out rooms and get a business loss to deduct after taking into account the expenses including pro-rated mortgage interest. Currently, the tax-exempt income from lodgers where the home is otherwise owner-occupied is £4,250. While this makes homeownership more affordable in principle, its effect on accessibility in Britain is limited by the way that this rental income is treated by lenders. Indications from the Joseph Rowntree Foundation, a major funder of research in housing, and the Council of Mortgage Lenders, which covers 95 per cent of lenders, are that this income is not of interest to lenders, on the grounds that the advantage of the rental income would be offset by the possible damage caused by tenants. Further, in Britain qualification for a homeowner mortgage is usually based on the ratio of the mortgage principal to income, not the ratio of mortgage service to income. The use of this criterion for qualification is unsurprising in view of the great dominance of the variable rate mortgage in Britain. Under a variable rate mortgage the mortgage service amount is highly variable, so that the MSR is also highly variable and a borrower might easily qualify one month using the MSR criterion but not qualify a month later. Thus the possibility that rental

income might be deducted from mortgage service before computing the ratio of mortgage service to income is irrelevant, in most lending situations.

A Midland Bank source in the mortgage department of a regional office, consistent with the views of the Joseph Rowntree Foundation and the Council of Mortgage Lenders, indicated that this income would not usually be of interest to lenders, but conceded that it conceivably might make some difference for a marginal borrower (i.e. one who barely misses meeting the qualification criteria). The lack of interest by lenders in this income should be read in the context of the fact that British lenders for a long time had severe restrictions on owner-occupiers renting out their home because of their concern that security of tenure rules might make it impossible to terminate a tenancy. No evidence of any increase in the number of lodgers, following the introduction of this measure, has appeared in the Survey of English Housing.

Goals, targets, and barriers

Eliminating the tax paid on rental income derived from lodgers makes homeownership more affordable because it increases the net income of owners. It helps homeowners who wish to buy but can only afford payments for a small house, although they expect to be able to afford the payments for a larger house some time in the near future. With this scheme these people can buy now a larger house than they could otherwise afford and rent to lodgers for a few years, until they can afford mortgage payments unassisted by rental income. This scheme will also help owners ride out periods of job loss when they would have insufficient income to afford mortgage payments, without the aid of rental income. This scheme also provides an incentive for over-housed empty nesters to rent out part of their houses.

Closest equivalent in Canada: past or present

In Canada, homeowners who rent out part of their house must pay tax on the net income, but also, unlike in England, they are able to deduct a rental loss (except where created by depreciation) against employment income. In the early years of homeownership, when a household has a heavy mortgage interest burden, the likelihood is high that the pro rata expenses for tenants will be greater than the rental income they generate. Thus the homeowner will receive not only the rental income (as in England) but also a tax refund. Of course, in the later years of homeownership, in Canada a tax liability will be generated by tenants if rental income exceeds expenses, but in these later years the affordability problem for homeowners will be much less or indeed absent. Thus the disadvantage of this tax liability will tend to be greatly outweighed by the positive impact on the household of a tax refund in the early years of homeownership.

France

National Profile and Selected Mechanisms

National Profile

At over 57 million persons in 1996 (58.5 million according to just-released data from the 1999 Census), France is about twice the size of Canada. This is a result of modest growth over the postwar period; France's population went up 42% between 1946 and 1996, compared with an increase of over 100% in Canada. France's population is older on average because of declining birth rates and the absence of a bulging baby boom generation (as evidenced for Canada in 1996 among 30-49 year olds). Households in France are typically smaller: 2.48 persons a private dwelling (2.40 according to just-released data from the 1999 Census) compared to 2.62 for Canada. In France, 94% of all people in private dwellings are in a nuclear family (husband-wife or lone-parent) living alone, or are an unattached person living alone; the remaining 6% live in a shared arrangement. In contrast, only 84% of Canadians are an unattached person or in a nuclear family living alone. In these important respects, the demography of France differs from Canada.

Table 16 Total persons (thousands) in private dwellings by marital status, living arrangement and tenure, showing age of persons, France 1996

	Age of person									All ages
	Under 20	20-24	25-29	30-34	35-39	40-49	50-64	65-74	75 or older	
Total population	15,508	3,750	3,990	4,447	4,205	8,368	8,755	5,278	3,488	57,785
Married and living with spouse	51	943	2,542	3,489	3,404	6,826	7,011	3,619	1,615	29,499
Nuclear family living alone										
Rented	38	826	1,868	1,788	1,316	1,936	1,434	636	436	10,277
Owner-occupied	6	74	604	1,603	2,006	4,650	5,155	2,801	1,081	17,980
Other living arrangement										
Rented	2	20	29	47	33	76	98	52	21	379
Owner-occupied	5	23	41	51	49	164	324	130	77	863
Other persons										
Person living alone										
Rented	104	509	499	345	251	439	551	556	748	4,003
Owner-occupied	2	15	52	81	87	230	579	775	711	2,531
Nuclear family living alone										
Rented	6,679	659	273	237	209	374	165	45	24	8,665
Owner-occupied	7,906	1,332	432	195	145	296	204	65	54	10,628
Other living arrangement										
Rented	378	197	129	60	58	86	87	67	83	1,146
Owner-occupied	388	95	63	40	51	117	158	151	253	1,314

Source: Enquête logement 1996-1997, INSEE

France is home to about 23 million dwellings (excluding institutional and other collective accommodation). This stock of dwellings differs from that of Canada in important respects. For one, small dwellings (3 or fewer rooms) account for 39% of the stock in France. Even after allowing that France excludes kitchens in its enumeration, the comparable category in Canada (4 or fewer rooms) accounts for only 26% of our stock. The difference in dwelling size is even more marked if we focus on the owner-occupied stock. In France, small dwellings made up 21% of all owner-occupied dwellings, while large dwellings (7 or more rooms) account for only 12%. The comparable figures for Canada are 9% and 39% respectively. About 46% of the stock in France was built during the 1950s through 1970s. After the ravages of World War II and rent control, the housing stock of France was dilapidated, outdated, and damaged. Housing needs were further exacerbated by the inflow of French nationals

from Algeria in the early 1960s. A growing tide of new construction saw the level of completions (both subsidized and unsubsidized) rise steadily from 200 thousand units in 1953 to a peak of near 600 thousand units in 1978. After that, the rate of completions fell steadily, reaching about 250 thousand units by 1993. These volumes are similar to those for Canada on a per capita basis. This is astounding when we consider that population grew much less quickly in France than in Canada; the volume of constructions reflects substantial rebuilding of the stock. Consistent with this, housing investment in France is a relatively high percentage of GDP (6.1% between 1970 and 1992 in both France and Canada, versus just 3.5% for Britain) and of total investment (33% in Canada and 28% in France between 1970 and 1992, versus just 19% for Britain).

Table 17 Occupied private dwellings (thousands) by tenure and dwelling type, showing number of rooms, France, 1996

	Number of rooms in dwelling										All dwell
	1	2	3	4	5	6	7	8	9	10+	
All private occupied dwellings	1,372	2,863	4,928	5,911	4,347	2,279	968	380	143	94	23,286
Owner-occupied	118	626	1,951	3,418	3,210	1,957	827	337	122	79	12,645
House	30	234	1,180	2,683	2,887	1,844	791	326	119	73	10,168
Apartment	88	392	771	734	323	113	36	11	3	5	2,477
Rented	1,254	2,237	2,977	2,494	1,137	322	141	43	21	15	10,641
House	38	281	639	912	611	241	126	38	19	11	2,915
Apartment	1,216	1,956	2,339	1,582	526	81	15	5	2	4	7,726

Source: Enquête logement 1996-1997, INSEE

Note: Not counted as rooms are bathrooms, kitchens (if under 12m²), rooms used only for business purposes, vestibules, halls.

Homeownership rates, trends, and prospects

Homeownership is less common in France than in Canada. Only about 54% of all dwellings there are owner-occupied (versus 64% in Canada). Expressed differently, only 58% of the population of France live in owner-occupied accommodation (versus 70% in Canada). Canadian households appear to move into homeownership at a younger age, and more of them eventually become homeowners. Among couples aged 25-29 in France, only 24% are living alone (no one else present except their children) in homeownership: versus 46% for Canada. From these fragments, we can make a simple comparison between the two countries. In Canada, there is relatively more "doubling up": more individuals and/or nuclear families living in a shared arrangement. Typically, such "doubling up" happens in dwellings that are often larger and owner-occupied. In France, by contrast, individuals and nuclear families are more likely to live alone, and the households "spun off" (that is, the people who would otherwise lodge within a larger household in Canada) typically have low incomes and are more typically renters. Thus, the fact that France has fewer families and individuals sharing space means that there are relatively more households, fewer persons per household, and a higher incidence of renting.

Presently, the overall homeownership rate in France is stable, but it did rise during the 1980s. Up from about 33% in 1954, the rate of homeownership rose sharply to 51% in 1982, and then grew slowly to 54% in 1996. When asked, at the end of 1996, about their desired tenure, only 41% of would-be movers mentioned owning (down from 48% in 1984). As well, for the first time, the rate of second-homeownership (traditionally high in France) is no longer increasing. The cessation in the rise in homeownership is attributed mainly to the following.

Homeownership is linked to traditional family formation and the birth of children. Rising divorce and separation rates suggest that renting is becoming more commonplace. As well, families now tend to form later than before, delaying homeownership among young people. Finally, the decline in household size means less economies of scale in housing (thus higher per capita costs) which reinforces the difficulty in accessing mortgages (especially among households with only one breadwinner).

Unemployment and unemployment risk have been on the rise up to the end of 1999: especially for young adults. The rate of ownership is still increasing for older age groups; it is the younger generations that are not accessing homeownership. Since transaction costs are high (taxes alone are around 7 to 8%), increased job risks prevent people from buying when they know they will want or have to move. The factors at play are illustrated by the changing role of social housing in France. The social housing rental sector is important; 18% of households live in it. Ten years ago, households from all income levels would live in the social sector; some would then leave it to become homeowners. In recent years, the social sector population has become poorer and less mobile. The poor are no longer mainly the elderly; they are now increasingly the young and families with children.

The financial advantages of homeownership have declined. As in parts of Canada, parts of France (especially Paris) experienced a house price boom during the 1980s. In Paris, the boom ran from 1984 to 1990-91. The attraction of a substantial capital gains were enhanced by real interest rates that were initially quite low. When the price gains started to run out, and real interest rates rose substantially, buyers fled the housing market and house prices slumped. As in Canada and elsewhere, house prices have been slow to recover in the 1990s. In addition, positive real interest rates (as compared to negative real rates in the 1970s) make homeownership less attractive as a form of investment.

Special factors affecting homeownership

In France, housing policy traditionally has been more compassionate, idealistic, paternalistic, and interventionist than in Canada. While Canada has a substantial social housing sector, we have also relied on a competitive market in rental housing to accommodate modest-income households. In France, there has been less reliance on (and more regulation of) the private rental sector. France has a larger social housing sector, and has had a rich array of subsidy schemes to make rentals and homeownership more affordable for less-affluent households. Even more distinctive to France are "voluntary" schemes wherein contributors can enable directly the provision of better housing opportunities to poor households.

Let us look first at the rental sector in France. In the 1950s and 1960s, the government's social housing agency, *Habitations à loyers modérés* (HLM), constructed large estates of subsidized rental housing (traditional public housing) in new suburbs around Paris and other cities. Similar projects were undertaken in Canada at the time, although generally at a smaller scale. As in Canada, these projects led to social segregation. In France, these projects were also to become the sites of urban riots in the 1980s. Designed to provide new housing inexpensively, there was also much experimentation of new construction techniques. Partly as a result of this, some of these public housing projects quickly became dilapidated. At the same time, rents in the private sector had been controlled as far back as 1914. With easing of these stringent controls, the private rental sector now works better than it had. Security of tenure remains: renters are protected against eviction; there is no eviction except to sell or self-occupy; evictions for default in rent payment are rare, and recently made even more difficult. Rents are controlled for sitting tenants; the annual increase is tied to a construction cost price index; landlords are nearly free to change rent when the tenant changes (except in Paris). For households, this means a more-plentiful supply of rental units. There is a free market for furnished housing, however it is small. In the 1970s, the emphasis in policy shifted to subsidies to enable low-income home-ownership. The stock of public housing continued to increase: 3.4 HLM and other social housing units in 1984 and 4.1 million in 1996. HLM units were 17% of all dwellings in France by 1993, and almost 46% of all rental units by 1996. Despite the construction of this assisted rental housing, the stock of housing overall in France became increasingly owner-occupied.

Taxation of estate and capital gains on housing is also important here. Canada has capital gains arising from the deemed disposition of assets (other than principal place of residence) upon death. France, on the other hand, has an inheritance tax, and the applicable rate depends on the family connection. Above the first FF 300,000 tax-free, the marginal rate is between 5 and 40% for a spouse, a parent or a child. Above FF 10,000, the rate is between 35% and 45% for a brother, 55% for other relatives, 60% for non-relatives. After the Second World War, the government encouraged new construction by promising

an exemption from estate duty for new homes. This exemption was ended in the early 1980s, just as many houses were about to be transferred. Taxpayers are exempt from capital gains if a dwelling is lived in for five years (less generous than Canada), and after 22 years for any other housing property (more generous than in Canada).

France operates several programs that provide housing subsidies to households of modest income. This includes the allocation logement (AL), épargne logement (EL), and prêt à taux zéro (PTZ) programs, la participation des employeurs à l'effort de construction (PEEC), Livret A accounts, and the mortgage rescue scheme of the late 1980s programs all of which have assisted low-income homeowners. As well, until recently, the government provided mortgage interest deductibility and abated some transfer, property, and/or sales tax for home purchasers. Also of help in improving access to home ownership have been experimentation within the private sector in terms of shared-equity lending and other divisions of ownership rights. As well, there has been experimentation with mortgage registration system (notably, the caution mutuelle) to help reduce the cost of property transactions. Finally, the government has introduced a tax specifically on vacant housing in an effort encourage turnover and better use of the stock, thus hoping to improve access to home ownership.

Emerging trends in policy and market mechanisms

While housing policy in France has evolved over the years, it has not undergone the abrupt shift that characterized British housing policy. As in Canada, the impetus in France has been the need to contain government expenditure, in part by better targeting of subsidies. In addition, the exigencies of integration within the European Union and mortgage securitization have also forced changes to the operation of financial institutions. As in other countries, France had regulated housing finance. This regulation evolved over the 1980s and 1990s under the pressures of inflation, interest-rate volatility, and globalization. For example, France passed legislation enabling mortgage securitization only in 1988. Before that, the secondary mortgage market was largely limited to mortgage bonds issued by a monopoly, Crédit Foncier de France. The net effect of this evolution was to move France toward integration of housing finance within competitive, market-driven financial systems, although France still lags Canada here. Housing policy is presently centralized even though local authorities are partners. Some suggest that decentralization would help to follow more closely local housing markets and be more efficient.

In conjunction with increasing competition among financial institutions, mortgage securitization has also led to changes in the way that mortgages are being approved. As in Canada, banks now widely use credit scoring to standardize mortgages so that they can be better assigned to risk pools. As a result, lenders have increasingly been asking marginal borrowers to take out costly insurance to cover the risk of unemployment.

Public policy is heading in a new direction: how to make mortgages less prone to default and loss. In one such initiative, a subsidized fund has been created to insure defaulting mortgagors. In case of financial difficulties, half of the cost of the monthly mortgage payment is covered by the fund for up to one year. The period of repayment is lengthened by half a year to offset. This loan acts as a 'small PTZ' over a period of one year. The cost is expected to be under FF 1 billion once fully operational. It is financed by FGAS (Fonds de garantie pour l'accession sociale), a fund jointly funded by credit agencies (banks) who distribute aid under a program entitled Prêt à l'accession sociale (PAS) and the government. There has also been discussion among bankers on the use of the existing unemployment insurance (Assurance perte d'emploi) to provide benefits for mortgagors.

At present, public concern focuses more on affordable rental housing than on homeownership. A 1990 law (Loi Besson) mentions the right to housing. Some local social measures have been taken: assistance to access rental housing (moving costs), to pay rents by temporary loans or subsidies, assistance to private charities offering temporary shelters. There is talk of an intermediate rental sector offering nine years leases, at low prices, with some tax exemption for the landlord and insurance for rent payments. The increase in the quality of housing and the rehabilitation of historic low-quality housing has destroyed the so-called de facto (private) social sector. At the same time, public policy helped

private landlords to shift from investment in existing housing to investment in new construction via differentiated taxation. Measures have been taken (from 1996 to 1998) to encourage private landlords, especially those constructing new houses and renting them for a minimum of nine years. The cost of such construction can be amortized over 24 years. Depreciation-induced losses can be claimed against other income for ten years instead of the usual five. There is also a low subsidized interest rate available for those building social rental housing. The idea that households make choices is not fully understood; the thought that a benevolent government knows best still lingers. Thus decisions are taken to build shelters where homeless persons do not want to go, or to tax vacant housing, and at the same time to make more-stringent conditions for the eviction of renters.

Housing policy currently takes the form of (1) direct personal housing allowances and (2) assistance linked to constructing, renovating or buying. Over the years, France has shifted from the second to the first form of assistance. Personal housing allowances are now 58% of the total public spending on housing; one quarter of all households are assisted. However the latest measure, a zero interest loan started in 1996, is not a personal allowance but instead is linked to building or buying. Public assistance for housing alone is about 1.5% of GDP (as of 1998), some 5,652 F per household. Even where homeowners are concerned, much of the assistance has been for new construction, rather than for buying existing houses. In such schemes, poor owners often have to purchase expensive new houses to get assistance. As a consequence, the really modest cannot afford the construction and the not-so-modest get most of the governmental assistance. Locally you can also see new buildings under construction when older (good) ones do not find a purchaser. Despite growing awareness of the distortion, this is still the case; for instance, the new zero interest (PTZ) loan is mainly for new buildings.

Despite the fact that France has a lower homeownership rate than Canada overall, a number of mechanisms have been employed there that might be used to improve access to home ownership in Canada. What follows is a list of these.

- *Épargne logement (EL)*. This scheme (not means-tested) is a home saving account that purchases an option to a mortgage downstream. Interest on the savings is tax-free and subsidies are provided to successful savers. For their part, banks may use EL deposits only to fund mortgages.
- *Prêt à taux zero(PTZ)*. This is a zero-interest mortgage loan program subsidized by the government for which repayment may be delayed up to 16 years according to income.
- *Prêt conventionné(PC)*. This is a preferred-rate mortgage loan, made by banks or financial institutions under contract to the government. Although dwellings must meet minimum norms for size and be below ceiling prices, PC is not means-tested.
- *La participation des employeurs à l'effort de construction(PEEC)*. Begun in the 1940s as a voluntary initiative, the "One Percent" program is the participation of employers to the construction effort. Made mandatory in 1953 for nonagricultural firms with 10 or more employees, the tax now is 0.95% of wages. In 1999, PEEC taxes was collected from 173,000 businesses accounting for 43% of all employed persons. This tax revenue is spent by the collecting organizations on low interest loans to social housing agencies, and more recently by the national government to finance PTZ.
- *Allocation logement(AL)*. Borrowing homeowners may qualify for AL (allocation logement, housing benefit). AL was created in 1977 for low-income homeowners with mortgages. However, some banks are reluctant to include such allowances in household income in assessing ability to afford, feeling that these may change or disappear. Still this assistance is important and a kind of income insurance for mortgaged homebuyers.
- *Abatement of transfer/property/sales taxes*. Homeowners face high transaction costs when they want to move. The transaction costs include taxes (7 to 8%), agent's fee, and moving costs. Those high taxes distort the market in favour of new construction: typically households in a new house pay no transfer tax and are exempt from property tax for 2 years.

- *Mortgage interest deduction.* Until recently, 25% of interest payments were deductible from income tax, with limits more favorable for new construction and for families with children. When benefiting from a PTZ, one could not deduct interest from other housing loans. This deduction has been removed for new mortgages in 1998. The 25% of interest payments on mortgages that pre-date 1998 continue to be deductible.
- *Shared-equity or shared appreciation.* This is a mortgage that grants lender some residual interest in value of property. In addition, property purchasers may choose to create a Société Civile Immobilière (SCI), a legal equity which would then own the dwelling. The SCI in turn is owned by its shareholders—perhaps the husband, wife, children, and/or parents—who then are able share in any capital gains downstream. Although an uncommon institution in practice, SCI also makes it easier to transfer in the sense that you can sell part of the equity more easily than part of the house. In France, there is also a practice called 'indivision' wherein the inheriting children own the property jointly, sharing the expenses or benefits.
- *Other divisions of ownership rights.* Property rights are separated into two parts: *usus* (usufruct or life interest, the right to use the house or receive its rent as long as one lives) and *nue propriété* (expectant interest). The two are automatically reunited at the death of the owner of the usufruct. The separation happens only in case of family transfer, after a death or after an *inter vivos* gift. It is of relevance when looking closely at what happens to houses after the death of a spouse. Usually the surviving spouse has the *usus* and the children have the expectant interest. *Viager* (selling of the expectant interest in exchange for life rent and capital) is not widely used; this is similar to a reverse mortgage.
- *Mortgage rescue.* At the end of the 1980s, many homeowners had borrowed at fixed rates and faced higher repayment charges upon mortgage renewal, or had a member of the household become unemployed. As well, house prices dropped: in some cases, enough to create negative equity. In one solution, the homeowner transfers ownership of the property to a lending institution, or social sector rental institution, with an option to repurchase. The household then continues to occupy the dwelling at a rent lower than the mortgage payment. Such rescues have been initiated for only 2,000 households in 9 years. This rescue program was found to be costly and complex, involving many partners, but it did "save" some families from disruption.
- *Taxation of vacant housing.* Taxation is intended to encourage landlords to rent. It may also encourage them to sell. Only private landlords are affected. A house is taxed if vacant for more than two years, if the vacancy is without good reason, and if the house is in a town of 200,000 inhabitants or more. The tax is 10% of the rent for the first year, 12.5% the second year, and 15% thereafter.
- *Caution mutuelle.* A mortgage is typically registered on title to ensure that it is the priority claim in case of default. To avoid the costs of registration, an alternative called "caution mutuelle" is offered by some companies. In this system, the mortgage is not registered, but the provider guarantees no priority claim. The risk is shared by the household in a higher upfront payment that is partially refundable (typically 80% or more) in the end.

Of these, the two chosen for further study in this project are the EL home savings program and the PTZ loan program. Home saving accounts and assisted mortgages are two ways of improving access to homeownership. They are distinct and not always connected. Home saving accounts such as *épargne logement* (EL) are a way to help any person willing to save for housing. Assisted mortgages (and in particular PTZ which is selected here) are means-tested and they do not address the saving phase but the mortgage itself.

Home Savings Account (EL)

Épargne logement (hereinafter, the Plan) began in 1965 as *Compte d'épargne logement* (CEL), and was augmented in 1969 to include *Plan d'épargne logement* (PEL). Put succinctly, the Plan converts

preliminary saving into an option to borrow downstream at a pre-set mortgage rate. This option may or may not turn out to be worthwhile depending on how mortgage rates change over the savings period. In practice, only about a quarter of households with Plans do borrow for housing. In the Plan, the initial saving stage is made more attractive because interest earned is tax-free (that is, saving is effectively further subsidized to the extent of the tax expenditure) and Plan deposits themselves are guaranteed. The household can use its Plan purely as a saving vehicle: the interest rate is low but tax-free. Because the consumer need not take out a mortgage, there is no risk should the borrowing conditions under the Plan prove to be unattractive. The savings can also be used directly as a downpayment. The *Journal Officiel* of August, 10, 1999 (on the reform of *Sociétés de Crédit Foncier*) reports that downpayment, normally a minimum of 10% of house price (excluding taxes and fees), can be as low as 5% if the downpayment comes from funds saved under the Plan (*Décret n° 99-710, application de la loi 99-532 du 25 juin 1999*). At the end of the saving phase, the person may receive a further subsidy in the form of a completion bonus and has a right to borrow at a fixed, predetermined rate. In a PEL Plan, the bonus obtains even if the Plan holder does not choose to borrow for a housing investment. In a CEL Plan, the Plan holder must borrow for housing in order to get the bonus. Under the Plan, the maximum size of mortgage is tied to the Plan holder's accumulated saving. The Plan can also be used to get a loan for housing (including a loan for major repair, extension, parking place, garage, new secondary housing, major repair in a second home, investment housing, SCPI).

Individuals are each permitted only one PEL and/or one CEL Plan at a time. However over one's lifetime a person may have a succession of PEL and CEL Plans. However, one cannot have a PEL Plan in one bank and CEL in another; they have to be in the same bank. Plan holders can assign the right to borrow to close family members (provided that the assignees themselves have had a CEL or PEL for at least one year). Participants can piggyback Plans within a family on a single loan (provided that the maximum mortgage amount is not exceeded). Alternatively, participants may give the right to borrow to another family member; PEL participants must pass the bonus at the same time, since it goes with the mortgage. In other words, when the amount of the mortgage is determined, the assigned interests may include—beside the individual's own rights—those of a spouse, parents, children, uncles, aunts, nieces, nephews, brothers, and sisters of the individual and spouse.

The government sets Plan conditions, and these change regularly with economic conditions. Once a CEL or PEL Plan is signed, the interest and mortgage rates are fixed, so there are different vintages of PEL/CEL Plans with different rates. Against a backdrop of declining mortgage rates from the mid-1980s to late 1990s, interest rates under the Plan (both for savings and mortgages) have gone down. In February 1994, the interest paid on CEL deposits, which had been 2.75%, fell to 2.25%. They then dropped to the current rate in June 1998. Similarly, in February 1994, the interest paid on PEL deposits, which had been 6%, fell to 5.25%. The rate paid to depositors was further reduced to 4.25% (in January 1997) and then to 2.9% (in June 1998). At present, the ratio of mortgage interest to savings interest is 1.5 for CEL (2.5 for PEL). That is, if your savings earn a total of FF 1,000 interest, you may borrow so that your total mortgage interest during repayment is FF 1,500 in case of CEL (FF 2,500 for PEL). This limitation means that the maximum Plan loan shrinks as the savings interest rate declines. The current conditions are shown in the Table below.

Why have two kinds of Plans? Although it has a low interest rate (2%), CEL is the more flexible of the two because households may borrow after just 18 months at a good rate (3.5%). Because of its lower borrowing limit, CEL is better suited for buying a smaller unit (e.g., an apartment) or financing major repair. PEL loans carry a higher interest rate, but the larger limit permits purchase of a larger dwelling. Another difference between the two plans is that CEL is completely flexible whereas PEL is a contract. CEL Plans are flexible; households may withdraw from them at any time. In contrast, PEL Plans are contracts. Should a person withdraw their capital prematurely, interest is re-computed using the lower CEL rates; after two years the only penalty is that the completion bonus is lost. Savers can also convert a PEL plan into a CEL. In a CEL plan, one may borrow after just 18 months at a good rate (3.5%). In either case, the mortgages available under the Plans are not large; they are akin to a second mortgage. Some insight can be gained from the last French Housing Survey (1996-1997). Among households holding mortgages at the time of the survey, the average number of loans was 2.09 and the

mean mortgage was FF 430,000. Among those loans, 33% were Plan mortgages. Thus, the Plans presently play an important, but not large, role in housing finance.

Table 18 Epargne logement plan conditions and terms, 1999.

	CEL	PEL
Saving		
Minimum duration (years)	1.5	4 to 5
Minimum initial deposit	2,000	1,500
Minimum monthly installment	500	300
Maximum amount saved	100,000	400,000
Interest rate paid (%)	2	2.9
Maximum completion bonus	7,500*	10,000*
Borrowing		
Maximum mortgage**	150,000	600,000
Mortgage rate*** (%)	3.5	4.6
Length (in years)	2 to 15	2 to 15

NOTES * Calculated as 5/9 of accumulated interests for CEL, 100% of accumulated interest by person in the household for PEL. The bonus is extended by 10% per person, to a maximum of FF 1,000 for PEL.

** Total interest on the mortgage equals total accumulated interest times 1.5 for CEL or 2.5 for PEL.

*** Insurance excluded.

Source: Prepared by A. Laferrère.

Table 19 Mortgages held by mortgagor households, France, 1996.

Type of loan held	PAP	PC or PAS	EL	Market sector loan	Other social loan	Family and other	All loans held	Mean number of loans	Mean total amount of loans (FF)
	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
PAP	42	-	17	12	28	1	100	2.41	468,000
PC or PAS	-	42	24	11	22	1	100	2.38	444,000
Other only	-	-	45	34	14	6	100	1.86	411,000
All mortgagor households	10	10	33	23	20	4	100	2.09	430,000

Source: Enquête Logement 1996-1997, INSEE.

The Plan has become a popular way to save: FF 1.2 trillion were on deposit at the end of 1998, FF 1.35 trillion are projected for the end of 1999. In France, regular checking accounts are not interest-bearing by law; thus the popularity of both Livret A (savings) and Plan accounts which each earn interest tax-free and can be opened at any bank. The funds deposited in Livret A are invested in social rental housing construction. In 1998, 60% of households had an account under Livret A, and 52% had a Plan, according to INSEE (Enquête Patrimoine 1997-1998). Young households have Plans to build up a downpayment for housing and for the attached future right to borrow (49% of 30-39 year olds hold one). Older households use the Plan for savings generally, but are also attracted by possibility of being able to borrow on behalf a relative: e.g., child, or grandchild. Presently, 25% of persons aged 70 years old or older hold a Plan account.

Table 20 Percentage of households in an age group who hold specific type of asset, France, 1998.

Age of head	PEL (%)	CEL (%)	Livret A (%)	Primary home (%)	Secondary home (%)	Other housing (%)
Under 30	36	14	50	11	2	3
30-39	40	23	61	42	3	8
40-49	37	23	58	61	7	13
50-59	41	20	59	71	13	21
60-69	34	11	60	70	11	16
70 or older	22	7	67	58	9	12
All households	35	17	60	54	8	12

Source: Enquête Patrimoine 1998, INSEE

Plan accounts are available from a variety of eligible financial institutions. At present, about three-quarters of the funds are held by banks, one quarter by caisses d'épargne. For the financial institutions, the Plan is a cheap source of funds. Ideally, these institutions might prefer to raise funds by an even less-costly means: perhaps zero-interest chequing accounts. However, competition for customers leads them to participate in the Plan. The institutions participate because the place where one has a Plan is usually where one has one's current account. However, the Plan poses several risks for financial institutions. One risk arises because of the segregation of funds. Plan deposits can only be used by the institution to finance housing construction. The institution might prefer to take in Plan deposits and then make (more) profit loaning the funds elsewhere. After all, since the interest rates on Plan mortgages are low, presumably there are more-profitable uses for the funds (adjusted for risk) elsewhere. But this is not permitted. The second risk is that institutions that accept Plan holders must be prepared to give them a mortgage downstream (regardless of the level of uncommitted Plan funds currently on deposit). A third risk arises from the fact that the government sets the interest rate on Plan accounts, rather than the institution itself.

The financial institution can commit Plan funds to housing investment either directly or indirectly. The direct use of Plan funds is a mortgage loan to a Plan holder. About 40% of the amount saved (of more than FF 800 billion), are used in this way. As of 1979, institutions are permitted to commit the remaining funds to prêts conventionnés or prêts hypothécaires that finance the primary house of a household, to a loan to finance energy saving in homes, or to mortgage bonds issued by Crédit Foncier. Currently, institutions pay interest at a rate of 2.9 % on PEL deposits and give housing mortgages at 4.6 %.

The share of new mortgage lending in France that is under the Plan has increased. PEL mortgages were 26% (by value) of all new mortgages originated in 1992, up from 8% in 1984. As well, the uses to which CEL/PEL mortgages have been put have changed over the years. In 1992, for example, purchases of new housing accounted for under one-quarter of all PEL mortgagee originations: down from over one-half in 1984. Increasingly, PEL loans came to be used for re-sales and home improvements.

Table 21 Household mortgage loans from PEL accounts in FF billion

	1984	1988	1992
Purchase of new housing	1.9	12.3	13.8
Purchase of re-sale housing	1.2	23.0	29.4
Repairs and additions	0.6	13.0	16.8
All PEL-based borrowing	3.7	48.3	60.0
As a percentage of new mortgages	7.7	19.5	25.9

Source: Les Notes bleues de Bercy, Bulletin trimestriel de la Banque de France; quoted in Henri Heugas-Darraspen, p.92.

Goals, targets, and barriers

The stated purpose of the Plan is "to provide housing loans to persons who previously saved for this purpose and use this saving to finance their first home". Of the two initial aims, providing mortgages and encouraging saving for housing, the second purpose has become less important for two reasons. There is no longer an acute shortage in mortgages, and the below market interest rate has become less interesting with the decline in interest rates over the 1990s.

What barriers to homeownership might be addressed by the Plan? As this program improves access to homeownership among young homebuyers through four distinct impacts, the barriers being addressed are correspondingly different.

The Plan generates a low-cost pool of funds (the deposits of future homebuyers) that banks make available in the form of mortgages to current-day homebuyers. As such, the mechanism reduces the barrier represented by high mortgage interest costs. The target group here would be households at the MSR limit. Note that this inherently involves a "special circuit" of capital restricted to housing. The implication here is that, if indeed the Plan is effective, it will shrink the capital available for other kinds of investment in favour of housing even if housing investment has a poor rate-of-return. From an efficiency perspective, the Plan distorts capital market allocation.

By having a Plan but not using it to take out a mortgage of one's own, non-homebuyers have a mechanism to help subsidize directly relatives who will buy a home in the future and indirectly others who buy a home today. In this way, the mechanism helps increase the pool of funds available for mortgage lending. The target group in this case again consists of households (particularly relatives) at the MSR limit.

The Plan is a scheme of enforced saving that helps discipline or educate would-be homebuyers. As such, the barrier addressed is the sense among potential homebuyers that they will not be able to withstand the travails of mortgage repayment. In this sense, the Plan targets potential homebuyers who are uncertain about their own commitment to the travails of mortgage repayment.

The Plan provides credit-worthiness information to would-be lenders by telling them about them about the ability of potential customers to make and keep to a financial plan. As such, the barrier addressed is the absence of good information that causes wary lenders to shie away from marginal borrowers. Here, the target is the marginal mortgage applicant who the bank might otherwise not know to be a good credit risk. This has the potential to improve access among credit-damaged customers.

The Plan is not without cost to the government. Although no data are available on the cost of administering the Plan, the cost of administering FF 73 billion in personal housing subsidies for 1996 was only 2.6%. Presumably the cost of administering the Plans was a similar percentage. In 1996, the subsidies paid totaled as follows.

- *Tax expenditure on Plan savings interest.* FF 6.700 billion. This amount is estimated. As always with income tax breaks, the incentive is higher for higher incomes. In France, half of all households do not pay any income tax.
- *Completion bonus.* FF 6.228 billion: of this, FF 3.365 billion was paid to PEL plan holders who did not ask for a mortgage and FF 2.863 billion to CEL plan holders (mortgage required) and PEL plan holders who asked for a mortgage. Plan bonuses are managed by Crédit Foncier, on behalf of the State. Adjusted for inflation, the amount of the part of the Plan bonus paid under CEL has been stable for five years.

Table 22 Annual cost of completion bonuses under épargne Logement (part of bonus allocated to housing investment) in 1984 FF billion, France, 1984-1996.

Year	Amount
1984	2.4
1990	3.4
1991	3.4
1992	2.5
1993	1.9
1994	2.2
1995	1.7
1996	2.1

Source: Compte du Logement 1998, tables 6.11, p.112.

In addition, there is the distortion that arises in capital markets to the extent that Plan mortgages are made at lower interest rates than conventional mortgages. Another way to see this is as the advantage conferred on housing producers. In 1996, this interest cost difference totaled FF 2.067 billion.

Closest equivalent in Canada: past or present

The closest Canadian equivalent to an EL Plan would have been the federal RHOSP scheme (begun in 1974 and closed in 1985). Under that scheme, taxpayers could shelter income each year to reduce their income tax by up to C\$ 1,000 annually; more generous than the French scheme, but without the completion bonus. The interest earned in an RHOSP account was also tax-free provided that these funds were eventually used for the purchase of an owned home. The RHOSP program did have an effect. In an empirical study of this program, Engelhardt (1997) concludes that RHOSPs increased the rate of transition to owning among young renter households by about 20 percent. Subsequently, some provinces introduced their own HOSP schemes (e.g., Ontario and Nova Scotia) that provide tax credits for individuals saving for home purchase. These schemes are unlike the EL Plan, however, in that HOSP deposit funds are not segregated (banks are free to invest these deposits as they see fit) and the HOSP holder is not given an option to a mortgage downstream.

Interest-free Loan (PTZ)

The national government has funded numerous assisted mortgage schemes in France over the years that provide means-tested credit at below-market rates to targeted households. Depending on community size (linked to the price of land), level of income, and family composition, eligible households may access a specific type of assisted mortgage. Two of these, PAP and PC, were enacted in 1977 after the level of government intervention in housing was found wanting in the Rapport Barre. That report argued that although postwar reconstruction had been successful in rebuilding the stock, the focus should now be on the quality (rather than quantity) of housing, desegregation, better targeting of housing assistance, and more reliance on the market. The report argued for a shift from subsidies for construction to subsidies for people. However subsidies to construction remained, as evidenced by PAP and PC. As PAP—and now PTZ—goes with APL (welfare assistance) they may indirectly finance a better quality of construction.

The incomes of PAP recipients were to be below some maximum that depended on community size and family composition. For example income was to be not more than 2.6 times the minimum wage for a couple with no children, 3.7 times the minimum wage for a couple with two children (active spouse, zone II), and 6 times the minimum wage for a couple with 4 children (active spouse, Paris area). As used here, "income" is as reported on income tax returns of year n-2 (thus a potential problem for young households who two years before applying for PTZ were living with their parents and had no income tax return. This problem existed with PAP but is more acute with PTZ owing to its success among young people). The minimum downpayment was to be 10% with the loan below a specified level which was a function of the zone and household composition. The house had to meet certain criteria of floor area (dependent on household type) and quality.

As the attraction of PAP was declining at the end of the 1980s, PTZ was created to revive access to homeownership among low-income households. PTZ has replaced PAP since October 1995. In 1996 most of the funds went to PTZ as PAP was wound down. In that year alone, FF 4 billion went to PTZ, for a cumulative total of FF 12.5 billion. There were 110,000 new PTZ loans (totaling FF 6.4 billion) in 1997 and 123,000 loans (totaling FF 7.25 billion) are expected in 1998. PTZ cannot be taken along with PAP, nor with any other measure which subsidizes housing construction (such as reduced VAT on land, reduced property tax, interest deduction). The loan cannot exceed one third (initially 50%) of the other loan(s) for the same housing operation which length is more than two years. In a typical project financed with a PTZ loan in 1996, PTZ amounted to 17% of the cost of the project, the downpayment was 21%, the main mortgage was 51%, and other mortgage was 11% (source SGFGAS). The loan cannot exceed 20% of the cost of the project; this cost is limited by a ceiling depending on region and family composition as follows. The annual income thresholds at the end of 1997 were as follows (in FF). They are higher than the former PAP maximums.

Table 23 Income thresholds for PTZ participants, France, 1997.

	Persons in household					
	1 (FF)	2 (FF)	3 (FF)	4 (FF)	5 (FF)	6 or more (FF)
(a) Maximum annual income of participants (1)						
Ile-de-France	145,000	186,400	207,100	227,800	248,500	
Rest of France	124,300	165,700	186,400	207,100	227,800	
(b) Maximum monthly cost of project						
Ile-de-France	500	500	750	800	850	900
Rest of France	350	500	550	600	650	700
(c) Maximum loan amount (1)						
Ile-de-France	100,000	140,000	150,000	160,000	180,000	
Rest of France	70,300	100,000	110,000	120,000	140,000	

Note: (1) Amount shown for "5" persons are for "5 or more".

Source: Assembled by A. Laferrère.

The conditions for repayment of PTZ depend on household income. Up to two repayment periods are defined as are the proportions of the loan that must be repaid in each period. For the low-income group, there is no repayment in the first period. The length of this first period is adjusted quarterly depending on the treasury bill rate (taux de rendement des emprunts d'Etat) so that the cost of financing to the government is always a fixed amount. This first period cannot exceed 15 years (initially 17 years). The current conditions are as follows.

Table 24 Repayment conditions for PTZ loans, France, 1999.

Income range	First period	Amount repaid	Second period	Amount repaid
Under FF 82,900	15	0	4	100
82,900-103,600	15	25	3	75
103,600-124,300	15	50	2	50
124,300-145,000	15	100		
145,000-165,700	13	100		
165,700-186,400	10	100		
Above FF 186,400	7	100		

Source: Assembled by A. Laferrère.

To institutions that participate in the PTZ, the government pays a subsidy equal to the interest which lenders do not get from the borrowers. The borrowers repay only the capital, and that after a delay which varies with their income. The subsidy is calculated from the rate of interest on State loans

(obligations d'Etat) plus a spread to cover costs and risk, thus implicitly on the opportunity cost of a riskless investment (rather than on the basis of interest rates and management costs of the PTZ).

The present value of the subsidy is computed and paid in two installments: 50% immediately when the loan is made, and 50% one year after. The PTZ program is costly. In 1996 alone, the government paid almost FF 4.1 billion in interest subsidies. As a result, the program has been restricted in many ways since it was first introduced. Currently, it is now restricted to first-time buyers. Second, the decline in mortgage rates, which was to be proxied by a delayed schedule of repayment of the capital, is no longer the case. Repayment rules are now frozen. Third, PTZ is restricted to newly-built houses or to re-sale homes with at least 35% worth of repair. The following tables show the evolution of the funds devoted to PAP/PTZ.

Table 25 Evolution of the cost of PAP and PTZ (in 1984 FF billion)

Year	Amount
1984	5.4
1985	6.7
1986	7.0
1987	7.0
1988	5.8
1989	6.4
1990	5.2
1991	5.2
1992	4.7
1993	3.3
1994	3.0
1995	3.3
1996	5.5

Source: Compte du Logement 1998, tables 6.7, p.109.

Goals, targets, and barriers

The barrier addressed by assisted mortgages is the credit constraint. Those types of mortgages are to help individuals get a mortgage who would not get it through the usual market procedures: either because their stream of income is too low to meet future interest and capital payment (income constraint) or their downpayment is too low to get a loan (wealth constraint). PTZ is a special assisted mortgage which addresses the income constraint: it is a loan with a zero rate of interest. Only the capital is paid back: this alleviates the mortgage burden. Which is more, the repayment begins after a delay, so more time is given to build up savings. Unfortunately, the household may well be left with the false impression that the loan is part of the downpayment.

In an inflationary environment, consumers were happy with subsidized loans. After all, the currency was worth less come the time the loan was to be repaid. In an environment of lower growth in real wages and higher real interest rates, the subsidized loans (many PAP were graduated payment schemes) gradually became less attractive than PC, which in turn became less attractive than the free market loans as the market rate of interest declined. In 1993, PAS was created, which extends the right to borrow for re-sale housing (PAP was only for new construction); then in 1995, PTZ was created. Originally a monopoly of Crédit Foncier de France, PTZ is now distributed by all the banks. The idea of PTZ was to be 'the grandmother's loan', a small family loan, that you do not repay immediately, and which costs nothing in interest. In contrast to PAP, PTZ is available from any credit institution, and the national government does not set any limit on the number of PTZ loans annually.

Another criticism is that PTZ favours new construction. The aim is not as much owner-occupancy for its own sake, as construction and its effect on the whole economy. As before with PAP, the poorest households are encouraged to build new houses, thus further and further away from city centers, without always assessing truly the future cost of transportation or local public goods, when second-

hand houses could have been available and cheaper. This process also favour segregation of poor households, all building in the same areas.

Closest equivalent in Canada: past or present

In Canada, the closest equivalent to PTZ is the federal government's Home Buyers Plan (HBP) that permits taxpayers to borrow up to C\$ 20,000 from their Registered Retirement Savings Plan (RRSP) to buy or build a qualifying home. The home must be a housing unit in Canada that is to be occupied as the taxpayer's principal place of residence, and is to be occupied by a first-time home buyer. The dwelling can be single-detached, semi-detached, a townhouse, mobile home, condominium unit, apartment, or equity cooperative. There is no withholding tax and no income tax payable on the RRSP withdrawal. The withdrawn funds must be repaid to the RRSP in annual installments over a 15-year period, beginning the second year following the withdrawal. There is no interest charged on such borrowing.

This differs from the PTZ scheme in two significant respects. First, households without any accumulated RRSP cannot participate in this scheme. Second, there no direct interest subsidy here (although there is eventually a tax expenditure on the foregone interest and capital gains on funds "borrowed" under this plan.

Germany

National Profile and Selected Mechanisms

National Profile

At 82.1 million people in 1999 (the most recent year for which data are available), Germany is almost three times the size of Canada. However, Germany has relatively even more occupied dwellings than Canada: more than three times as many in total. As a result, households in Germany are typically small: 2.28 persons per private occupied dwelling compared to 2.62 for Canada. As of the mid-1990s, the population of Germany was older on average: only 28% were under age 25 (versus 34% in Canada) and 33% are over the age of 50 (versus 26% in Canada). In Germany, 95% of all people in private dwellings are in a nuclear family (husband-wife or lone-parent) living alone, or are persons living alone; the remaining 5% live in a shared arrangement. In contrast, only 84% of Canadians are an unattached person or in a nuclear family living alone. This is reflected in the fact the number of potential households is 40.320 million, of which the occupied stock of dwellings is about 89% (versus just 80% in Canada). By such measurement, Germany evidently has been better able to accommodate adult singles and couples each in their own dwelling.

Table 26 Total persons (thousands) in private dwellings by marital status, living arrangement and tenure, showing age of persons, Germany, 1997

	Age of person									All ages
	Under 20	20-24	25-29	30-34	35-39	40-49	50-64	65-74	75 or older	
Total population	19,702	3,413	6,065	8,112	6,683	10,544	13,893	7,244	5,439	81,095
Married and living with spouse										
Nuclear family living alone	33	633	3,523	5,536	5,409	8,213	10,735	4,762	1,884	40,728
Rented	33	558	2,523	3,281	2,821	3,425	4,468	1,955	940	20,003
Owner-occupied	0	75	1,000	2,255	2,588	4,788	6,266	2,807	944	20,724
Other living arrangement	9	23	197	381	182	440	529	121	34	1,917
Rented	1	17	120	245	85	151	121	18	6	763
Owner-occupied	9	6	77	136	97	289	408	103	28	1,154
Other persons										
Person living alone	18	390	1,085	1,212	570	1,069	1,938	2,096	3,037	11,414
Rented	18	381	962	1,098	484	902	1,329	1,321	2,223	8,718
Owner-occupied	0	9	123	114	86	167	609	775	814	2,696
Nuclear family living alone	18,513	2,194	1,060	874	483	716	600	159	164	24,762
Rented	9,584	991	412	524	364	449	346	64	128	12,861
Owner-occupied	8,929	1,203	648	350	119	267	254	95	36	11,901
Other living arrangement	1,128	173	201	109	40	106	91	105	321	2,274
Rented	571	73	116	61	11	40	47	48	56	1,025
Owner-occupied	557	100	86	48	28	65	44	57	264	1,249

Source 1997 German Socio-Economic Panel, German Institute for Economic Research (DIW)

Note Including conventional marriage (husband-wife), common-law marriage or cohabitation (husband-wife and same-sex couples). Number of persons in sample: 17,113. Results adjusted by the weightings provided by GSOEP

Perhaps as a consequence of this, dwellings in Germany are quite different from those in Canada in several respects. First, they tend to be much smaller: 58% had no more than 3 rooms (in 1997) versus just 12% in Canada at about the same time. They are much less likely to be single-detached dwellings: just 31% of the stock in Germany (57% in Canada).

Table 27 Occupied private dwellings (thousands) by tenure and dwelling type, showing number of rooms, Germany, 1997.

	Rooms in dwelling										All sizes
	1	2	3	4	5	6	7	8	9	10 or more	
All dwellings	1,783	7,268	11,481	6,716	4,277	2,268	1,160	432	117	115	35,615
Owner-occupied	123	828	3,159	3,662	3,463	1,850	1,016	406	105	111	14,723
Condominium	68	382	1,158	521	244	76	58	0	0	0	2,506
Other owner-occupied	56	446	2,001	3,141	3,219	1,774	958	406	105	111	12,217
Single-detached	49	200	1,309	2,030	2,008	1,200	717	332	83	77	8,005
Other dwelling	6	246	691	1,112	1,211	575	241	75	22	34	4,213
Rented	1,659	6,440	8,323	3,054	815	417	144	25	12	4	20,892
Single-detached	148	697	1,259	614	318	148	43	24	8	4	3,263
Other dwelling	1,512	5,743	7,063	2,439	497	269	101	1	5	0	17,629

Source 1997 German Socio-Economic Panel, German Institute for Economic Research (DIW)

Note Not counted as rooms are bathrooms, kitchens, and rooms with an area under 6 square meters. Number of households in sample: 6,489. Results adjusted by the weightings provided by GSOEP

Homeownership rates, trends, and prospects

The German housing market has a large private rental sector (Clark et al, 1997). After the Second World War, the West German national government was faced with the massive job of rebuilding a housing stock that was badly war-damaged. Loan subsidies and tax deductions were made available to investors who built rental housing for households with eligibility certificates issued by the local authorities. Such housing is rent-controlled but reverts entirely to the private sector after the subsidized loan is repaid: typically about 30 years. At the same time, local authorities in cities were given strong powers with respect to land use, and used this power to encourage smaller dwellings mainly in the form of high-density social rented housing. As a consequence, Germany today has a low rate of homeownership. In 1997, only about 41% of all dwellings were owner-occupied (compared to 64% in Canada). Another 15% of all dwellings are in social housing (including nonprofit) stock, and the substantial remainder are in the private rental sector. As further evidence, only 46% of younger (aged under 50) couples in nuclear family households are home-owners: compared to 74% in Canada. Although low by Canadian standards, the homeownership rate in Germany has been rising. In part, this is because the market share held by social rented housing has declined as governments have reduced the subsidies paid. In part, it also reflects the growing popularity of condominiums. Germany was also buffeted in the 1980s first by substantial immigration into the former West Germany arising from the breaking down of the Iron Curtain, then by Reunification. This put considerable pressure on the existing housing stock in recent years; new construction in the West and both extensive renovation and new construction in the East.

Special factors affecting homeownership

Because Germany has such a low homeownership rate, it would appear to have little to offer Canada about how to improve access to homeownership. Indeed in some respects Germany illustrates a path that Canada might want to avoid. Why?

First, social policy in Germany works against homeownership. Housing allowances (entitlements under German law) are paid mainly to renters (not homeowners). About 7% of German renters receive allowances presently. While allowances are deeper for poorer households, the average is about 20% of rent paid. This social policy reduces access to homeownership to the extent that low-income renters are subsidized relatively more heavily than homeowners.

Second, housing policy in Germany also works against homeownership. Postwar subsidies and tax deductions were provided for "social" landlords who built new rental housing. Under this scheme, dwellings could be re-let at market rents after 30 years. After 1989, German housing policy has

accommodated the influx of migrants via deep subsidies to builders of new multifamily homes including up to a 10% annual depreciation allowance in the first three years if rented to low-income renters. All of these programs, because they reduce market rents, make households less interested in home ownership. On a more positive note, these generous programs were abolished in 1996 (after they had led to an oversupply of such apartments); hopefully, this will level the playing field for home ownership.

Third, tax policy works against homeownership. Landlords receive better tax deductions than owner-occupiers: the former can deduct depreciation and interest without upper limits, while the latter can only deduct modest amounts of depreciation. In contrast, the typical housing subsidies to the middle-class (mortgage interest deduction etc.) have recently been abolished in favor of a tax credit. Depreciation allowances are higher for landlords than for owner-occupiers (e.g., no limit on time and house value). Where mortgage interest and other finance charges generate a negative rental income, these can offset other income at Germany's high marginal tax rates (a maximum of 62% when surcharges are included). This is an important reason for low owner-occupancy in Germany. Most well-to-do household buy real estate which they rent out in order to lower their tax burden. This generates a large supply. It also generates a mix of buildings that are rented by households from across a broad range of incomes and without the stigma attached in the U.S. The marginal-tax break-even point (owning vs. renting) is much higher than in the U.S.

Fourth, environmental policy works against homeownership. In part, public policy discussion has pitted environmentalists (some of whom advocate no more sealing of land: that is, building on or paving over new land) against potential homeowners. Germans are concerned about "Zersiedlung" (urban sprawl in a destructive sense). This is more than just sealing of land; it is also the "destruction" of green land around the cities by new developments, and encompasses a much broader range of people than just environmentalists. Most Germans put a high value on having unspoiled land nearby.

Fifth, security of tenure legislation makes renting more attractive. Until recently, there was strict protection for sitting tenants. Rent increases were limited to lagged changes in the market. Notice was essentially impossible unless landlords could prove tenants were damaging the property, etc. Initial rent was never regulated, so landlords could (at least in theory) recover the anticipated "costs". Since the end of the 1980s, staggered contracts and time contracts are possible, and it has become easier to give notice to sitting tenants. However, actual jurisdiction is stricter (in the sense of limiting landlords' actions) than the new written law.

Sixth, strict building codes, expensive land, and the absence of large-scale developers make single-family homes costly. Standard-design houses are uncommon; almost all single-family houses in Germany are custom-designed and fabricated. Because land is expensive, consumers are forced to choose multifamily structures, typically rental, in dense settlement patterns. As in Canada, however, there is concern in Germany to simplify building codes and other time-consuming and costly regulations (at present, designs are double-checked by the local authorities).

Seventh, the mortgage market system makes it difficult for modest-income households to obtain the necessary financing. This is despite a well functioning first and secondary mortgage market in Germany. Since there are no formal downpayment requirements, it is possible to finance a home U.S. style (5% down, 95% mortgage), albeit under relatively strict earnings requirements. However, the typical financing scheme is very different: about 40% down, including savings from a building society's contract, 20% loan from a building society, and 40% mortgage. Mortgages are long-term (25-30 years) with interest renegotiation usually every 5 years (other frequencies available). Younger first-time homebuyers find it difficult to get high LTV loans German banks are "very" conservative about this, with the consequence that defaults are rare. The usual mechanism to generate the downpayment is a family loan, or early inheritance. There is no formal MSR (even within banks) but 32% for an average earner would be considered dangerous.

Eighth, because the banking sector is not as efficient or competitive as it might first appear to be, access to homeownership is hindered. Germany has a well functioning secondary mortgage market.

However, primary mortgages are traditionally local products, even within Germany-wide banks (the branches of these large banks are relatively independent). Banks have started using electronic systems for approval, checking, and certification in mortgage lending, but lag behind U.S. practice. In effect, banks form a cartel that keeps out aggressive low-cost banks (such as Citibank); this may be in the process of changing, but it is still too early to tell. Instruments on the deposit side are still limited (after life insurance, passbook savings are still the most frequent financial asset) and the banks are able to give low returns to savers. On the other hand, mortgage interest is also low, and there is more competition among lenders than among deposit banks.

Emerging trends in policy and market mechanisms

Nonetheless, the German experience is valuable in thinking about how to improve access to homeownership in Canada.

- *Recent experience with consumer counseling.* In the last couple of decades, consumer counseling programs have been made available for first time homebuyers in all larger cities and towns. This program operates as part of general consumer counseling agencies.
- *Experience with capital gains limitation.* In Canada, capital gain on the principal residence of a taxpayer is exempt from income taxation. Until the most recent federal budget changes, capital gains on other property has been taxed at 75% of the rate for normal income. If a person is in the business of buying and selling property, net capital gains are taxed at 100% of the rate for normal income. In Germany, taxpayers must own their home for at least two years before resale. If resold earlier, the capital gain is taxed as normal income. In effect, this serves to dampen speculative buying and selling. Since speculation causes housing prices to bust as well as to boom, taxation of speculative gains may reduce the risk of abrupt changes in price and strengthen the demand for homeownership.
- *Experience with depreciation allowance.* From the mid-1970s until 1996, first and second-time home purchasers in Germany could deduct 5 percent depreciation on the first DM 330,000 of building value over the first eight years. This instrument was sometimes made more generous (about 1992-1996: 6 percent for the first 4 years, 5 percent for next 4 years) and sometimes augmented by mortgage interest deduction. This deduction amounted to DM 19,800 for most homes. In 1996, this tax deduction was replaced with a tax credit of up to only DM 5,000. This new measure has probably decreased new homeownership. In addition, for each child, this amount increases by DM 1,500 - this is an important aspect of the German subsidy system. This child-related tax credit has been in place since the mid-1980s.
- *Experience with mortgage interest relief.* Germany has not had much in the way of mortgage interest relief since, but this situation has changed frequently. During the last episode of mortgage relief, for homes built between 1991 and 1993, up to DM 12,000 of mortgage interest could be deducted for three years, plus a generous flat sum of up to 10% of mortgage value in the first year. Note the lopsidedness: a landlord can now (and could always) deduct all mortgage interest and related financing costs (including the flat sum).
- *Experience with homeownership savings programs.* There are five main types of institutions involved in the provision of housing finance in Germany today (Pannell, 1994).
 - Universal savings banks (sparkassen) provide a range of banking services and finance mortgages through deposits, recourse to capital markets, and secured mortgage bonds (Pfandbriefe).
 - Commercial banks provide a range of banking services and finance mortgages through deposits and recourse to capital markets,
 - Mortgage banks (hypothekenbanken) which issued secured mortgage bonds (Pfandbriefe).
 - Savings and loans (Bausparkassen) which obtain financing through contractual savings.

- Insurance companies.

The dedicated saving programs of German building societies (Bausparkassen) play an important role in smoothing over interest changes. A building society "savings and loan" contract is structured as follows. Households save a specific amount per month at a low interest (typically 2.5%, independent of general interest level) until a number of points is reached: essentially proportional to accrued interest on this savings. Also lump sum payment is possible but disadvantageous. When the point limit is reached, the household is eligible for a low-interest loan: typically at 5% interest regardless of current market interest rates. Equilibrium in this system vis-a-vis the capital market is reached via the waiting time for this loan. Thus, it can be tricky if not timed right. The building society then offers a bridge loan at capital market conditions. Savings into these contracts are tax deductible (subject to complicated income limits that interact with other savings plans such as life insurance) or a tax credit (for low-to-medium incomes). In spite of the trickiness of timing and an unfavorable implicit effective interest rate when averaged across the business cycle, such schemes are a popular instrument. What this really says is that people cannot compute effective interest. These schemes are only rational, if the saving phase is during low interest rates and the loan-phase is during high interest rates. Its value is strictly psychological. It forces people to save for a generous downpayment; it is a means of enforcing self-control. As a byproduct, it reduces defaults to quasi-zero (linked to Bausparkassen as discussed below).

- *Experience with low transaction costs for real estate.* In Germany, transaction costs are low by international standards. Realtors may not charge more than 3.45% (including VAT), compared with up to 6% in Canada. The 3.45% is simply a state-imposed price ceiling which may be good or bad in terms of consumer welfare (good because it reduces unit price, bad because it may reduce service quantity). As well, transaction taxes are generally under 1 percent of the value of the transaction. Mortgage fees are negotiable, but are usually small (that is, under 1 percent) or zero.

While the provision and financing of housing in Germany is broadly similar to that of Canada, this national profile has served to identify important differences. One of these was selected by the Advisory Committee for further study: the Bausparkassen savings-loan contract.

Bausparkassen

Bausparkassen are unique to the West German housing market. Each Bausparkasse is like a U.K. "building society" characterized by a closed financial system seemingly detached from the capital market and a personal relationship of loaners to savers (Degner and Röher, 1977). Savings and loan institutions, wherein funds are earmarked to the formation of residential capital, are commonplace in many Western countries (although not in Canada). The German Bausparkassen system is distinctive because each Bausparkasse itself is a closed financial system. Savings accumulated in the Bausparkassen may be used only to finance the construction, purchase, or improvement of residential property. To be eligible for a mortgage loan from a particular Bausparkasse, the customer must be a former or current saver (bausparer) in that same Bausparkasse. Some individuals use the Bausparkasse only to accumulate savings, and never take out to which they might otherwise be eligible. However, such customers seem to be ill-advised as this rate of return is generally not attractive. Further, savings in Bausparkassen are heavily subsidized, albeit less so in recent years. Presently, there are four major Bausparkassen and several smaller institutions. They all operate at a national scale (unlike, for example, the U.S. savings and loan institutions). In recent years (subsequent to the reunification of Germany), some major banks have entered this business as well. Bausparkassen fall under the usual regulations in the banking industry which is relatively lax in Germany.

The apparent disconnection from the general capital market allows for the specification of a dedicated savings and loan contract (abbreviated "DSL") of the following structure. This is the structure of a typical DSLC contract; there are also contracts with less stringent restrictions on withdrawals but they

are not as commonplace. A contract is signed by a household and a Bausparkasse on a certain contract sum (bausparsumme), typically between DM 50,000 and DM 250,000. This contract sum has two parts, the savings part (typically 40-50%) and the loan part (typically 50-60% of the contract sum). The household commits to a (typically steady) savings flow until the first part of the contract sum has been accumulated. The time for the accumulation is not part of the contract, although the Bausparkasse typically strongly suggests certain monthly payment plans and most households follow one of these steady accumulation schemes. The average accumulation time is between six and seven years, during which the savings cannot be withdrawn. Once the savings have been accumulated, the contract is called "mature," and the saver becomes eligible for the a loan consisting of the balance of the contract sum. However, there is almost always some waiting time after eligibility until the loan is actually paid out and savings are unfrozen. This waiting time is not part of the contract and provides for an equilibrium with the general capital market as explained below. A Bausparkassen loan takes the form of a second mortgage. This is advantageous for a household because the signing of a DSLC does not impede the option of a commercial first mortgage which carries an interest rate which is about 0.5 to 1 percent lower than a second mortgage.

The distinguishing characteristic of this combined savings and loan contract is its interest structure which is completely detached from the capital market and its various interest rates, including the interest rate on conventional first mortgages. The depositor's savings are honored by relatively low interest payments (for a standard DSLC at a rate of 2 to 3 percent per annum). In exchange for the low return on savings, the interest rate charged on the loan is also low (typically only 2 percent above the credit rate, i.e., usually 4 to 5 percent). Such a DSLC contract has two attractions for a risk-averse household: the promise of a loan, and a certain interest rate. Up front (i.e., before starting to save for a down payment) credit restrictions are checked and, if positive, a loan is guaranteed. Second, because savings and loan conditions do not vary with general capital market conditions, the individual household can finance part of his dwelling unit steadily throughout the business cycle (almost without capital market considerations). Capital market equilibrium is obtained by the waiting time between "maturity" of the savings contract and the granting of a loan. Since the individual Bausparkasse can lend only as much as it gets and inflows are not under its control, it has to control outflows by tuning the time at which deposits are paid back and loans are issued to the individual saver. If the number of savers entering the system decreases over time, as it happens, for instance, since the beginning of the 1980s, savers with mature contracts have to wait longer to recover their deposit and obtain their loan than their predecessors. To smooth the imbalance in the savers' financial arrangements possibly created by such a waiting period, the Bausparkasse usually issues an intermediate loan at capital market conditions, financed from outside the system. Since this run counter the idea of a DSLC, the Bausparkassen system depends on a permanent inflow of new savings and the respective savings volumes. The waiting period of course also limits the above-mentioned advantages of a DSLC. Certainty about interest rates and eligibility for a loan is at least partially replaced by uncertainty about the waiting period, and the detachment from the capital market can be shaky when there is no equilibrium between savers and loan recipients.

Savings within the Bausparkassen program were heavily subsidized in the 1960s and 1970s by the West German federal government. This helped make DSLC's attractive. The subsidies declined dramatically in the 1980s and early 1990s (with some comeback in 1996). However, they still exist and are important for lower-income segments. They are fairly irrelevant for richer households. The subsidy may take two forms: a bonus program ("Wohnungsbauprämie") and a tax write-off program ("Sonderausgabenabschreibung"). While there are no eligibility restrictions in the tax write-off program, the bonus program is restricted to households with low incomes.

- **Bonus.** The structure of the bonus in 1978, at the heyday of the Bausparkassen program, was as follows: Individuals with an annual taxable income of up to DM 24,000 were entitled to an annual bonus of 18 percent on savings up to DM 800. To convert 1978 DM to 1998 DM, multiply by 1.74 (based on the German CPI). Taxable income in Germany is in most cases substantially less than gross income because of generous exemption and deductions (compared to the U.S.). For couples, the limits on taxable income and savings deposits have just been doubled. In addition, the limit on taxable income

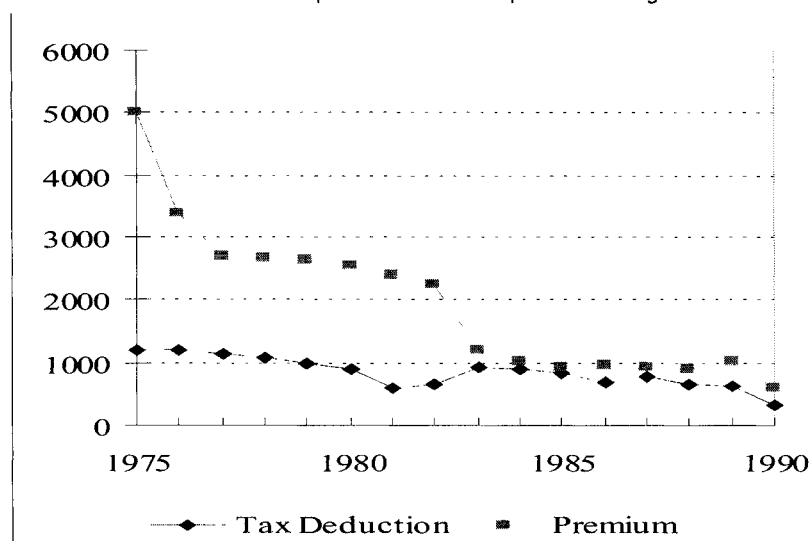
is increased by DM 1,800 (and the bonus by 2 percent) for each child. Neither the bonus nor the interest are taxable. Hence, yearly DSLC savings of up to DM 1,600 by a couple with two children carried a nominal after-tax rate of return as high as 25 percent, assuming a 3 percent interest rate. Subsidies in the bonus program have declined almost steadily since the mid-1970s. There are two reasons. First, the base bonus, which had been as high as 25 percent, was reduced to 23 percent in 1975, and to 18 percent one year later. In 1982, the base bonus was reduced further to 14 percent. Since 1989, it is 10 percent (as of this writing, Fall 1998). Second, the income limits for eligibility in the bonus program have not been changed between 1976 and 1989, despite inflation. This corresponds to a real decrease in the income limits of almost 45 percent between 1976 and 1989. Effective 1990, the 2 percent supplement for each child was abolished, and the income limits have been increased to DM 27,000 for singles and DM 54,000 for married couples, i.e., a rate far below the rate of inflation since 1975 (when the limits were last adjusted). This was only corrected in 1996, when the eligibility thresholds were almost doubled to taxable incomes of DM 50,000 and DM 100,000, respectively.

- *Tax write-off.* Rather than claiming the bonus in their savings deposits, individuals with taxable income are entitled to write savings deposits off their taxable income as part of what is termed "precautionary expenses". Besides dedicated savings, these expenses include all insurance payments (such as health, unemployment, liability, and social security insurance) up a certain limit. Obviously, the subsidy received through this second mechanism is dependent on the marginal tax rate and, in addition, on whether the limits on tax write-offs are exhausted or not. The latter point is most important, as most employed persons must participate in the West German health, unemployment and social security insurance system and these soak up much of the possible write-offs. The only people who can receive a large subsidy are (1) self-employed persons who are free to choosing their insurance and (2) civil servants who, at least during the 1980s, were exempt from most parts of the mandatory insurance system.

The table below shows the costs of the program until German unification. Subsidies to the bonus program declined from DM 3,200 million in 1975 to DM 600 million in 1990 for West Germany. In 1996, subsidies declined further to DM 390 million (Scholten, 1997). With the dramatic increase of the income eligibility limits, the subsidies to the bonus program are expected to increase again to about DM 1,000 million by 1999. In 1975, tax expenditures for the second form of the subsidy (the tax write off) were only a small share of the total Bausparkassen subsidy. This has changed because the tax write-offs did not decline much until 1989 when the tax law made the requirements for precautionary expenses tighter, and only 50 percent of Bausparkassen savings were eligible for tax deduction.

In the heyday of the system (the mid 1970s), more than 50 percent of the flow of funds into residential capital were administered by Bausparkassen. This share has declined to about 20 percent in 1996 (Bundesministerium für Raumordnung, Bauwesen und Städtebau, 1983; Jokl, 1998, Table 9). There are several reasons for this. First, the decreased subsidy made Bausparkassen loans relatively less attractive than mortgages. This is particularly relevant for Germany because it has historically lower interest rates than the Anglo-Saxon countries such that changes in the subsidy have a relatively large effect on the differential between the effective interest rates of a mortgage and a Bausparkassen loan. Second, the typical German custom-built home has been partially replaced by developer-built houses. Developers do not use the Bausparkassen mechanism, and many provide financing to their purchasers as part of a package deal. The third reason may be a change in culture. For the typical member of the generation born before World War II, loans were considered almost something like a "bad habit". Bausparkassen loans and mortgages were paid back as quickly as possible, and consumer loans (as well as credit cards) were an unacceptable failure of parsimony. This attitude has changed in the younger generation, and with it, downpayment ratios declined while mortgages, consumer loans, and credit card purchases have increased. While this is a development all across the industrial world, it has occurred much later and slower in Germany than in the Anglo-Saxon countries.

Table 28 Subsidies and Tax Expenditures for Bausparkassen Program



Note The associated parts of the German tax code are: §20.4 EStG, §10.1 EStG, WoPG including state contributions, SparPG, §13, §15 5.VermBG and the corresponding earlier versions, §19a EStG and §8 KapErhStG. Amounts are in Million DM in 1990 prices

Source Subventionsbericht der Bundesregierung.

The Bausparkassen system is still viewed as an important piece in financing homeownership for lower-income households. For these households, a typical finance plan consists of 30% down payment (partly Bausparkassen savings, partly family loans), 30% Bausparkassen loan, 30% conventional mortgage, and 10% sweat equity. It is not at all restricted to the young first home purchaser. Börsch-Supan and Stahl (1992) show that most loans are paid out when the householder is mid 30 to mid 40, and that many elderly use Bausparkassen loans, mostly for maintenance and additions. The recent renaissance of the Bausparkassen system (after the 1996 changes) is targeted to the former East Germany and fits to the above description. East German income levels are still much lower than in the West, however, housing prices are similar. An overwhelming proportion of all new Bausparkassen contracts since 1992 are taking place in the East, and help to finance an increase in homeownership (currently at 29%, vis-a-vis 42% in West Germany). Implicit rates of return of Bausparkassen DSLC's have varied. They are complicated to compute since they depend on the waiting period which is ex ante unknown and depends on the business cycle. Obviously, it can be advantageous, when saving occurs during low interest periods and one then receives a Bausparkassen loan when interest rates are high. If there is a long waiting period, however, or one signs a DSLC when interest rates are high, a conventional mortgage turns out to be more advantageous. As administered in Germany, Bausparkassen loans entail fairly high hidden costs (administrative charges) which reduce the attractiveness - more competition in the industry and more transparency of the contracts might help in this respect. Again, Germany is behind the Anglo-Saxon countries in this respect.

There are a few formal evaluations of the German Bausparkassen system. Börsch-Supan and Stahl (1992) use both micro and macro level data to show that the volume of Bausparkassen financing is indeed highly responsive to the tax subsidies. Their econometric analyses exploit both cross-sectional and temporal variation in the generosity of the subsidies, and are close to experimental evaluations. The study did not regress directly homeownership on Bausparkassen subsidies. In fact, homeownership has been steady at around 38-40% during the 1970s and 80s, while the subsidies have changed dramatically. However, a regression of Bausparkassen subsidies and implicit returns on the volume of residential construction showed statistically significant positive effects. Since most Bausparkassen loans finance owner-occupied dwellings, it seems fair to conclude that the Bausparkassen system has not fostered the homeownership per se, but the size and quality of owner-occupied buildings. Homburg

(1995) and Scholten (1997) present theoretical analyses that show that the Bausparkassen mechanism is not pareto-efficient, i.e., there are ways to foster homeownership among low income and lower middle class households by the same degree but with less tax expenses. Both papers start with the observation that the essential problem for these households is a liquidity constraint. This constraint is at the tightest level exactly when these household need a owner-occupied home the most, i.e., during early child-rearing. The arguments by Homburg (1995) and Scholten (1997) are easy to understand without much need to go into models: High down payments prefinanced via a Bausparkassen contract increase the pressure on consumption (such as child expenses) rather than relieve it. Thus, a system of government insured loans relieves this pressure and yields a higher utility of general consumption while providing the same housing consumption as under a Bausparkassen contract - in short, tax money is better spent by subsidizing loans than subsidizing savings. The counterargument is a macro economic one: An economy which is undercapitalized needs a savings subsidy rather than a loan subsidy to get on a faster growth path. Germany was indeed undercapitalized in the 60s and 70s when the Bausparkassen system was massively expanded. The "Expertenkommission Wohnungspolitik", a commission of housing economists, took a similar position in 1995, implying a cutback on Bausparkassen subsidies when an economy is well equipped with capital.

Goals, targets, and barriers

What barriers to homeownership are addressed by Bausparkassen? Bausparkassen emerged after World War I at a time when finance and construction costs were rising dramatically (Jokl, 1998). At the time, the main barriers to homeownership were high and volatile interest rates. The Bausparkassen system offered low and fixed-interest loans against long-run savings contracts at equally fixed and low rates, enabling a steady flow of construction that was at least partially detached from the cyclic changes in market interest rates. A second fundamental barrier overcome (or at least mitigated) by the Bausparkassen system is related to imperfect information in the capital market. The Bausparkassen system with its requirement that customers accumulate savings before becoming eligible for a loan supposedly helps separates good and bad credit risks. After several years of contractual saving, the Bausparkassen know much more about their clients than commercial banks do about their mortgage applicants. This was particularly important in the early days of the system when record keeping was much less complete than today. Finally, Bausparkassen contracts - similar to all other dedicated saving contracts - are a device for self-control that helps to enforce a life-time budget constraint, in particular under uncertainty. It thereby decreases defaults which are indeed low in Germany vis-a-vis the Anglo-Saxon countries, in particular the UK. It does so in two ways. First, it enforces a payment plan that may keep households from unwise financial habits. Second, it sorts good and bad risks early in the process, not - like in the US or UK - after the fact.

In its task as a subsidy to homeownership for the lower third of the income distribution, subsidies to the Bausparkassen program are likely to stay in place for a while. However, as a financing instrument for the remaining population, it will probably continue its secular decline, in particular, when self-control enforcing mechanisms become less popular, and indebtedness less of a "moral failure". The Bausparkassen program's function as an information device (to extract a signal that sorts people in good and bad risks) may also diminish with the increasing power of general credit rating mechanisms fostered by the spread of credit and debit cards.

Closest equivalent in Canada: past or present

There are two separable ideas to the Bausparkasse concept as presented here. One is the idea of a savings bank especially oriented to prospective home purchasers. The second is the idea of the dedicated savings and loan contract (DSLCL).

The idea of a savings bank oriented to the mortgage (and other borrowing) needs of local consumers is one that is (1) evident almost everywhere, but curiously (2) rapidly disappearing almost everywhere.

The United States has its "Savings and Loans". France has its "Caisses d'épargne et de prévoyance", Australia and the United Kingdom have their "building societies". Canada, for its part, has had trust companies, credit unions, and caisses populaires that served some of the same purposes. In fact, before the Bank Act reforms of 1967, Canada excluded banks from residential mortgage lending. There were three main reasons why these kinds of specialized mortgage-lending institutions existed. First, mortgage interest rates were regulated. As a result, the flow of money into mortgage lending was turned off (or on) as conventional interest rates rose above (or fell below) the legislated mortgage interest rate. Special circuits of housing finance were encouraged to ensure some amount of housing finance was available even when the market rate of interest was above the legislated mortgage rate. Second, partly as response to the exigencies of the Great Depression, governments wanted to ensure competition in financial markets and to limit the monopoly power of major banks. The separation of equity, insurance, mortgage lending, and other financial activities into non-overlapping sectors was seen to be sound financial practice. Third, for various reasons, some consumers will always be attracted to such institutions; it might be the "local" focus of the business, the sense of community, or the attractiveness of mutual aid. Whatever the reason, the separation of housing finance from the rest of the lending market today is widely thought to be inefficient and unnecessary. After 1967 for example, conventional mortgage interest rates were no longer regulated in Canada. Further, a principal focus of modern housing policy is to broaden the sources of funding for housing finance and to remove restrictions that interfere with efficient operation of the market. Finally, the increasing emphasis on globalization means that banks and other financial institutions must be large enough to compete on a world stage. In this respect, Sparkassen and other separate circuits of housing finance—wherein depositors save money that is used only/mainly for mortgage lending—are less efficient than having the large-scale bank operations and well-developed secondary mortgage markets that exist in Canada today.

However, the applicability of a DSLC in Canada is another question entirely. As stated above, a DSLC is nothing more than an option to take out a mortgage loan at some future date. In that sense, any financial institution, say a bank, could offer a DSLC to selected customers. To the bank, a DSLC can be seen as just one more pricing tool. The bank which normally has an interest rate for a regular savings account and an interest rate for a conventional mortgage, can now also have a DSLC account with its own saving and borrowing rate. While banks in Canada have not directly experimented with DSLC accounts, it is plausible that these could be important tools in building customer loyalty.

New Zealand

National Profile and Selected Mechanisms

National Profile

Of the six nations studied here, New Zealand is the smallest in population: just 3.7 million people in the latest Census (1996). Of these, about 3.500 million are accommodated in 1.268 million private occupied dwellings; the remainder are housed in a small number of collective dwellings and elsewhere. The average number of persons per private dwelling is 2.76, slightly more than the 2.64 average for Canada in the same year. The number of families (which—unlike Canada—includes same-sex couples) is about 0.949 million, and these are home to 2.888 million people. Average family size therefore is 3.04 persons: comparable to the 3.07 person average in Canada. In terms of age distribution, New Zealand now has more young people: 45% of the population was aged under 30 in 1996, compared to 41% in Canada.

Table 29 Population, families, dwellings, and households (thousands), New Zealand, 1996

Total population	3,682								
Occupied private dwellings	1,268								
Usual residents in private dwellings	3,500								
People in families	2,888								
Total number of families	949								
One-parent families	168								
Couple only	355								
Two-parent families (with children)	427								
Non-family NZ residents in private dwellings (excluding absentees)	665								
One-person household	264								
Non-family households	311								
Usual resident population by age group									
Under 20	20-24	25-29	30-34	35-39	40-49	50-64	65-74	75 or more	Total
1,095	272	273	293	285	496	481	247	176	3,618

Source: Statistics New Zealand. Census of New Zealand

The housing stock of New Zealand is made up preponderantly of detached dwellings. They account for 82% of all private occupied dwellings in 1996: compared to just 56% in Canada. Further, the stock is very standardized in terms of number of rooms. Including apartments, single-detached dwellings and all other private occupied dwellings, fully 48% of all dwellings have either 5 or 6 rooms. In Canada, there is much more dispersion of dwelling size; only 35% have either 5 or 6 rooms.

Homeownership rates, trends, and prospects

Historically, New Zealand has had a high rate of homeownership, reflecting low land prices, strong cultural preferences, and active government promotion of homeownership. However, the 1996 census saw homeownership rates decline to 70% compared to the 73% figure reported in the censuses of 1991 and 1986. The homeownership rate is much lower, and has fallen further, for indigenous Maori households and for Pacific Islanders. The homeownership rate among Maori fell from 51% in 1991 to 42% in 1996. Pacific Islanders' homeownership rate fell from 49% to 37%. This decline may be overstated

due to changes in the reporting of ethnicity, but the poor homeownership rates amongst Maori and Pacific Islanders cannot be explained simply by income and age differences from the general population.

Table 30 Occupied private dwellings and occupants (thousands) by type, New Zealand, 1996

	Dwellings										Persons
Detached house	1,046										3,067
House/flat attached to nonresidential structure	7										18
Semi-detached, duplex	115										231
Other dwellings in buildings of one or two storeys	81										149
Other dwellings in buildings of three or more storeys	11										21
Other private dwelling	8										14
	Rooms in dwelling										All dwellings
	1	2	3	4	5	6	7	8	9	10 or more	
Dwellings	6	20	53	156	267	319	180	105	54	53	1,268
People	8	31	89	311	691	912	569	359	192	189	3,500
	Dwellings										People
Owned with Mortgage	448,374										1,468,122
Owned without Mortgage	394,077										877,299
Owned, Mortgage Not Specified	18,312										42,393
Provided Rent Free	45,405										118,812
Rented	290,124										806,004
Not Owned, Rental Status Not Specified	21,534										54,537
Not Specified	50,271										132,795
Total	1,268,100										3,499,962

Note: All cells in this table have been randomly rounded to base 3. "All dwellings" column includes dwellings where number of rooms is unidentifiable or not specified.

Table 31 Homeowner households (thousands) showing percentage of all households, New Zealand, 1986-96

	1996		1991		1986	
	Number	%	Number	%	Number	%
With Mortgage	449	37	456	39	448	42
Without Mortgage	396	32	396	34	343	32
Mortgage not specified	18	2				
Total	864	70	852	74	791	74

Source: Statistics New Zealand. Census of New Zealand

Special factors affecting homeownership

Home ownership in New Zealand has been buffeted by many of the same forces that have affected other countries in the past couple of decades: namely, the changing nature and longevity of employment, the exigencies of global competition, and ongoing social and demographic trends (e.g., rising numbers of young lone-parent families and persons living alone. Particular local factors that may also have contributed to the fall in homeownership rates include cuts in most Social Welfare benefits in 1992 which reduced incomes for low-income households, especially lone-parent households and the unemployed. As well, increased post-secondary education enrolments and the growth of student loan debts may be causing young households to defer home purchases. An income-contingent student loan program was introduced in the early 1990s as tuition fees were increased and living allowances cut.

Striking changes in social, financial, and housing policies have been enacted in the past decade. Public finance reform has put an increased emphasis on contracting for outputs from government departments and stronger requirements for transparent accounting for the cost of capital. Deregulation of financial markets has led to increased reliance on the private provision of mortgage finance. Low-interest lending by the Housing Corporation of New Zealand has ended, and its mortgage portfolios have been privatized. A housing allowance scheme, the Accommodation Supplement (AS), has emerged as the government's primary housing policy instrument.

Major changes in public policy may have contributed to reduced homeownership. Since 1990, the Government has largely withdrawn from active promotion of homeownership. This action was driven by skepticism both about the effectiveness and efficiency of government intervention and about the social benefits of pushing homeownership rates higher. The N.Z. Reserve Bank has repeatedly voiced concern over New Zealanders' over-investment in their homes and is encouraging policies to shift savings into other sectors. Finally, one policy that might have induced more home ownership was the proposed compulsory self-funding pension scheme. Under this scheme, home equity would have been included in recognized savings towards individual annuity-fund targets. However, this scheme was rejected in a referendum in 1997, and never enacted.

Emerging trends in policy and market mechanisms

Following the welfare reforms outlined in the 1991 N.Z. Budget, the provision of housing was no longer seen as a "core activity". Housing assistance is now delivered almost entirely on the "demand side" through the Accommodation Supplement (AS). This new entitlement replaced a mixed system of housing assistance for low-income households - with income-related rents for public housing tenants; a smaller cash housing allowance for private-sector tenants; and mortgage interest subsidies for low-income home-owners which had previously been an important policy instrument for promoting homeownership. Public housing rents were moved to market rates equal to the private sector. The Accommodation Supplement is intended to be "tenure neutral" - providing the same assistance regardless of tenure (owner, renter in public housing, renter in private housing). For renters, the AS pays 70% of rent in excess of 25% of net income. Maximum levels vary by region and household size. Income and cash-assets abatements apply. For homeowners, the AS pays 70% of housing costs in excess of 30% of net income. Housing costs include loan repayments (principal and interest), insurance, maintenance and property taxes. Because the eligibility criteria are generally stricter than banks' mortgage lending criteria, many home-owner recipients are households who have experienced an unexpected loss of income. As of June 1996, AS was paid to approximately 166 thousand renters, 43 thousand mortgagors, and 70 thousand boarders. In all, approximately 265 thousand AS recipients were either welfare recipients or pensioners, and the remaining 15 thousand were earners with low incomes.

Prior to the reforms, the Housing Corporation of New Zealand (HCNZ) managed the public sector rental stock (about 5% of the total housing stock) on a rent-geared-to-income basis. In addition, the Corporation administered the government's mortgage scheme and the Residential Tenancies Act and provided policy advice to the government. In 1992, the Corporation's rental housing was transferred to a new government-owned company, Housing New Zealand Ltd. (HNZ). The new Ministry of Housing took on the policy advice function. Responsibility for housing loans was left with the Corporation. The Corporation has now sold almost all of its mortgage loans, closed its national branch network, and ceased to actively promote its lending programs. Loan sales and repayments have reduced the Corporation's loan assets from NZ\$4.1 billion in 1991 to about NZ\$40 million in 1999. New lending continues on a small scale - in 1999, the Corporation issued less than 400 new mortgages for NZ\$28 million. The Corporation targets households on the margins of private sector lending criteria, and refers borrowers to private lenders where possible. New lending is focussed on targeted programs for public housing tenants and for rural households in predominantly Maori areas. Interest rates are set at market levels, but lending criteria are slightly more relaxed. The Corporation is now too small to operate economically its own loan origination and management activities. It is exploring options for

contracting-out the remaining loans business, and for "facilitation" of private-sector lending to low-income households through insurance and underwriting methods.

Since 1994, the Government has encouraged HNZ tenants to purchase their home under the "Home Buy" program. This program offers of a 10% discount from market valuation (by way of a suspensory loan written off over 7 years). This discount is recognized as equity and can contribute all or part of a down payment for a Housing Corporation mortgage. The Corporation provides high-LTV mortgage finance for Home Buy participants, and a small-scale program insuring private loans to them. The Corporation provides "top slice" insurance on loans with LTVs over 80%. Insurance premiums may be capitalized into buyers' loans. However, the response to Home Buy from HNZ tenants has been low, and the program is motivated more by a desire to reduce and reconfigure the state rental housing stock than by a desire to promote homeownership. While sales to tenants through the Home Buy program receive most attention, a greater number of state rental houses have been sold individually or in blocks to private buyers. The total HNZ rental housing stock fell from 70,000 units in 1994 to about 50,000 in 1999.

The NZ government has also moved to deregulate the real estate and conveyancing industries. In the past, the law required that solicitors perform all conveyancing work. Conveyancing fees are set to fall as new legislation opens the industry to qualified non-lawyers and recognizes Australian conveyancers' qualifications. This initiative was not designed specifically to enhance access to homeownership so much as to encourage competition and efficient pricing. Conveyancing deregulation will allow increased competition against lawyers from land agents, and initial indicators suggest this is effective in reducing costs.

NZ has also taken an initiative with respect to pre/post-purchase counseling for those at the margins of private sector lending standards. This is increasingly a trend also in the US - with programs such as "move to opportunity" providing some form of education for prospective buyers, and ongoing follow-up after purchase to reduce default risk and ensure maintenance on the property etc. This is a small-scale program of the NZ Housing Corporation, currently limited to Maori rural housing program and following the design of USA programs. As yet, it is too early to get any useful evaluation of success.

New Zealand uses a form of condominium ownership known as a "Cross Lease". Here, the dwellings are owned individually as in Canada. However, in a cross lease, the land is owned by joint corporation and leased to individual homeowners. This is different from Canada where the land and other "common elements" are maintained, but not owned, by the condominium corporation and where the condominium owner does not lease land from the corporation. In effect, the cross-lease arrangement is a different way of financing the construction of condominium buildings.

Sweat equity and other in-kind deposit programs were used to a small extent in NZ in the past but with limited success. Such initiatives are now being revived as the Housing Corporation tries to breathe life into its Maori low-deposit rural lending program. In Canada, we have had experience with similar programs, notably the "shell housing" program in Nova Scotia. Such programs are attractive in rural areas where the seasonal nature of employment often means both that annual incomes are low and that householders have the time available to finish a partly completed dwelling. Of course, almost all new single-detached dwellings in Canada are incomplete if only because of the absence of a finished basement, backyard patio, or other landscaping. In a sweat equity program, however, the homebuyer is expected to do much more with the dwelling: from exterior sheathing, to painting, to electrical or plumbing work. The problem for lenders here is that the resale value of a shell dwelling varies with the quality of the sweat equity: the implication being that default risk rises the greater the sweat equity.

Finally, the government has experimented with downpayment assistance. Included here is the 'suspensory loans' tried in NZ under a program called "Homestart". Suspensory Loans were also offered to defer down-payments under this program, and many of these loans had to be capitalized into borrowers' mortgages as they came due, causing negative equity and default problems. These sound

similar to the Assisted Homeownership Plan (AHOP) tried in Canada in the 1970s that subsidized second mortgages. In effect, such schemes defer part of a downpayment for a number of years, and were thought to make sense in an inflationary era where incomes were thought to be increasing.

CMHC's research project advisory committee decided not to investigate further any of the types of initiatives or mechanisms employed in New Zealand.

United States National Profile and Selected Mechanisms

National Profile

At 265.8 million people in 1997, the United States is more than nine times the size of Canada. However, this difference in size aside, we might well expect that the housing stocks in the two countries are similar. After all, builders and developers employ similar techniques in dwelling construction and similar dwelling designs. Indeed, many of the building materials are the same throughout of the U.S. and Canada, and with the globalization of industry increasingly come from the same suppliers. The economies of the two countries are closely linked overall, so that periods of economic boom and bust, and their accompanying impacts on the housing market, are also similar. As well, both countries rely mainly on the private sector to build and operate housing, although Canada has a relatively larger stock of social housing. Dating back to the financial regulations that emanated from the Great Depression, both Canada and the United States had circuits of capital for housing finance that were separate from other financial markets. However, Canada was first to deregulate housing finance (starting in the early 1960s) and was thus able to avoid problems that beset the U.S. savings and loan (S&L) industry in the 1980s.

Against this backdrop of broad similarity, some differences stand out. One has to do with the exigencies of climate. Dwellings in Canada on average must be built to protect against a colder climate with greater snowfall accumulation. Sturdier roofs and a basement foundation are two immediate consequences. This, in turn, implies that dwellings will be more expensive to build and operate. As well, given the Canadian proclivity to "finish" a basement by constructing rooms therein, the number of rooms in a typical dwelling will be larger here. In 1997, only 26% of all U.S. dwellings (46% of owner-occupied single-detached dwellings) had more than 6 rooms. In Canada in 1996, 40% of all dwellings (62% of owner-occupied single-detached dwellings) were of this size. A second difference is the greater propensity toward town planning in Canada that has resulted in considerable regulation of development, a standardization of suburban neighbourhood environment, and more-costly accommodation.

The impact of housing that is more costly is evident in data on household formation. In the United States, the number of potential households (the sum of all couples plus all other persons aged 20 or older) in 1997 was 132.2 million. Vis-a-vis total population, this is relatively larger than Canada's 13.8 million in 1996—mainly because Americans are less likely to be married at any given age than their Canadian counterparts. However, the actual number of households in the U.S. (112.4 million) is 85% of the potential, whereas the actual number of households in Canada (10.8 million) is only 78% of its potential. Put differently, individuals and families in Canada are more likely to live in shared accommodation—a result consistent with the notion that accommodation is relatively more expensive in Canada.

Homeownership rates, trends, and prospects

The incidence of homeownership is presently higher in the U.S. than in Canada. For example, about 81% of U.S. husband-wife families, lived in owner-occupied dwellings (in 1997) compared with 78% in Canada (in 1996.) Among nonelderly couples, the incidence of homeownership is similar in the two countries. It is only among couples aged 65 or older that a difference is apparent: 92% of such couples are owner-occupiers in the U.S., versus just 84% of elderly Canadian couples. The second demographic group wherein homeownership is more commonplace in the U.S. is nonfamily persons. Overall, 52% of

Table 32 Private dwellings (thousands) by tenure and dwelling type, showing size (number of rooms), United States, 1997.

	Rooms in dwelling										All sizes
	1	2	3	4	5	6	7	8	9	10+	
All dwellings	471	1,470	11,706	23,468	24,462	21,367	13,809	8,439	4,173	3,033	112,398
Owner-occupied	5	100	1,027	6,995	14,813	16,455	11,927	7,615	3,855	2,735	65,500
Condominium	0	12	312	1,212	913	655	227	98	58	62	3,549
Other	5	88	715	5,783	13,900	15,800	11,700	7,517	3,797	2,673	61,951
Single-detached	0	44	393	3,473	11,000	14,100	10,800	7,221	3,688	2,566	53,285
Other	5	44	322	2,310	2,878	1,698	882	296	109	107	8,651
Rented	466	1,370	10,679	16,473	9,649	4,912	1,882	824	318	298	46,871
Single-detached	6	45	512	1,715	2,480	2,017	906	399	177	99	8,356
Other	460	1,325	10,167	14,758	7,169	2,895	976	425	141	199	38,515

Note Unlike the Canadian census, the count of rooms do not include laundry rooms or utility rooms. Data include both occupied and unoccupied private dwellings. The total number of occupied dwellings was 98.49 million.

Source 1997 American Housing Survey. Calculations by Donald Haurin, 1999.

Table 33 Total persons (thousands) by marital status, household status and tenure, showing age of persons, U.S., 1997

	Age										All ages
	Under 20	20-24	25-29	30-34	35-39	40-49	50-64	65-74	75 or older		
Total population	78,722	17,489	19,260	20,995	22,756	39,374	36,134	18,015	13,007	265,752	
Married, with spouse	355	3,266	8,866	12,760	14,891	26,858	25,632	11,288	5,666	109,582	
In collective dwelling	0	0	0	0	0	0	0	0	0	0	
In private dwelling											
Nuclear family only	355	3,259	8,853	12,747	14,887	26,552	25,376	11,288	5,596	108,913	
Rent	226	1,992	3,917	3,845	3,078	3,927	2,666	832	559	21,042	
Own	129	1,266	4,936	8,901	11,809	22,624	22,710	10,456	5,037	87,868	
Shared dwelling	354	7	13	13	3	306	255	0	70	1,021	
Rent	354	7	9	5	2	148	90	0	7	622	
Own	0	0	4	8	1	157	165	0	64	399	
Other persons	78,367	14,223	10,394	8,235	7,865	12,517	10,502	6,728	7,341	156,172	
In collective dwelling	35	46	9	10	5	0	0	2	0	107	
In private dwelling											
Live alone	95	988	1,791	1,839	1,943	3,861	4,913	4,361	5,157	24,948	
Rent	85	904	1,428	1,258	1,196	2,021	2,035	1,377	1,703	12,007	
Own	10	85	363	580	747	1,840	2,878	2,983	3,454	12,940	
Nuclear family only	77,075	10,746	5,822	4,819	4,554	6,933	4,429	1,976	861	117,215	
Rent	27,309	3,513	2,676	2,339	2,131	2,491	1,439	465	164	42,527	
Own	49,766	7,233	3,146	2,480	2,423	4,442	2,810	1,511	697	74,508	
Shared dwelling	1,162	2,442	2,771	1,567	1,218	1,723	1,340	389	1,323	13,935	
Rent	755	2,141	2,154	1,014	724	750	442	80	218	8,278	
Own	407	300	618	552	495	972	898	308	1,105	5,655	

Note Unlike the Canadian census, nonmarried partners are not counted as married couples. The Current Survey of Population includes only the following kinds of collective dwellings: rooming houses, transitory residences in motels, hotels, and dorms. It excludes other collective dwellings: e.g., mental institutions, rest homes, and correctional facilities. A nonfamily householder is a person maintaining a household while living alone or with nonrelatives only.

Source 1997 Current Survey of Population. Calculations by Donald Haurin, 1999.

nonfamily persons in the U.S. live in owner-occupied accommodation versus just 44% in Canada. Of course, this includes nonfamily persons who live with a homeowner family. A better measure here is the ratio of persons 20 or older living alone in owner occupancy to the total population aged 20 or older not living with a spouse: 17% in the U.S. versus 15% in Canada. However, among age groups under 65, the incidence is similar in the two countries. It is only among persons aged 65 or older that the

incidence of living alone in owner-occupancy is substantially higher: 46% in the U.S. versus 34% in Canada. Therefore, the picture evidenced here is one of broad similarity between the two countries except among the elderly. Two possible conjectures follow from this. One is that Canadian elderly today are less likely to be homeowners because they have recently switched to renting. The second is that the cohort that is today elderly has been more prone to rent during their entire housing career. From the available data, we cannot determine which of these conjectures better describes the current situation. However, understanding the processes involved is important in predicting whether the high incidence of homeownership observed among younger age groups in Canada will spill over into the elderly age groups in the future.

Table 34 Total families and nonfamily persons (thousands) in private dwellings by family status, number of children present and tenure by age

	Age of nonfamily person, husband, or lone parent								All ages
	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
Total householders	5,161	19,314	23,822	18,843	12,468	11,681	7,689	2,038	101,016
Husband-wife family	1,333	9,902	14,254	11,483	7,536	5,952	2,764	380	53,604
No children present	595	2,261	2,586	6,744	6,937	5,869	2,749	380	28,121
Owner-occupied	202	1,585	1,967	5,919	6,303	5,477	2,479	327	24,259
Rented	393	1,076	619	825	634	392	270	53	4,262
One child present	426	2,631	3,460	2,474	447	61	11	0	9,510
Owner-occupied	139	1,642	2,795	2,156	381	53	9	0	7,175
Rented	287	989	665	318	66	8	2	0	2,335
Two or more children	312	4,610	8,208	2,265	152	22	4	0	15,573
Owner-occupied	109	2,915	6,740	1,938	124	15	0	0	11,841
Rented	203	1,695	1,468	327	28	7	4	0	3,732
Lone-parent family	1,124	3,188	3,827	1,252	143	39	4	3	9,580
One child present	689	1,247	1,849	876	123	32	4	3	4,823
Owner-occupied	81	305	793	510	55	24	4	3	1,775
Rented	608	942	1,056	366	68	8	0	0	3,048
Two or more children	435	1,941	1,978	376	20	7	0	0	4,757
Owner-occupied	36	474	845	213	9	2	0	0	1,579
Rented	399	1,467	1,133	163	11	5	0	0	3,178
Nonfamily person	2,704	6,224	5,741	6,108	4,789	5,690	4,921	1,655	37,832
Owner-occupied	376	1,703	2,546	3,470	3,071	4,046	3,468	1,047	19,727
Rented	2,328	4,521	3,195	2,638	1,718	1,644	1,453	608	18,105

Note Age is of nonfamily person, householder, or lone parent. A householder is either the husband or wife, determined by whose name the dwelling is owned or rented. If neither applies, it is self identified. Unlike the Canadian census, "child" status is restricted to offspring under the age of 18.

Source 1997 Current Survey of Population. Calculations by Donald Haurin, 1999.

Between the end of World War II and the end of the 1970s, the United States became even more a nation of homeowners. This trend was fueled by a substantial growth in the real incomes of households through the 1950s, 1960s, and 1970s, as well as by vigorous federal housing policies. This largely paralleled the experience in Canada. Over the 1980s, real incomes failed to keep pace and in the early 1990s suffered from recession and economic restructuring. As a result, the U.S. homeownership rate for young families fell during the 1980s, creating an ownership "shortfall" which was to reassert itself later on in the economic boom of the 1990s. Again, the experience in Canada is proving to be similar. As in Canada, changes in demographic composition helped to undermine some of the trend toward homeownership. The decline in marriage and fertility rates since the 1970s, and the rising number of divorced persons, lone-parent families, and same-sex couples led to an explosion in the number of "nontraditional" households. Although the number of traditional households (that is, husband-wife families with children at home) continued to increase over this period, traditional households fell as a proportion of all households. This trend accelerated in the 1980s as the baby boomer generation began to leave the young family formation stage. Given that traditional households are much more likely to own, the effect was to dampen homeownership rates overall.

At the same time, the unique "savings and loan" experience in the U.S. has profoundly reshaped the financing of homes in particular, and real estate in general. The special circuits of housing finance that had propped up long-term fixed-rate mortgages in the U.S. for many decades began to come apart under the intense competition for household savings that accompanied the rise in interest rates during the 1980s. Driven in part by the sobering experience of the 1970s and 1980s, investors saw the need to protect their capital against the risks of inflation and to improve liquidity. In part, the breakdown of the savings and loan mechanism was overcome by the ascendancy of Freddie Mac and Fannie Mae. At the same time, there was an increasing depth and variety of instrument in financial markets, including adjustable-rate mortgages. This experience contrasts sharply with the more-stable environment for residential investment in Canada where there is no equivalent special circuit for housing finance and where rollover mortgages have been the market norm for several decades.

There were also changes in federal U.S. housing initiatives. Funding of some supply-side subsidy programs under the U.S. Department of Housing and Urban Development (HUD) was eliminated, but these were replaced by demand-side programs such as housing vouchers; overall federal expenditures continued to grow throughout the Republican presidential years. As well, there is evidence that U.S. Federal Housing Act (FHA) lending became less important, but the net effect was offset by the rapid growth of Freddie Mac and Fannie Mae activity. However, the reduction in homeownership rates in the 1980s might be attributable to other tools of federal policy: especially the Tax Act of 1986, and the high nominal and/or real interest rates that continued through the 1980s. Also, in common with Canada, housing policy in the U.S. in the 1980s and 1990s has been shaped by an ideology emphasizing less government involvement, less tolerance of the welfare state, and an emphasis on tax reduction and/or deficit elimination. Policy has focused on promoting public-private leveraging for affordable home financing, and more flexibility in qualifying ratios and compensating factors. In 1996, low-income borrowers accounted for 40% of all mortgage lending in the U.S., up from 30% in 1990. The increase is due mainly to new targeted lending programs. HUD is also authorized to provide budget, debt-management, and related counseling services to these families. As well, housing functions and responsibilities have shifted toward the state and local level (e.g., block grants), although much of the funding continues to originate at the federal level.

As in Canada, U.S. federal housing policy has focused on the provision of mortgage insurance as a means of reducing the cost of financing and thereby improving access to home ownership. However, in part because of its relatively fragmented banking system, the U.S. has also needed a national mechanism for ensuring that the mortgage investment funding process operates efficiently across the nation. Three federal bodies are charged with this task: Fannie Mae, Freddie Mac, and Ginnie Mae. The first two are Government-Sponsored Enterprises (GSE); the third is a federal agency. Fannie Mae and Freddie Mac are chartered to increase the availability and affordability of housing for low-, moderate, and middle-income Americans. Since its inception in 1938, Fannie Mae has invested in mortgages that originate in savings and loans, mortgage companies, and banks. The company buys residential mortgages for its investment portfolio and earns a spread between the yield on portfolio investments and the cost of debt funding those investments. Fannie Mae also receives pools of mortgage loans from lenders and exchanges them for Mortgage-Backed Securities, which the company insures. Freddie Mac, created in 1970, also packages mortgages into securities and sells the securities—guaranteed by Freddie Mac—to investors. Freddie Mac and Fannie Mae have essentially the same charters, Congressional mandates and regulatory structure but different strategies for achieving their missions. Ginnie Mae is a government agency created by Congress to ensure adequate funds exclusively for government loans insured by the Federal Housing Administration (FHA) and Veterans Administration (VA).

Special factors affecting homeownership

The U.S. homeownership experience in the 1990s apparently differed significantly from that of other countries in the survey. The U.S. rate troughed at 63.8% in 1988 and then climbed to reach 66.8% in 1999 (according to Ginnie Mae's 1999 Annual Report) a record high percentage (the prior record was for

1980). Since then, the homeownership rate has continued to climb even higher: reaching 67.% in the Autumn of 2000. Homeownership rates rise with age up to a peak of about 80% at age 65, before eventually declining at advanced ages, and are significantly higher for married couples and for whites. The rate has risen for all age groups (for those under age 44, the trough was in 1992), although the greatest increase has been in the age 65+ group (likely due in part to a relative decline in the share over age 75). The increase in ownership has been spatially diverse, rising in rural, suburban, and central city areas, but the greatest increase has been in the suburbs. Rates have increased for White, Black, and Hispanic households, most for Hispanics (5 percentage points), next for Blacks (4 percentage points). The breadth of the increase holds for married couples and singles, and for families with and without children. The aggregate homeownership rate in a country depends heavily on the demographic mix of the population (age, percent married, and race). The rate for specific age-race-marital-status categories depends largely on economic factors: the annual cost of owning relative to renting and the affordability of owner housing. These, in turn, depend on real wages, employment, real wealth, real house prices, real interest rates, and expected inflation, as well as public policies. We would suspect, then, that demographic and economic factors have been more favorable for the U.S. than for the other surveyed countries. The U.S. economic data have improved strongly, and the demographic data either improved or at least stopped worsening. Why?

The economy from 1993 to 1999 was characterized by strong aggregate growth, growth in real family incomes, steady to slightly declining and low inflation, steady to declining nominal 30 year mortgage interest rates, falling unemployment, and robust growth in the stock market. All factors have moved in directions that tend to increase the homeownership rate, and, we suspect, have moved relatively more favorably in the U.S. than our group of comparison countries.

- *Upturn in capital gains.* Holding quality constant, house prices declined relative to the Consumer Price Index (CPI) in the early 1990s, but have been rising since about 1993-94. The key to assessing the attraction of homeownership here is expected house price inflation relative to the CPI. The upturn from 1994 through 1997 would therefore make homeownership more attractive.
- *Growing incomes.* Median household income has risen 21% from 1992 to 1999, or about 5% faster than the CPI in the same period. Most empirical work indicates that increased income raises the tendency to own a home. One likely cause is that the demand for privacy rises with income and most U.S. households who own, own a single family detached unit. Increased income also allows a household to more easily meet the required Mortgage Service Ratio (MSR) constraint.
- *Falling unemployment.* The unemployment rate rose from 1990 to peak in 1992 at 7.5%. Since then it has steadily fallen to 4.3%. This decline has been a significant contributor to the increase in real income per household. The reduced unemployment rate lowers the uncertainty of a household's receipt of income as well as reducing the percentage of unemployed adults. The reduction in uncertainty increases the tendency to own a home rather than rent. The reduction in the percentage of unemployed adults means that fewer will be forced to use their savings for support during the period of unemployment.
- *Low inflation and mortgage interest rates.* The CPI increased by 16% from 1992 to 1999. The rate of inflation had slowly declined to about 2.5% annually by 1999. The 30-year fixed nominal mortgage rate fell substantially prior to 1993 and then has been relatively stable with a modest peak in 1994. The nominal rates on one year adjustable-rate mortgages is substantially lower than 1991, but was relatively stable from 1992 to 1999. The relatively stable rate of inflation has likely decreased household uncertainty, tending to increase homeownership. Moreover, the reduction in nominal mortgage interest rates lowers the monthly mortgage payment making it easier for a household to meet the lender imposed monthly mortgage payment to income constraint. Median household income (nominal) has risen 21% from 1992 to 1999. Real mortgage rates have moved within the range of 4.3 to 5.8 percent with no trend over the 1990s. With a slight increase in marginal tax rates, after-tax mortgage rates are roughly unchanged.

- *Shift in taxation.* In 1996 the capital gain tax associated with nominal house price increases for homeowners was essentially all but eliminated. State and local tax rates have been relatively stable in rates because of the strong economy. There has been a trend for property tax financing of local school systems to come under attack in the state courts. The result in a few states was to move from property taxes (deductible under Federal Income Tax) to others local taxes such as nondeductible sales taxes. The impact in these states has been to reduce the user cost of homeownership because the direct cost of the property tax outweighs the loss of tax advantage. There is an accompanying loss in real income resulting from the higher after tax cost of financing schools.
- *Stability in the price of owning relative to renting.* Although the data are somewhat rough, estimates suggest that the ratio of constant quality house price to rent was unchanged overall during the 1990s (the ratio appears to have risen from 1992 to 1994, but then reversed direction). Real house prices and real rents have both increased by 3% from 1991 to 1999. There has been no net impact on ownership rate.
- *Stock market/wealth.* The Dow-Jones Industrial average fell slightly from 1990 to 1991, but since then has more than tripled, with the greatest rate of increase being from 1995 onwards. The boom in the stock market has increased household wealth. The expected impact on homeownership is positive, the magnitude depending on the depth and breadth of the change. The greater the breadth of stock holding, the more likely it is that young renting households will receive stock market induced capital gains. This increase in wealth allows the household to meet the lender imposed downpayment constraint for owning. The significant increase in stock prices has certainly increased the wealth of the baby boom and older generations. This increase allows these generations to transmit part of that gain to their children who are old enough to own a home through gifts and inheritances. U.S. data reveals that 10% to 20% of young adults (aged 20 to 29) receive significant financial gifts from their parents, the mean amount sufficient for a downpayment on a house.

A second set of factors are demographic. The aging of the baby boom has led to a transition of this group from primarily renters to homeowners over the last decade. Prior to the early 1990s, a number of demographic trends had significantly offset the age impact on the homeownership rate, but in recent years these trends have been significantly dampened. These effects include the rising age at first marriage, divorce rate and immigration rate. Each of these trends was stabilizing by the end of the 1990s. It is also possible that new forms of homeownership (condominiums) and more liberal lending (or better credit scoring methods) are drawing more nontraditional households into homeownership. As well, the typical nontraditional household is changing. A few decades ago, perhaps you had to be married to be upwardly mobile in a large business, whereas today marital status is less important. If more upwardly-mobile people are choosing to form nontraditional households, we might well expect to see more homeownership among them (as part of being upwardly mobile).

- *Marriage and divorce.* Ownership rates are markedly higher for married couples than for single households. Thus increases in the age of first marriage and in the divorce rate tend to reduce ownership. For decades, both the age at first marriage and the divorce rate have increased. The rates of increase in the age of first marriage and the divorce rate have slowed substantially during the 1990s. Thus, these forces to lower the aggregate ownership rate have been greatly dampened.
- *Immigration rate.* The rate of immigration to the U.S. remains high. Approximately 7.5 million people immigrated to the U.S. in the 1990s. New immigrants tend to be renters. The homeownership rate for noncitizens is only 33% and it is lower the more recent is the date of immigration. The high immigration rate during the 1990s has tended to reduce the ownership rate.

A third set are other factors that affect homeownership rates. Empirical evidence suggests the following are important determinants of homeownership

- *Mobility and transaction costs.* Transaction costs affect the probability of homeownership. Typically, transaction costs in home purchase are about 10-13% of house value. For a short expected duration of

stay in a locality, these costs substantially raise the user cost of ownership compared to renting, thus discourage owning. In practice, renting is preferable if the household expects to stay not more than two years, and sometimes even for stays of three or four years. Linking this observation with our earlier observations about demographic changes (fewer children, fewer married couples) suggests that the demographic changes have increased the mobility of the population. Thus, with higher expected mobility, there will be fewer homeowners. That is, the demographic effects may work through transaction costs. Unfortunately, we do not have good data on household mobility rates in the 1990s. The robust economy has likely had offsetting effects on mobility. There have been relatively fewer laid off workers and with the low unemployment rate, jobs are relatively available locally. The impact is to lower mobility. However, the strong economy has also created many jobs, possibly requiring relocation of workers. Increased mobility tends to reduce the homeownership rate because the annualized transaction costs is greater (this would tend to make ownership rates lower in the U.S. than in less mobile countries such as Europe). The transaction cost of buying a home has been relatively stable. Changes in technology have likely reduced this cost modestly. The small changes that have occurred during the 1990s have tended to increase homeownership.

- *Discrimination.* There are no measures of the amount of discrimination present in the U.S. housing market; however, experimental evidence using "testers" suggests that it continues to occur. Testers are actors trained to be a potential home purchaser and the experimental framework uses testers of various race/ethnicities. Discrimination is illegal, but enforcing existing laws is difficult. Current laws prohibit discrimination in the mortgage credit, brokerage, and housing markets. Recent studies continue to find that the ownership rate is lower for Blacks and Hispanics than for Whites after controlling for the economic and demographic factors that affect the tendency to own. Thus, it appears that discrimination continues to reduce the rate of homeownership.
- *Information.* Purchasing a home is a complex transaction. The amount of information known by a household about this process is certainly a factor in whether the household pursues the homeownership option. Home ownership counseling has been increasing among low-income households, especially in the 1990s.

Emerging trends in policy and market mechanisms

Another factor underlying the increase in homeownership rates has been a renewed focus on homeownership in housing policy. President Clinton has led a coalition of major government and private enterprises that is implementing policies to raise the homeownership rate: This initiative, called the National Homeownership Strategy (NHS), was formally announced in 1994. This NHS identified 100 actions to increase the homeownership rate to 67.5% by 2000 which it ultimately did accomplish, thus adding 8 million new homeowners on net. Between 1994 and 1998, the increase in homeowners was approximately 4 million households, although the fraction of this that might be attributable to the NHS alone is not clear. Under the NHS, various government (federal, state, local), quasi-government, charitable, and private organizations work to increase homeownership. There are 130 local homeownership organizations and 65 national organizations in the NHS. The NHS encouraged the formation of partnerships between various levels of government, between Government Service Enterprises (GSEs)—namely Fannie Mae and Freddie Mac—and state and local government or private organizations, and between HUD and local organizations. Although led by the Department of Housing and Urban Development (HUD), the NHS is highly decentralized. For some activities, HUD provides either direct leadership or a key facilitating role. For other activities, the partnership does not involve HUD at all. For many of the 100 actions, even a simple list of activities would be difficult to produce because of the decentralized approach adopted.

NHS strategies fall into six clusters: production, financing, building communities, opening of markets, education, raising awareness. No systematic evaluation of the post-1994 impact of the various NHS activities has occurred. In part, the lack of evaluation is because the time period has been so short and also because the program is so decentralized. Some of the programs are long term in nature (building communities), while others have been implemented and should have had an immediate impact

(financing). Policies with an immediate and potentially large impact are primarily in the financing, opening of markets, and education categories.

Important among the NHS strategies are the following thirteen.

The first is to simplify and standardize mortgage approval, credit checking and certification. This entails streamlining and automating the origination process: e.g., electronic data interchange, whole loan-book entry system, and electronic repositories for property transaction information. Such efforts reduce costs and eliminate duplication. This strategy also entails reducing processing time by procedural redesign and technological improvement. The homeowner mortgage approval and administration system is dependent upon timely receipt of information: e.g., income, employment, credit, and downpayment verification and property value assessment. The strategy also entails finding alternative methods of processing title insurance, appraisals, and legal services to reduce transaction costs for the homebuyer without increasing the risk to the mortgagee. The strategy seeks to standardize homebuying settlement procedures. Currently, each lender writes closing instruction letters setting out its requirements, forms, certifications, handling mandates, and other needs. Each letter addresses the same topics, but in a unique format and language. If such letters are standardized in format and language, settlement agents could more easily find and understand information pertinent to each aspect of the home purchase. The strategy also seeks to promote bulk purchasing of homebuying settlement services such as title insurance, appraisals, and legal work, to standardize foreclosure requirements across states, and to expedite the turnaround of foreclosed units. The list above includes many mechanisms. Two specific examples here are the following.

- Freddie Mac's Loan Prospector service became available in 1995. Loan Prospector is an underwriting service that integrates statistical risk assessment techniques with modern technology for the collection of information about the loan, the borrower, and the property. Some lenders report that using Loan Prospector saves them US\$ 300 to US\$ 650 per loan application. By early 1996, it is reported that as much as 20% of Freddie Mac's loan volume was coming through Loan Prospector. At the same time, Freddie Mac has been more supportive of the use of credit scoring (which is integral to Loan Prospector) than have either Fannie Mae or FHA. In addition to Loan Prospector scoring, the private sector has also been developing its own credit scoring systems: e.g., the Loan Performance Score measure offered by Mortgage Guaranty Insurance Corporation and pmiAURA developed by PMI Mortgage Insurance.
- Fannie Mae's "Showing America a New Way Home" program, started in 1996, experiments with underwriting. One experiment involves the streamlining of appraisals by use of alternative documentation methods.

A second NHS strategy is to reduce downpayments. Lender-imposed downpayment is critical to the timing of the consumer's first purchase of a home. Such households, typically young, have less wealth and relaxing the downpayment constraint can speed the transition to ownership. Minority households also have less wealth (age adjusted), making ownership difficult to attain. FHA, Fannie Mae, and Freddie Mac have instituted programs to reduce the required downpayment. The NAR surveys of first time owners suggest that the median loan-to-value ratio (LTV) has increased from 87% in 1989 to 95% in 1995. Examples of such initiatives include the following. The initiatives below are fine examples and a high priority in thinking about improving access to homeownership.

- Freddie Mac's "103 COMBO LOAN" is a 103% LTV: that is, a first mortgage for 97% plus a second mortgage for the remaining 3% plus any closing costs. This is a US\$ 100 million pilot program that is expected to reach about 1,000 borrowers.
- GE Capital's mortgage insurance for 97% LTV. Introduced in 1994, GE Capital offers this to borrowers who have completed the Community Home Buyer's approved education course.
- The Neighborhood Advantage Zero Down loan program offered by BankAmerica Mortgage (San Francisco). Default losses of up to 3% on the 100% LTV 30-year fixed-rate loan is covered by the parent, BankAmerica, and any residual loss by GE Mortgage Insurance. BankAmerica mortgage has

set aside US\$ 500 M for this program, and the limit on an individual mortgage is US\$ 227,150. Borrowers must have good credit (an acceptable FICO score or Omniscore) and an annual household income that does not exceed 80% of the median income for its metropolitan area. A delinquency counseling services is provided by an outside nonprofit agency.

- Freddie Mac's Affordable Gold 5 (5% cash down, high MSR) and Affordable Gold 3/2 (3% own cash down, 2% from other sources). Early on in the evolution of this measure, the main concern was whether this would simply result in increased rates of foreclosure. However, the advent of new analytical tools (e.g., Freddie Mac's Gold Measure and Loan Prospector) have helped to determine how underwriting guidelines can be modified without putting targeted-lending families in undue danger of foreclosure.
- The Center for Community Self-Help (North Carolina) has proposed a zero percent soft second mortgage. This proposal is modeled on the existing Low-income Housing Tax Credit program for multifamily rental housing. In return for foregoing interest payments, investors receive a credit against their federal taxes: the credit is 9% of the loan amount per year for 10 years, and the full principal is to be repaid within 15 years.
- The proposed "Universal Account" is an integrated account wherein customers pool all of their assets for the purposes of obtaining loans. In this way, lenders can eliminate the downpayment requirement for some first-time homebuyers and allow existing homeowners to borrow more than their home is worth. A related product is the 125% LTV mortgage.
- A program offered in Michigan with support from Freddie Mac permits households to include up to 1% in the form of sweat equity.

A third NHS strategy is to promote flexibility in mortgage underwriting criteria.

- Freddie Mac has modified its underwriting and servicing guidelines. Borrowers are allowed to spend as much as 33% per month on housing in a 95% LTV loan (up from the 28% ratio that had previously applied). Maximum debt for borrowers has been expanded from 36% to 38% of household income. Creditworthiness can now be evidenced through regular payments such as for utilities or rent.
- FHA mortgage insurance eligibility now takes into account overtime, bonuses, and part-time earnings in borrower income, disregards debt extending under 10 months and eliminates childcare as a recurring debt, and allows use of cash saved at home or in private home savings clubs.
- Section 245 of the U.S. FHA enables HUD to insure graduated-payment mortgages for households that expect their incomes to rise substantially.

A fourth NHS strategy is to increase savings for downpayments. An alternative strategy to lowering the downpayment requirement is for households to increase their savings for a downpayment. This increase can be achieved by increasing the incentive for household savings or otherwise subsidizing the downpayment.

- The Federal Home Loan Bank has developed an Affordable Housing Program that provides subsidies for first time homebuyer's savings for a downpayment.
- Beginning in 1998, the U.S. has allowed tax-free, penalty-free withdrawals from IRAs for use as a downpayment for first-time homeowners. This plan is similar to the Canada's Home Buyers Plan (HBP), with the withdrawal limited to \$10,000. There are, however, reasons to believe that the plan will have decidedly less impact on homeownership than the HBP. First, tax-free status on the IRA can be achieved without using the funds for the purchase of a house. Second, the funds have to be in the account for five years for the withdrawal to be tax-free. Current estimations are that the mean investment period in the Canadian tax-free accounts for first-time purchasers was only 1.5 years, even though contributions for up to five years were tax free. The five-year restriction would therefore bind on most potential first-time buyers, causing their withdrawals to be taxable.
- Allowing use of cash saved at home or in private home savings clubs as part of downpayment toward homeownership.

A fifth NHS strategy is to reduce discrimination in the brokerage market, the mortgage market, and the mortgage insurance market. Discrimination—occurring through mechanisms such as racial steering—reduces the opportunity set of available homes for minorities.

- The NHS and HUD just signed an agreement with the National Association of Realtors regarding reducing discrimination in the brokerage market and increasing the number of minority real estate agents.

A sixth NHS strategy is to increase outreach to underserved groups.

- The federal government has promoted homeownership counseling since the 1968 Housing and Urban Development Act, and has helped fund it since 1974. The Fannie Mae Foundation, for example, uses multilingual brochures, multimedia advertising, local home buyer fairs, support for community organizations, and other strategies to help families understand both how to become homeowners and how to protect themselves in the process.
- In partnership with local organizations, GSEs and HUD have greatly increased their outreach to groups that have low ownership rates. The mechanisms include homeownership fairs, television advertising, and National Homeownership week. Targeted groups include immigrants (with the education program now occurring in multiple languages), African-Americans, and low-income households generally. Recognizing that such individuals often live in impoverished areas, Fannie Mae has, for example, created a Housing and Community Development division that helps to boost affordable housing in conjunction with neighbourhood renewal. At the same time, home ownership in low-income neighbourhoods has its risks. Home ownership brings the possibility of default, the financial demands of maintenance, the reduction in alternate investment opportunities, an increased exposure to fluctuations in local economic conditions, and a drastic reduction in the liquidity of personal wealth.

A seventh NHS strategy is to remove barriers to mortgage financing for small and starter homes, manufactured homes, and rural homes. One barrier to financing mobile homes, for example, is that they have been considered a durable good like a refrigerator or car, and thus riskier than a house/land, thus requiring a higher interest rate. In the case of small starter homes—or other nonstandard homeownership schemes that might appeal to first-time homebuyers, such as two-family homes and homes with accessory apartments—the barrier might be lending and appraisal guidelines that make mortgage financing hard to get. In the case of rural housing, the barrier might be the reluctance of national banks to make mortgage loans in nonmetropolitan areas. One possibility here is to encourage local lenders to become FHA, VA, USDA, Fannie Mae, and Freddie Mac approved lenders. A second possibility is to explore options to enable more lenders to pool mortgages from rural areas.

- Since 1992, federal legislation has directed the secretary of HUD to establish affordable housing goals for the GSEs (Fannie Mae, Freddie Mac).
- Promote improved access to financing for manufactured homes. Under Title I, HUD insures loans to finance the purchase of manufactured homes, and lots for the homes. Proposals have been made for an improved and simplified financing program as well as simplify the FHA 203(b) program for manufactured housing.

An eighth NHS strategy is to modify the system of income taxation. Tax policy changes can have a large impact on homeownership, but may involve a substantial tax expenditure. Tax policy is a high priority in an examination of improving access to homeownership.

- The U.S. tax code refers to this as a mortgage interest "deduction". All homeowners have the option of deducting mortgage interest from their federal income taxes. The alternative is to take the "standard deduction", this an amount that varies with the filing status (married, single). The standard deduction is sufficiently large such that a household making a low interest payment would select the standard deduction and reject "itemization" (listing of separate deductions including mortgage interest). Those with low interest payments include households with low valued mortgages (either low initial house purchase price or near the end of their mortgage life), and

those with a relatively low mortgage interest rate. Thus, not all households benefit from the mortgage interest deduction and the Tax Act of 1986 reduced the percentage of household beneficiaries significantly. Finally, given that the choice between itemizing deductions and taking the standard deduction is all or none, some households find it optimal to itemize, thus benefiting somewhat from the mortgage interest deduction, but not fully by the amount of the deduction because itemized deductions exceed the standard deduction by less than the amount of the mortgage interest deduction.

- Prior to the tax reforms of 1986, there was taxation of capital gains from the sale of a principal residence. However, capital gains on housing often escaped taxation in practice. There were three loopholes. One was that the tax was deferred if a house of higher value was purchased within two years. The second was that, if the owner was 55 or older, an amount was exempted from taxation (about US\$ 125,000). The third is that, if a house was inherited, it was rebased so that the heirs paid no capital gains tax on previous gains. However, in some cases, capital gains taxes would otherwise be payable, and the policy thus encouraged homeowners to buy a more-expensive homes when they moved. Two impacts were noted: a marginal decrease in homeowner mobility thus avoiding the tax; an incentive for households to move from cheaper houses in the central city to expensive homes in the suburbs. Both results were judged to be bad. After the mid-1990s, federal tax policy exempts US\$ 500,000 in capital gains on housing if a married couple stays at least two years. In effect, this change eliminates the capital gains tax on housing. Homeownership is thus encouraged.

A ninth NHS strategy is to offer interest subsidies. The primary program is tax-exempt Mortgage Revenue Bonds. These are state programs where mortgage loans are available from the state, but with lower interest rates than the private market. They are targeted by states toward low-income households. The Mortgage Revenue Bond program involves a substantial tax expenditure.

- Subsidies to mortgage costs for targeted households, including continuation of the Mortgage Revenue Bond program.

A tenth NHS strategy is to pursue risk-based pricing. The FHA has proposed a pilot program that bases the mortgage rate on the credit quality of the borrower. Risk-based pricing uses the mortgage score, which combines such elements as the FICO score, LTV ratio, local economic prognosis, and other factors. Risk-based pricing is already being facilitated by the automated underwriting systems developed by private mortgage insurers, Fannie Mae, and Freddie Mac. Some good-quality risks presently go to the FHA and provide a cushion in its insurance fund for poorer risks, but Fannie Mae and Freddie Mac's automated underwriting is increasingly able to identify and lure away these relatively good borrowers via risk-based rates. Interestingly, risk-based pricing is also being used to pick out marginal borrowers from whom lenders need not require mortgage insurance. By saving such consumers the mortgage insurance premium, risk-based pricing makes borrowing more affordable.

An eleventh NHS strategy concerns the pricing of mortgage insurance. In Canada, mortgage insurance is currently available only through CMHC and one private insurer, GE Capital. CMHC prices its insurance as a flat upfront premium which is a fixed proportion of the loan amount: the proportion rising with LTV. Does the U.S. approach better enable access to home ownership? In the U.S., insurers typically use a combination of upfront fee plus mortgage-rate markup, although there has been much innovation in recent years: see Culver (1998). The U.S. scheme appears to benefit households who repay their mortgage early (that is, prepay). At the same time, however, the U.S. scheme encourages adverse selection: that is, those households enjoying strong capital gains can cancel their mortgage insurance early through refinancing, or if their equity reaches 20%. Thus, U.S. insurers must charge more for this adverse selection. In fact, FHA mortgage insurance requires an upfront fee plus 9 years of ongoing mortgage fees.

A twelfth NHS strategy is to make it easier for credit-impaired consumers to refinance their housing. It may help explain why the overall home ownership rate is higher in the U.S. than in Canada.

- Fannie Mae has developed streamlined refinancing procedures that make it easier for sub-prime borrowers to refinance existing Fannie Mae loans. These include: no income or employment verification; no asset verification; no testing for debt-to-income ratios; no required credit report; no minimum credit score; no maximum combined LTV ratio when a first and a second are involved; no restriction on the age of the refinanced loan; no restriction on property types; no appraisal if lender warrants that the value has not dropped since origination of existing loan.

The thirteenth and final NHS strategy is the sale of public housing to homeowners. The amount of public housing sold under these programs, however, has been trivial to date; the topic is much discussed, but with little action.

- The Turnkey III Homeownership, introduced in 1968, is a lease-purchase program, available to public housing tenants wherein 13,800 units had been developed by 1983.
- Section 5(h) Homeownership Program was added to the U.S. Housing Act in 1974. This section allows Public Housing Agencies and Indian Housing Authorities to sell individual units and developments to residents of public housing, and allows HUD to continue servicing the debt on the original acquisition, construction or modernization cost.
- In 1987, Section 21 was added to the act to permit Resident Management Corporations that could undertake ownership of a public housing project and resell the individual units to current public housing residents and other low income families.

While the provision and financing of housing in the U.S. is broadly similar to that of Canada, this national profile has served to identify important differences. Eight of these were selected by the Advisory Committee for further study: (i) universal accounts; (ii) mortgage revenue bonds; (iii) Freddie Mac's Affordable Gold Programs, (iv) Automated underwriting and credit scoring, (v) the Mutual Help Ownership Opportunities for Aboriginals program, (vi) NAR's "One America" Training Program, (vii) HELP and homebuyer counseling; (viii) risk-based underwriting.

Universal Accounts

A Universal Account (UA), although just a concept at present, is thought to be an account with a financial institution wherein the customer pools all assets and liabilities to create a one-stop line of credit. Components of a UA would include mortgage, credit card debt, home equity credit, as well as various types of real and financial assets. It is envisioned that a method similar to credit scoring would be used to evaluate UA. Collateral for loans would include homes, autos, and financial assets in the account. It is envisioned that secondary markets for the loans in the account will continue and be similar to current secondary mortgage markets. Pricing in the secondary market would be modified to account for the risk of default on various debts within the UA including auto loans, credit cards, etc. Proponents of UAs foresee a unified financial statement and electronic record as key components. Given the various sources of collateral held by a household and its income and credit repayment record, a household would be given a loan limit that could be used for purchasing a home, auto, etc. Proponents argue that a 100% LTV on the home would be acceptable because the loan limit is established in the context of the household's complete portfolio and overall debt service capability. LTVs would not be important; rather, LTAs (loan to asset ratios) would become a relevant lending criterion. Defaults on repayments of any loan in the UA would allow foreclosure on the house or any other UA asset.

Around the globe, banks have expanded the notion of the traditional bank account to include a greater array of assets and liabilities: that is, to integrate stocks and other financial securities with bank deposits, insurance, credit cards, mortgages and consumer loans. For example, at present, it is not uncommon for many banks to offer both secured and unsecured lines of credit. How close do these come to a UA? Citibank offers an account (CitiGold) which is a step in the direction of a UA. CitiGold

provides a comprehensive range of banking services including loans, mortgages, credit cards, and investments in stocks, bonds, government securities, options, etc. It links balances on debt accounts (mortgage, credit card, other personal credit lines and loans) with balances in asset accounts (checking, savings, money market, brokerage, and retirement). This does not allow customers to use Citibank assets to forego downpayment or maximum LTV underwriting requirements when obtaining mortgages. However, the account does give customer preferential mortgage rates and fees. The targeted group is quite selective. The opening balance is a minimum of US\$ 100,000 in securities, deposits and loans. If a Citibank mortgage is held, the minimum opening balance is US\$ 250,000. This package has some aspects of a UA, but remains a separate concept. The Virgin One account in Great Britain is closer to the UA concept because customers can use the equity in their homes as collateral for a variety of personal loans. To qualify, a customer effectively pools savings, investments, and mortgage debt into a single One account with a single monthly statement.

A measure somewhat akin to a UA was the 125% LTV mortgage, which was described in the U.S. as the hottest mortgage product when introduced in 1997. It is sold primarily as a "loan consolidating" device. They are primarily second mortgages and have been heavily promoted by telemarketers; there have been only a smattering of originations in the first lien market. Lenders treat the second mortgage of the 125% LTV package as an unsecured loan and price it accordingly. That is, the interest rate will be greater than on a typical second mortgage. Generally, there is a restriction that the property must be owner-occupied. An estimate of issuance in 1997 is US\$ 7.4 billion. During 1998, it is expected to be about US\$ 6 billion. Expectations are about US\$ 5 billion for 1999. The targeted audience is households with high levels of credit card debt. The 125% loan extends their repayment period up to 25 years, providing some current monthly payment relief. This is the greatest attraction of the 125% loan to borrowers. There may be a tax benefit due to increased mortgage deductibility on federal income taxes; however, the IRS has issued specific rulings in an attempt to limit abuses. Lenders advise 125% borrowers to consult their tax advisor to determine the amount of deductibility.

While the above examples provide some of its features, a pure UA does not yet exist and would necessitate changes in federal legislation. One roadblock is current tax law, it is not able to handle the comprehensiveness of anticipated loans in UAs: Tax expenditures (subsidies) that previously had been targeted to households embarking on homeownership would now be available to support an unlimited variety of consumption and household finance. A second question potentially involving changes in law is: what types of assets could be included in UAs? For example, could a retirement account be included, where inclusion implies that it would be pledged as collateral for the loans?

The UA concept raises a myriad of other questions such as how the determination of the loan interest rates. It is not clear how UA loan pricing will take into account the nature of the collateral. Given the comprehensiveness of a UA, if a relatively risky asset backed the marginal loan, the quality of prior loans would be affected. This interdependence also raises questions about how secondary markets would operate. One possible scheme would be to establish classes of collateral. For example, the first class could include up to 80% of current house value, 60% of stock value, and 40% of auto value. Loans up to this aggregate value would be priced at the lowest interest rate. The second class of collateral could include the range of 80-90% of house value, 60-80% of stock value, and 40-60% of auto value. Loans in excess of the value of first class collateral would be priced at a higher rate. Similarly, third and higher class collateral could be established as well as unsecured debt (e.g. similar to current credit card debt), and priced accordingly. It is anticipated that consumers would repay loans in UAs starting with those with the highest interest rates. This repayment scheme is a clear advantage of UAs because households must currently repay all forms of debt simultaneously, implying they are repaying low cost mortgage debt while holding higher cost credit card debt. Another advantage to consumers would be that increases in the value of collateral (e.g. an owned home) would shift some of the higher priced debt into lower cost categories. Of course, reduced value of collateral (e.g. an owned auto) could increase the cost of debt. We anticipate annual reevaluation of the value of collateral would be needed. Freddie Mac and Fannie Mae are looking at ways in which they might purchase mortgage debt backed by non-real estate assets.

Goals, targets, and barriers

What barriers to homeownership are addressed by UAs? In the context of homeownership, UAs are aimed at consumers who are thinking of purchasing a (or another) home, but who do not want to liquidate assets in order to do so. Proponents argue that the comprehensive UA approach will allow lenders to pool various risk sources. The risk of a decline in house value is likely not highly correlated with the risk of a loss related to an auto. Reduced risk would lower (marginally) loan costs, and in this respect UAs might help reduce MSR. In the context of homeownership, UAs are aimed at consumers who are thinking of purchasing a (or another) home, but who do not want to liquidate assets in order to do so. Sometimes, the reason for this is capital gains taxation on the disposal (realization) of those assets. Alternatively, the other assets might not be ripe for sale or would be costly to sell just now. A second kind of customer attracted to UAs might be persons who already own a home plus other assets; for them, UAs might not directly attack a barrier to homeownership. Indirectly, however, UAs may spur homeownership by assuring prospective first-home buyers that should they need cash for a business or other use at some later stage they will be able to borrow readily against their housing assets. By removing the LTV limit and by giving homeowners more flexibility in their finances, UAs have the potential to put homeownership within reach of a broader group of households.

UAs pose no direct costs to government because this is purely an industry initiative. However, mortgage interest deductibility in the U.S. may result in a substantial tax expenditure. Current tax law is not able to handle the comprehensiveness of anticipated loans in UAs. In the U.S., mortgage interest is deductible up to the current value of the home. With first mortgage LTVs being less than 100%, all first mortgage interest is deductible (assuming current house value has not fallen below the loan amount). Given that second mortgages are now available with total LTVs greater than 100%, the IRS has ruled that mortgage interest on LTVs above 100% is not deductible. Without tax law change, UA loans greater than house values would be treated the same way. Once a homeowner, the UA would eliminate the need for a household to seek a home equity mortgage, with the accompanying tax advantage, for additional purchases. A household desiring an additional loan would request a new loan limit, the LTA would be calculated, and the loan would be priced. The tax rules for 125% LTVs are clear and the IRS has issued a warning: interest accruing on the balance above the "fair market value" of the house is not tax-deductible. Another question is what practice holders of 125% LTVs will use when filing taxes. Congress has asked the General Accounting Office to look into the rapid growth of 125% LTV lending. The concern is the possible negative effects on soundness of financial institutions issuing mortgages not backed by real estate equity. Another concern is the potential loss of tax revenues from illegal mortgage deductions.

Closest equivalent in Canada: past or present

The absence of mortgage interest deductibility in the Income Tax Act means that this potential barrier to linking Universal Accounts with homeownership lending is not present in Canada. Canadian banks and other financial institutions are progressing quickly toward adopting many features associated with Universal Accounts. In 1999, the Bank of Nova Scotia, for example, introduced a ScotiaLine VISA account that provides relatively high credit limits at interest rates that are closer to conventional consumer loans than to credit cards. In the same year, it also introduced a Total Equity Plan in which homeowners use a floating collateral mortgage on their homes to help finance other purchases (e.g., an automobile). Also in 1999, Manulife Financial offered a competing product (Manulife One) that similarly allows pooling of debt using the home as equity.

Mortgage Revenue Bonds

Under the Internal Revenue Service Code, sections 103(a) and 103(b), the interest paid on Mortgage Revenue Bonds (MRB) is exempt from federal taxation. This substantial subsidy (tax expenditure) means

that MRB interest rates will be lower than other investments of similar risk. Hence the borrower can in turn lend the MRB funds out in the form of mortgages on individual owner-occupied homes at below-market interest rates. State housing agencies issue the bonds and run the MRB program. Although the precise form of an MRB varies from state to state, they are not in general "full faith and credit" bonds; instead, they are backed by the revenue stream generated by mortgages. In 1960, New York created the first state housing finance agency (SHFA): its mandate was to finance and develop rental housing. In 1968, Congress modified the Internal Revenue Service code to permit tax-exempt MRBs. In 1974, the Virginia SHFA became the first sell a MRB to finance mortgages for low-income homebuyers. By this time, 26 states had their own SHFA. In those early years, they used MRBs only sparingly; in 1977, MRB issues totaled under US\$ 1 billion. However, between 1978 and 1980, MRB funding increased abruptly as both state and local housing agencies got into the action; by 1980, the U.S. reached US\$ 10 billion in MRB issues. Total MRB production in 1997, including use of refinancing of past issues was US\$ 9.3 billion. This allowed the purchase of 20,754 new homes and 83,557 existing homes (104,311 total loans closed). The cumulative (since inception) MRB production through 1997 has been US\$ 129.5 billion. Through 1997, the total number of home loans generated has been US\$ 1.86 million.

The primary constraint on origination of MRBs is the federal limitation (cap) on the issuance of tax-exempt state and municipal bonds for all private uses. Private uses include MRBs, industrial revenue bonds, hospitals, student loans for college, hazardous waste disposal facilities, water and sewage, and multifamily apartments. MRBs made up 18% of the cap in 1997 while industrial revenue bonds were 20%. The cap is two-tiered (starting with 1986 legislation, modified in 1988, and continuing in effect to this day). For 21 smaller states, it is US\$ 150 million annually. For the other states, it is US\$ 50 per capita with the maximum being US\$ 1.6 billion in California. The aggregate cap on private-activity tax-exempt bonds was US\$ 15 billion in 1997. Note that in any year, MRB issuance may be greater than the cap because of carry-forward provisions and repayments of past MRBs. As it effectively funds the program through foregone tax revenues, the federal government carefully regulates the use MRBs. It caps the total amount of funds that can be generated annually, restricts the type of household that can participate, and targets certain geographic areas. These restrictions were revised and fine-tuned frequently during the growth period of MRBs: the 1970s and 1980s. Currently, eligibility restrictions are as follows:

- The applicant must not have owned a principal residence during the past three years; an exception is made for purchases in economically-depressed target areas.
- The applicant's income must not exceed 115% of the median gross income in the locality (MSA) if there are three family members. There are variations in the percentage with family size. There is no income constraint in targeted areas.
- The purchase price cannot exceed 90% of the area's average (110% in targeted areas). Local averages for home prices are calculated separately for new and existing homes.
- The property must be less than two acres.

MRBs created tension between the federal government, whose "blank cheque" financed the program, and the state and local governments, who see this as a no-lose strategy for promoting affordable new housing. In December 1980, Congress enacted the *Mortgage Subsidy Bond Tax Act (MSBTA)*. This legislation capped the volume of MRBs that each state could issue annually. It required that MRB loans be targeted primarily to first-home buyers and modestly-priced homes. It gave special treatment to specified target areas: places with concentrations of the poor or with chronic economic problems. It limited the profits that underwriters and others could earn from MRBs. The MSBTA initially stemmed the tide. In 1981, the volume of MRBs fell abruptly to US\$ 3.4 billion. However, by 1985, MRB borrowing had increased dramatically again, reaching US\$ 16.7 billion.

As part of the tax reforms of 1986, Congress further tightened the MRB program. The caps on borrowing were further reduced for each state, and MRB loans had to be more targeted to lower-income households and modest housing. Amendments in 1988 further restricted MRB loans to small families and introduced "recapture" whereby some households must repay part of the subsidy out of the increased

value of the home upon resale. With each of these sets of amendments, the dollar volumes of MRBs were initially "knocked back", only to recover in the next couple of years. By 1990, new MRB issues totaled US\$ 12.4 billion. By this stage, refinancing had become a significant factor in new MRB issues, as the SHFAs had to roll over retired bonds against which there were still mortgage loans outstanding. As of 1997, the federal cap on MRBs issued for new mortgages was US\$ 2.7 billion, this being 18% of the total US\$ 15 billion cap on tax-exempt private-use bonds: earlier years are shown below. The decline in 1993 is explained by legislative activity; specifically, the authority to issue MRBs lapsed on June 30, 1992 and was not reinstated until August 1993. State housing authorities made raising the cap their highest priority political agenda item. The argument for change was that the cap was never adjusted for inflation. In 1998, new federal legislation raised the cap in steps, beginning in 2003 and completed in 2007. By 2007, the cap will be 50% greater than in 1998. That is, for any state it will be the greater of US\$ 225 million or US\$ 75 per capita. The aggregate cap for private activity bonds will rise to US\$ 23.8 billion. If the MRB share remains at 18%, the annual new amount of MRB originations will be US\$ 4.3 billion.

Table 35 Federal cap (billions of current dollars) on MRB's issued for new mortgages

1997	2.7
1996	2.7
1995	2.6
1994	1.8
1993	0.5
1992	2.0

An MRB program has the potential to substantially improve access to homeownership, at least among households that find their current incomes too low to afford conventional mortgage payments. However, there are two important wrinkles that reduce the range of households eligible to participate.

- One is the introduction in 1990 of a "recapture penalty" for MRB mortgage holders. If the borrower's income increases more than 5% annually above the local area's income limit, the borrower must pay a federal tax up to half of the profit from reselling the house if held for less than 10 years. The purpose of the recapture penalty is to reduce the use of MRB mortgages by young households who have strong potential income growth prospects; e.g. young college graduates moving from renting to owning. Note that this group is one of those most likely to want to participate in the program. They could meet the wealth constraint from personal savings or parental help and, anticipating future income growth, prefer to own than rent; thus, they are relatively likely to fail to meet a mortgage lender's monthly debt payment to current income constraint. The recapture penalty reduces their demand for MRBs. As a result, the MRB program is targeted mainly at low-income households with at best moderate income prospects, and thus likely increases the overall ownership rate only modestly.
- The second is that MRBs are priced in the market by the quality of the mortgages as well as their tax-exempt status. This pricing imposes a constraint on the state housing agencies. The riskier the group of households that receives mortgages from MRB funds, the higher the MRB interest rate offered to them. Because state agencies try to keep the interest rate low, there is an incentive to eliminate risky households from eligibility under their assisted homeownership programs.

In the U.S., there is ongoing debate as to the net impact of MRBs on mortgage lending activity. How many households with MRB mortgages would have purchased their homes anyway (and how much later in their housing careers) if the MRB program had not existed? Estimates vary including, as a maximum, the total amount of MRBs and, as a minimum, zero. The zero case occurs when MRBs simply substitute for conventional mortgages that would otherwise have been obtained by eventual MRB mortgage holding households. The maximum occurs when there is no substitution. This issue also involves the eligibility constraints that determine which households can participate. In a case study of Arkansas in 1983, Durning (1992: p. 106) reports that over 60% of MRB subsidy recipients were qualified to receive FHA loans, and over 50% were eligible for conventional loans. While the state agencies might not have recognized in the 1970s that demand for MRB mortgages would be strong, we don't see any outcomes

that would surprise an economist. Pat Hendershott, in 1981, predicted a huge demand for MRB subsidized mortgages and this was the actual outcome in the 1980s until a cap was imposed. The strong demand by “yuppies” was easily foreseen. There is a concern that households will change their behaviour so that they can become eligible for an MRB mortgage and its subsidized interest rate. This could cause nonoptimal behaviour by those trying to qualify and by those awarded an MRB backed mortgage. Examples include distortion of a household’s labor force decisions, choice of residential location, and tenure in an owned home. However, there are no estimates of the size of the consequences.

Goals, targets, and barriers

Households targeted for mortgages funded from Mortgage Revenue Bonds usually have sufficient wealth to make the downpayment on a home purchase, but their monthly income is not sufficient to make regular payments on a mortgage at a market (unsubsidized) rate of interest. The subsidized mortgage interest rate on a MRB-funded mortgage reduces both the debt cost and the household’s MSR, making the purchase of the desired house more feasible. That is, for target households, MRBs relax the “debt payment to income” constraint imposed in conventional lending. Empirical evidence suggests that many households with low current income delay or forego purchase of a home. MRBs can be thought to focus on two target groups: (1) those with a low income now but good income prospects for the future, and (2) those with a better income now (although not sufficient to afford an unsubsidized mortgage) but without the prospect of a much-higher income in the future. For the first of these groups, the MRB program speeds the transition from renting to homeownership, subject to the dampening effect of recapture (discussed above). The result for this group is a permanently higher homeownership rate (where homeownership is measured as a snapshot at a point in time), although it does not convert lifetime renters to owners. The second group consists of households who would otherwise remain renters for their lifetime. By lowering the cost of owning relative to renting, MRBs tilt their decision toward ownership. Some households, previously at the margin when choosing to rent rather than own, will now choose ownership.

Of course, a central question in any subsidy program is whether the benefits to society exceed the costs. The benefits to society—which are beyond the scope of this report—are the advantages gained by a marginal increase in the number of homeowners. The costs in this case are the tax revenues foregone (tax expenditure) on interest revenue received by the ultimate lender (the MRB bondholder). The subsidy implicit in the MRB program is the tax expenditure, and this varies with the marginal tax rate of the bondholder, which in turn depends on his/her income and circumstances. In a competitive capital market, the subsidy is the difference between the market interest rates for MRBs and taxable investments of comparable risk. When marginal tax rates fall, as they did upon tax reform in 1986, the gap between these two rates shrinks. How much does the MRB program cost the federal government? This issue has been hotly debated. Kaufman (1981) contains a couple of relevant articles. One is Pat Hendershott’s model and estimate. It yields a foregone tax revenue cost of US\$ 0.026 per dollar of MRB. Another article yields a cost of US\$ 0.013 per dollar of MRB. This second article does not account for the revenue loss caused by renters switching to owners, and the subsequent loss of tax revenues because of owners’ greater tax deductions resulting from the mortgage deduction.

Closest equivalent in Canada: past or present

There are no federal, provincial, or territorial equivalents to MRBs in Canada which can be used to facilitate access to homeownership. Since the Canadian recession of the early 1990s, governments have focused their attention on the need to exercise fiscal restraint and have been reticent to implement new types of tax expenditure mechanisms such as MRBs. Government tax authorities regard such tax expenditure programs as costly and less efficient than more-direct forms of government housing intervention.

Freddie Mac's Affordable Gold Programs

The Affordable Gold (AG) program is designed to ease the maximum LTV ratio criterion for consumers who are sufficiently strong on the other mortgage underwriting criteria. The AG program has three formal components. They are part of Freddie Mac's overarching program called "Expanding Markets Products" which is designed to better meet the needs of minority and other underserved market segments. The Affordable Gold Initiative was launched in 1992. At first, this consisted of the Affordable Gold 5 (AG5) and Affordable Gold 3/2 (AG3/2) schemes. The AG5 and AG3/2 programs have been revised since then, and a new program—Affordable Gold 97 (AG 97)—was introduced. These three programs are detailed in the tables below.

In recent years, Freddie Mac has added two more new mortgage products (103 Combo and Alt 97) to their Expanding Markets Products program. The 103 Combo Loan (introduced in December 1997) is a relatively small US\$ 100 million program that combines a 97% LTV with financing closing costs using a 15 year second mortgage at a 10% rate. Eligibility is restricted to households with income less than 125% of the county's median income. In May 1998, the *Alt 97* program was started. Again the LTV is 97%, but the mortgage insurance is reduced to 18% of the loan rather than AG97's 35%. There is a greater up-front fee, but this fee can be financed within the approved mortgage loan amount. However, the total monthly payment is lower. Thus, the targeted group is households with little wealth and difficulty meeting the MSR of 40% maximum. Manufactured homes are explicitly covered in this program.

Affordable Gold 5 (AG5) features

Target group:	Minority borrower who is wealth-constrained.
Dwelling type:	The property is expected to be a single family dwelling or condominium.
LTV:	95% maximum
Downpayment:	5%. The sources for the downpayment may include: borrower's personal funds; proceeds of a fully-secured loan such as from a U.S. registered retirement savings plan (401k); disbursement from a trust; the value of the land if already owned by the borrower; pooled funds from family members.
Closing costs:	Source of funds for closing costs may include: borrower's personal funds; gift from a relative if repayment is not required; grant from a nonprofit agency or community organization (i.e. a local partner in a homeownership program); an Affordable Second mortgage; a lender contribution of up to 2% of house value; a seller contribution of up to 3% of house value; an unsecured loan from a nonprofit agency (the loan interest rate must be no greater than the AG5 rate, no greater term, and no greater than 2% of house value).
Loan term:	15-30 years.
MSR:	Maximum is 40%.
Income:	No maximum limit on the borrower's income if the property is in (1) central city of an MSA, (2) a census tract with median family income less than 80% of the area's median income, or (3) in a census tract with at least 50% of the residents being Hispanic or nonwhite. Otherwise, borrower's income cannot exceed the area's median income (with exceptions for localities where housing cost are high).
Refinancing:	Is allowed under this program, but the LTV must be no greater than 90% for a refinanced loan.
Counseling:	Attending a homeowner education program is required unless the borrower was previously an owner or has sufficient wealth to make two months of payments.
Insurance:	Private sector mortgage insurance is required following standard Freddie Mac guidelines. Evaluation of the credit worthiness of the borrower is required, either through Freddie Mac's Loan Prospector automated underwriting system or their evaluation program called Gold Measure.

Affordable Gold 3/2 (AG3/2) features

Target group:	This program is not specifically targeted at minorities or central cities. The program targets households who are severely wealth-constrained, but are otherwise eligible for standard underwritten loans.
Dwelling type:	Same as AG5.
LTV:	95% maximum
Downpayment:	3%. The 2% can take the form of gifts, sweat equity, an Affordable Second (AS) mortgage loan, grants, or unsecured loans from nonprofit or government agencies.
Closing costs:	Same as AG5.
Loan term:	Same as AG5.
MSR:	Same as AG5.
Income:	The borrower's income cannot exceed 100% of the area's median income (with exceptions for high housing cost localities). There are no exceptions for central cities or census tracts with low income or a high percentage of minority residents.
Refinancing:	Same as AG5.
Counseling:	Attending a homeowner education course is required unless the AG3/2 is a refinance. Wealth sufficient to cover one month's expenses is required.
Insurance:	Private sector mortgage insurance is required at 35% of the loan if the term is greater than 15 years or 25% of the loan if the term is less than 15 years.

Affordable Gold 97 (AG97) features

Target group:	The target group is characterized by having good credit, stable income, a desire to buy a home, but insufficient funds for a conventional downpayment.
Dwelling type:	Same as AG3/2.
LTV:	97% LTV
Downpayment:	Required downpayment is 3%. The same sources of funds for the 3% borrower downpayment as in AG3/2 are eligible under AG97.
Closing costs:	Same as AG3/2.
Loan term:	Same as AG3/2.
MSR:	Same as AG3/2.
Credit score:	Good score needed.
Income:	Same as AG3/2.
Refinancing:	Same as AG3/2.
Counseling:	Same as AG3/2.
Insurance:	Same as AG3/2.

These affordable mortgage loan products are linked to and integrated with Freddie Mac's Loan Prospector automated underwriting system (discussed elsewhere in this report). Additional flexibility was added with the introduction of the Affordable Seconds (AS) program, a linked program to allow AG borrowers access to a second mortgage. Borrowers gain further flexibility through the AS program. Each of the three AG programs allows closing costs to be paid for by an AS loan. Thus, the target group is households that are severely wealth constrained. The loan limitation now becomes the "Total LTV" (TLTV). The TLTV including the AG loan and one or more AS loans is 105% of house value. There is no prepayment penalty for AS loans. An important option is that if AS payments are deferred for at least five years, then the AS payment can be excluded from the borrower's MSR. The source of AS funds may include nonprofit and religious organizations, employers, and all levels of government. In practice, use of an AS loan combined with an AG97 loan implies that a borrower needs no more than 3% of house value in funds for the downpayment and closing costs, and there are a variety of eligible sources for funds for this 3% downpayment.

The popularity of low-downpayment loans is demonstrated by the percentage of originations that have a LTV greater than 90%. In 1990, it was 8%. There has been steady growth in the percentage to 17% in 1993 and up to 25% in 1995 with subsequent stabilization.

Taken alone, a reduction in any one criterion for lending should lead to an increase in delinquencies. By 1994, AG3/2 and AG5 loans were going into serious delinquency (that is, by at least 60 days) at more than six and three times respectively the rate for all Freddie Mac-insured loans in that year. To mortgage lenders, the AG schemes were being viewed as a financing opportunity of last resort: the most-questionable loan candidates were steered to these products, and then approved under diluted underwriting standards. On the surface, the poor performance of the AG loans would appear to point to serious flaws in these pilot programs. Further analysis, however, suggested to Freddie Mac that the problem was the significant layering of risk. AG borrowers are generally weaker across all three dimensions of credit-worthiness: collateral value, credit reputation, and repayment capacity. With the introduction of its Loan Prospector software, Freddie Mac was able to better to collect, cross-check, and analyze data with respect to both mortgage application and mortgage repayment performance. As a result, Freddie Mac was able to identify new higher minimum criteria in credit reputation and repayment capacity that help to eradicate the kinds of losses incurred in the early years of the AG program. Freddie Mac treats information on the AG programs as proprietary, thus it is not available. However, Fannie Mae has engaged in a similar set of loan instrument innovations since 1994, including *Fannie 97* and *Flexible 97*. There have been US \$ 8 billion in loans under these Fannie Mae programs.

Goals, targets, and barriers

Lenders and mortgage insurers apply criteria in making mortgage approvals. Three common criteria are good credit record, viable Mortgage Service Ratio (MSR), and a low-risk Loan-to-value (LTV) ratio. Traditionally, within some range of flexibility, the lender/insurer declines to approve a mortgage application if the customer fails any one set of criteria. The purpose of these criteria is to define the maximum risk of default that the lender/insurer is prepared to tolerate. However, a customer might well fail one set of criteria, while being sufficiently strong on other criteria to constitute an acceptable level of risk. This slavish adherence to satisfying all sets of criteria constitutes a barrier to homeownership.

The target group, under Freddie Mac's affordable housing underwriting program initiatives, is a subset of families unable to qualify under traditional loan-approval standards; they are creditworthy and can afford the monthly payments associated with homeownership, but cannot afford the closing costs and the downpayment on a conventional mortgage. Fannie Mae uses the estimate that for every US \$ 400 reduction in funds needed at the closing, eligibility of minority households for a loan and thus homeownership increases by 8%. Studies of young minority households have shown that a surprisingly large percentage report negative wealth (unsecured debts exceed net asset values and cash) and a large percentage would be unable to meet a 10% downpayment requirement. Thus, young adults in their prime years of moving from renting to owning (25-34) are clearly advantaged by these AG programs.

The objective of the Affordable Gold (AG) program is to help lower-income families purchase. The trick here is to find the combination of borrower qualification criteria that permit a lower downpayment without increasing unnecessarily the risk of foreclosure. Allen & Van Order (1992), for instance, argue that high-LTV lending in general in the U.S. after 1980 has led to lender loss claims that exceed the mortgage insurance premiums collected. The stated incentives for offering the AG programs include increased homeownership rates, providing greater access to historically underserved groups, and maintenance of the quality of the investment quality of the loans. These should be taken at face value because there is a political mandate for meeting the needs of minorities, and Freddie Mac is operating in an environment competitive with Fannie Mae. The impact of the AG programs on access to homeownership is mainly to give access to homeownership to a household with good credit rating and MSR, but an unusually low level of savings/capital.

One question is whether this program has increased homeownership, or simply been a more flexible substitute for other loan programs. Although difficult to make a precise judgment, there is significant evidence that the program has been effective at the national level. National data reveal that there has been an increase in U.S. homeowners by 4.0 million from 1994 through 1997. It is well known that Black and Hispanic households have lower average and median wealth than white households. However, during this homeownership boom, 40% of the growth has been derived from new minority ownership (Black, Hispanic, Asian). In contrast, only 17% of the current stock of homeowners are minorities. Thus, recent growth in homeowners has come disproportionately from new minority owners. Lending to Black and Hispanic homebuyers grew more than 50% in 1993 through 1996, while that to white buyers grew 14%. Part of the increase in lending occurred as a result of demographic changes (e.g. growth in population). But at least half of the growth in lending to Black households is not accounted for by demographic changes. Further evidence that these programs have had an impact are data that reveal mortgage lending to low and moderate households rose by 30% from 1993 through 1996, while lending to middle and upper income buyers rose 20%. As noted above, the AG5 program is targeted at minorities and all AG programs are targeted at low wealth households.

Closest equivalent in Canada: past or present

Canada already has programs that are similar to the U.S. initiative. Since 1992, CMHC has insured mortgage loans for single dwellings whose LTV was in excess of 90% and up to 95% and duplex structures whose LTV was in excess of 90% and up to 92.5%. From 1992 to 1998, this program was entitled "First Home Loan Insurance" (FHLI) and was restricted to new buyers of starter homes and other home purchasers in hardship situations. In May 1998, the program was made available to first-time and previous purchasers of modestly-priced properties. On the surface, this program sounds similar to AG5. The principal differences are that, unlike AG5, the Canadian initiative (1) does include duplex properties, (2) does include sweat equity, (3) is not limited to minority borrowers, (4) has a maximum GDS of 35%–32% since 1997—versus AG5's maximum MSR of 40%, (4) does not include condominium units, and (5) does not require homebuyer counseling

First Home Loan Insurance (Feb 1992 - April 1998)

Target group:	Borrower buying a home in Canada, intending to occupy it as a principal residence, and not having owned a principal residence in Canada at any time during the previous five years. In the case of co-buyers, only one has to be a first-time homebuyer. There are exceptions to the five year eligibility requirement for hardship situations: e.g., formal marital breakup, sold previous dwelling for employment reasons and moved to a new geographic locale, or sold principal residence and sustained a loss of equity. In such exceptions, the net proceeds from the previous sale must form part or all of the required downpayment.
Dwelling type:	New or existing single or duplex. The maximum house price ranges from C\$ 125,000 to C\$ 250,000 depending on locale.
LTV:	95% of the lending value of the house: 92.5% of the lending value for owner-occupied duplexes.
Downpayment:	At least 5% (single) or 7.5% (duplex). The sources for the downpayment may include cash from own resources, RRSP, borrowed against liquid assets, gift, sale of other property, sweat equity, and other.
Loan term:	Minimum term is six months
MSR:	Borrower must not commit more than 35% (32% as of 1997) of the gross family income (GDS) toward payment of principal, interest, taxes, heating, and half of condominium fees (where applicable). Borrowers are qualified using the greater of (1) the current three-year mortgage rate or (2) the actual contract rate.
Insurance:	Processing fee ranges from C\$ 75 (basic) to C\$ 235 (full). Premium is 2.50% (single advance) to 3.00% (more than one mortgage advance)—3.75% since 1997—payable lump sum in advance. The premium may be added to the mortgage amount.

95% LTV Mortgage Insurance (Since May 1998)

Target group:	First-time and previous purchasers who have a minimum downpayment of at least 5% (but less than 10%) of the purchase price. Replaces the First Home Loan Insurance product. Applicant must intend to occupy the property as a principal residence.
Dwelling type:	Same as FHLI.
LTV:	95% of the lending value of the house: 92.5% of the lending value for owner-occupied duplexes.
Downpayment:	Same as FHLI.
Loan term:	Minimum term is three years.
MSR:	Same as FHLI except five-year interest rate is used for borrower qualification.
Counseling:	New efforts to expand participation in home buyers seminars and to distribute related publications and software to increase the knowledge of prospective homebuyers.
Insurance:	Premium is 3.75% (single advance) to 4.25% (more than one mortgage advance) payable lump sum in advance. The premium may be added to the mortgage amount.

Nominally, Canada has no program similar to AG3/2 and AG97. However, the difference in mortgage insurance schemes between them help to close the gap. Under the AG3/2 and AG97 schemes, the cost of mortgage insurance is not part of the insured loan amount. In Canada, CMHC allows the premium to be added to the principal of the insured mortgage. Given the premium in Canada is 3.75%, this means that the effective LTV in Canada can be as high as $95 * 1.0375 = 98.6\%$.

Automated Underwriting and Credit Scoring

Private market vendors were the first to develop automated underwriting systems. These systems were basically electronic forms that closely followed standard underwriting guidelines. The development of an electronic loan processing system was inevitable. After significant testing of its system in 1994, Freddie Mac introduced its Loan Prospector (LP) system in 1995. This was followed shortly thereafter by Fannie Mae's Desktop Underwriting System. These two systems evaluate the borrower (credit history and "capacity" to repay the loan) and property (value of the collateral). Modifying the system to include a downstream statistical analysis of loan foreclosure probabilities enhances the operation of the mortgage issuance system and the perception of its fairness. Thus far, the predictive ability of these systems has been found to be good; the systems are a success. However, a better test will come when there are significant changes in the economy, thus creating a test of the accuracy of the statistical model. That test awaits a significant economic downturn or structural economic change. In 1996, Freddie Mac and HUD agreed to develop a version of Loan Prospector based on HUD's FHA experience. Currently, the predictive ability of the system is under review, with an eye to expanding the number of influential factors, such as mortgage counseling, that the automated system considers in the evaluation. Freddie Mac reports that 50% of the loans it purchased in 1997 were evaluated by Loan Prospector. That percentage is expected to grow to 80% in 1998. The next step envisioned is the use of risk-based individual pricing of loans; this is expected to be fully implemented by 2000.

The Freddie Mac and Fannie Mae systems are similar, thus only Freddie Mac's Loan Prospector is described below. The inputs to the evaluation are information about the collateral (house and downpayment), the borrower's financial capacity (income, debt, cash reserves), and the borrower's credit reputation (credit score). The credit score is available from three national sources and is based on the borrower's history of repaying credit, whether payments are up to date or more than 60 days delinquent, how much credit is used compared to the limit, the nature of recent credit inquiries, declarations of bankruptcy, and unpaid judgments). An often-used measure (FICO) was developed by Fair-Isaac Co. FICO scores ranges from 400 to 900 with 400 being the most risky. The two most important components of automated underwriting in the evaluation of an application are the credit scores and the downpayment. Households with FICO scores below 619 are 18 times more likely to experience home foreclosure than are households with scores above 661. Households with downpayments of 5 to 9% are 5 times more likely to have a foreclosure than are those whose down-

payment is at least 20%. Less important is MSR. Households with an MSR greater than 36% are twice as likely to have a foreclosure than are households whose MSR is under 30%. In most cases, the Loan Prospector system requires only a Condition and Marketability Report, not a full appraisal. This report must be completed by a licensed appraiser and requires an exterior inspection and drive through the neighborhood. The goal is to determine whether the condition of the property is typical for the neighborhood. If it is, a house valuation model is used to establish whether the property has sufficient collateral value. If no, then a full appraisal must be conducted. Freddie Mac uses its Home Value model to establish property values.

The outcome of the Loan Prospector system is to allocate an application to one of three categories: accept, refer, and caution. If rated "accept", the loan will be purchased by Freddie Mac and the lender need not provide Freddie the guarantees that would be needed for the same loan if Loan Prospector was not used to evaluate it. The foreclosure rate on loans in this category is one-third the rate of all Freddie Mac loans issued in 1994. If graded as "refer", then more in-depth review by the lender is needed and Freddie will not purchase the loan immediately. However, upon further review, some of these loans are purchased. The foreclosure rate on these loans is 2.5 times the rate of all 1994 Freddie Mac loans. If the application is rated as "caution", then it is rare that the loan could be sold to Freddie, even upon further review. The foreclosure rate on these loans is 11.8 times the rate of all 1994 Freddie loans.

Some problems have been encountered during the transition from manual underwriting to automated underwriting. While still using a manual system, underwriters became aware of the importance of credit scores to the automated system. Freddie Mac announced the critical FICO scores of 620 and 660. Subsequently, manual underwriters began to use these values as strict cutoffs in the approval process. However, while the score is important in the automated system, compensatory factors may be present in the application. Following this period of relative overemphasis on credit scores, Freddie Mac and Fannie Mae instructed underwriters to not rely solely on the score to determine the application's outcome. The public was concerned about credit scores and confused about how they were generated, whether they were publicly available, whether they were fairly calculated, and what behaviour would maximize a score. The lesson learned is applicable to automated underwriting as well as credit scores. Any black box derived scores will be questioned by the affected individuals and special interest groups representing collections of individuals. If the black box system is proprietary, it becomes difficult to defend against public attacks. The U.S. GSEs has invested in publicizing that the outcomes of the automated systems correctly predict aggregate outcomes, anticipating public discomfort with a black box system. There has been some criticism of both Freddie Mac and Fannie Mae in regard to automated underwriting. In part, the concern is among private mortgage insurers who find it difficult to compete against the GSEs because of their automated underwriting systems. In part, the concern is among banks and other mortgage retailers who may each have their own underwriting system that operates alongside that of the mortgage insurer. There are gains in efficiency to be had by standardizing such software.

The innovations and complications of the Loan Prospector system are primarily related to the interactions of risk categories (referred to as layering of risks). Traditional systems tend to view underwriting criteria as multiple constraints, all of which had to be met simultaneously. However, analysis of foreclosure data reveal that there are both compensatory factors and negative interactions. For example, a household with an insufficient credit score, but high level of wealth (called reserves) could be a safe bet for a mortgage based on the prior experiences of similar households. Alternatively, a household just below the guidelines for credit score, debt to income ratio, and reserves could be much riskier than a simple addition of risks might suggest. The key to the system is to properly measure these interactions of risk factors.

The goal is to use automated systems for all loan evaluations, including jumbo, standard, and subprime loans. However, the benefits of the system are expected to accrue disproportionately to minorities and low-income households. The benefits to the borrower include

- **Reduced closing costs.** In an experimental program, lenders reported their reduction in closing costs using automated underwriting. It is then assumed that competitive pressures in the mortgage lending market will pass these cost reductions on to consumers. In the U.S. it is estimated that an additional 60,000-100,000 households will become homeowners as a result of this reduction in closing costs.
- **Less paperwork and faster mortgage approvals.** Mortgage approval times varied prior to the use of automated underwriting. However, they were often substantial, and the long process contributed to the publicly held view that the mortgage application process was stressful, complicated, and full of paperwork. This hypothesis has been validated in surveys of renters who were financially qualified to own, but chose to continue renting. There is no specific estimate of the increase in the homeownership rate as a result of the increased efficiency in processing applications, but presumably it is small.
- **Fairer and more equitable system.** Some minority renters believe that the mortgage application system is not fair. This perception is likely based on the relatively high rate of rejections (compared with white households) unadjusted for personal financial qualifications and the U.S. history of discrimination in the mortgage lending market (e.g. redlining). In manual mortgage underwriting processes, human judgments must be made, and these judgments can lead to applicants questioning the fairness of the system even if the judgments are fair. It is expected that the automated system will increase the perception of fairness of the system and will thus increase the number of applications from minorities. In 1994, surveys have revealed that about 30% of U.S. Black and Hispanic households believe they would encounter discrimination in the mortgage market. It is estimated that 400,000 minority renters would become homeowners if they applied for mortgages at the same rate as white households and had their applications evaluated by a neutral underwriting system.
- **Better recognition of mortgage risk.** Previously, mortgage applicants with unusual credit histories or employment (e.g. self employed) were difficult to evaluate and were more likely to be rejected. In part, the rejection could be based on the lack of experience of the evaluator of the application. The automated system is based on a much greater set of parameters than could be mastered by an individual evaluator and it includes atypical combinations of collateral, capacity, and credit history. Thus, a more accurate estimation of foreclosure risk is made, and some households that would have been rejected under prior evaluation systems will be found credit worthy in the automated system. Evaluation of a sample of loan applications rejected by conventional underwriting (1992) by the automated system indicates that 25% of the applications would have been acceptable. There were 1 million rejections of loan applications in 1992; thus, up to 250,000 more approvals could occur with automated underwriting. Freddie Mac is also extending the use of the Loan Prospector system to subprime loans. While it will not purchase the loans, it offers more accurate evaluation of foreclosure prospects of subprime borrowers and more accurate data needed for pricing a loan.
- **Better treatment of subprime borrowers.** Related to the more accurate evaluation of loans is the treatment of high-risk borrowers who turn to the subprime market. The subprime market is about 8% of the total mortgage market. Use of automated underwriting is expected to move some current subprime borrowers to the standard market, the estimated range being from 10% to 35% of subprime borrowers. This change will save borrowers substantial mortgage interest costs, the estimate is 1.5 percentage points of mortgage interest. Beneficiaries will be primarily low income and minority households as the subprime market as African Americans and Hispanics are overrepresented in subprime lending by a factor of 3 and low-income households by a factor of 1.5.

Each of these benefits should increase the tendency of renters to become homeowners.

Other actors also benefit from automated underwriting. Benefits to lenders include a reducing in their costs, providing quicker service to customers, and increasing the level of security from charges of discrimination. The automated systems also create data needed for compliance with the Home Mortgage Disclosure Act (HMDA) and they identify properties on flood plains, these needing special

insurance. Benefits to Freddie Mac and Fannie Mae include meeting their mandate to issue more mortgages to underserved markets and increased use of their mortgage products, this increasing their profitability. For example, Fannie Mae's newly developed Flexible 97 mortgage can only be issued through its Desktop Underwriter system.

Goals, targets, and barriers

The stated purpose of the automated underwriting systems of Freddie Mac and Fannie Mae is to increase the homeownership rate by reducing closing and administrative costs through a mortgage application and underwriting system that is viewed as fair impartial, and which employs an integrated statistical analysis of the numerous factors affecting underwriting loan eligibility.

Closest equivalent in Canada: past or present

In Canada, CMHC offers an automated underwriting system entitled EMILI. EMILI is an electronic processing system for mortgage loan insurance applications, a state-of-the-art product which enables almost instantaneous turnaround time. EMILI may be used in underwriting mortgages with the following characteristics:

- owner-occupied dwelling;
- existing or new dwelling (excluding new condominium);
- one to four dwelling units on property (one or two in case of 95% LTV financing);
- single advance payment;
- first mortgage loan;
- fixed or variable rate mortgage or self-funded mortgage through an RRSP;
- purchase, refinance, or undertake improvements on a dwelling as well as home equity loans;
- freehold, condominium, or leasehold (no chattel loans); and
- maximum amortization period (i.e., the lesser of remaining economic life or 25 years)

In assessing the suitability of a mortgage insurance application, EMILI is designed to answer the following questions. Are the proposed payments manageable? For shorter-term mortgages, could the borrower cope if the loan was renewed at a higher interest rate? Is income likely to be stable and continuous over the next three years? Is there a good history of credit management? Does the borrower have a net worth reflecting prudent financial management? What is the source and the amount of the downpayment? Is the information accurate and consistent?

In these and other respects, EMILI is much like its U.S. counterparts: Loan Prospector and the Desktop Underwriting System. Like them, EMILI accesses data about the applicant's credit record. It also maintains a property database so that it can compare the property price reported by the applicant against prices for nearby properties. And, like its U.S. counterparts, EMILI is proprietary software designed by the mortgage insurer to efficiently funnel business for itself.

Mutual Help Ownership Opportunity for Aboriginals

The modern history of housing assistance for Native Americans began in 1961 when HUD and the Bureau of Indian Affairs (BIA) first determined that Native Americans living in or near tribal areas were eligible for rental assistance pursuant to the *Housing Act of 1937*. The *Indian Housing Act of 1988* established a

Native American housing program that was separate from *Housing Act*. of 1937. The most-recent shift in policy direction is exemplified in the *Native American Housing Assistance and Self-Determination Act* (NAHASDA) of 1996.

From fiscal year 1986 through fiscal year 1995, HUD provided (1) US\$ 2.4 billion (in constant 1995 dollars) to 189 Indian Housing Authorities (IHA) who in turn developed over 24,000 new homes, (2) another US\$ 1.5 billion to IHA to help operate and maintain existing housing for both renters and homeowners, and (3) US\$ 0.4 billion in block grants to eligible tribes for community development and mortgage assistance. During this period, financial assistance took the form of categorical grants. In 1995 for example, federal funding for Native American housing amounted to US\$ 0.5 billion and was split among the following seven separate programs.

Title HUD funding of Native housing and community development programs (millions of US\$), 1995		
Program	Funding	Activities
Mutual Help Homeownership Opportunity	123	1289 units to be built
Rental Housing Program	121	495 units to be built
Modernization of low-income housing	161	Fund activities such as replacing roofs and converting and enlarging many of the 82000 units managed by IHA
IHA operating subsidies	71	Subsidize IHA expenses for preventive maintenance, planning, rent collection, tenant counseling and contracting
Section 184 loan guarantees	3	Provide guarantees for 477 units. 1995 was the first full year of operation for this program.
HOME investment partnership program	14	Provide grants to 12 tribes to construct 303 new houses, rehabilitate 191 houses, and acquire 54 houses
Community Development Block Grant Program	46	Approve projects for housing rehabilitation, infrastructure, building (such as community buildings) and economic development.
TOTAL	539	
Source: GAO/RCED-97-64, Table 1.		

The Mutual Help Homeownership Opportunity program (MHHO) was a scheme under which families lease and then buy their homes by making payments to an IHA of approximately 15%-30% of their income while covering their own routine operating and maintenance expenses. From fiscal 1985 through fiscal 1995, 15,721 new dwellings were developed under MHHO. The purpose of MHHO was to encourage homeownership among Indian families living on trust (tribal) lands. In this program, HUD funded IHA and tribes; it did not directly fund individuals. Development funds were provided to IHA to construct, buy, or (after 1991) rehabilitate homes. In turn, households gained occupancy of the dwelling by making a downpayment of at least US\$ 1,500. This amount could be paid in various ways including cash, materials, or land. If the home was a new construction, the family could contribute the major portion of labor (sweat equity) needed to build the home if supervised by someone with expertise in construction. The occupying household then was to make monthly payments of from 15% to 30% of its income into an account that was used to purchase the home. They also paid for all maintenance on the home. An administrative charge was to be levied monthly by the IHA or tribe. Monthly payments above the administrative charge were credited to the household's home equity account. The expected repayment period ranged from 15 to 25 years and the IHA or tribe retained ownership of the home until repayment was complete,

With NAHASDA came significant changes. First, funding was shifted from the IHA (189) to the tribe (356 in the continental United States, and over 550 in total). Second, public funding for housing took the form of a block grant in which each tribe was free to allocate among various housing programs. Third, the focus in homeownership policy shifted from the tribe or IHA to the individual homebuyer.

In 1997, HUD and its tribal partners began to implement the 1996 Native American Housing Assistance and Self-Determination Act (NAHASDA). Beginning in 1998, the new law consolidates Native American housing and housing-related assistance into a single formula-based Indian Housing Block Grant (IHBG). In the fiscal year 1998, a total of US\$ 600 million was appropriated to IHBGs. Tribes, IHAs, or their successor tribally designated housing entities could still develop and operate programs similar to Mutual Help with NAHASDA funds. However, no new MHHO funding has been available since NAHASDA took effect. Existing contracts remain in force unless renegotiated. Approximately 40,066 housing units were under management as of September 30, 1995.

One successor to MHHO is the Indian Home Loan Guarantee Program (IHLGP): a mortgage insurance scheme that started in 1992 under Section 184 of the *Housing and Community Development Act of 1992* (HCDA) and was amended by Title VII of NAHASDA. IHLGP is operated by HUD. With IHLGP, Native American households and IHA purchase housing using a collateral loan from the usual sources including banks, savings and loans, mortgage companies, or any other lender approved by HUD. The collateral can not include trust land unless the tribe has adopted and will enforce procedures for the eviction of defaulted mortgagors. Since the collateral loan is of the conventional type, the borrower must have sufficient income, wealth, and credit history to secure a loan. Families determine whether they are eligible for the IHLGP insurance from loan officers at the mortgage originator; there must be a reasonable prospect of repayment of the loan. The purchased house may be new construction or an existing home, including manufactured or mobile homes. Similar to FHA loans, the house must meet HUD quality standards. For new homes, the house plans must be approved by HUD. Often, land for the house is leased from the tribe associated with the reservation. During fiscal year 1995, the program's first year of operation, HUD used the program's appropriation of US\$ 3 million to guarantee 74 homeownership loans for individuals and 403 loans for IHA totaling US\$ 22.5 million in home loans. IHLGP is subject to an annual allotment that limits new loan commitments during a fiscal year. For fiscal 2000, the allotment is US\$ 6 million which translates to almost US\$ 72 million in guarantee authority. From implementation in 1994 through September 2000, 775 IHLGP mortgage loans had been made, totaling almost US\$ 75 million. Fannie Mae purchases loans insured under IHLGP for resale in secondary mortgage markets.

HUD has also operated, since 1987, a Mortgage Insurance Program for Native American Reservations (MIPNAR) under FHA Section 248. This insurance scheme is available only where no other feasible financing alternative is available. The provisions are onerous and the program is little-used. The tribe must first put into place suitable eviction procedures in the event of mortgage default. The tribe may also be required to pledge part of its own income in the event of default by a tribe borrower. And, the insurance premium is substantially higher than under IHLGP. For their part, Freddie Mac and Fannie Mae then purchase some of the mortgages insured under MIPNAR for resale in secondary mortgage markets.

Goals, targets, and barriers

In developing and implementing these programs, HUD's goal (as set out by Congress) is to take primary responsibility for providing affordable housing to low-income Native American families living on reservations and in other traditional Indian areas. One barrier to affordable housing here is that such areas are often remote and inhospitable for human habitation, and thus construction and maintenance are costly. Second local housing markets—where they even exist—are "thin" in the sense that there are relatively few buyers and few sellers in the vicinity. By their nature, these two also constitute barriers to home ownership. A third barrier is that, in the U.S. as in Canada, Indian lands have a unique status. In the traditional home mortgage market elsewhere in the U.S., legal title to the land and home is used as collateral by lenders. Even in the case of a mobile home on a leased lots, lenders have recourse to collateral mortgages which allow them to seize the mobile home upon foreclosure. On the reservation, land is held in trust and the homeowner merely has a lease on the land. In that sense, lenders are restricted to a collateral mortgage. However, in the case of default, a lender would have to take the case to a tribal court to be able to seize the home. However, most tribes do not have foreclosure laws

on the books. Further, if the house is then resold (assuming it remains on reservation land), the tribe would have to approve the potential purchaser. The result is that mortgage lenders will not make loans for properties on Native American reservations without some type of mortgage guarantee program. MHHO sought to fund dwelling investment that private-sector lenders thought too risky. The rationale for IHLGP and MIPNAR is that private sector lenders should provide the financing, and that mortgage insurance was key to making that happen.

HCDA Section 184 IHLGP

Target group:	Native American borrower (with sufficient income to afford to afford a home loan) or Indian housing authority who have unique property title situations in a market that is traditionally underserved.
Dwelling type:	IHLGP insures single family (one to four family units) residential loans made by eligible lenders. Must be the principal residence of the borrower. Includes manufactured housing if permanently affixed to the property. Dwellings must be standard quality, modest in size, and design, and must meet applicable construction and safety codes.
LTV:	Maximum LTV is 98.75% or 97.75%.
Downpayment:	Cash, other assets, sweat equity.
Closing costs:	Borrower's cash investment must equal the difference between the amount of the insured mortgage and the total cost to acquire the property, including items such as prepaid expenses. Balance of funds to close may come from personal cash, qualifying gifts and grants, and contributions by property seller up to 6 percent of value.
Loan term:	Up to 30-year. Excludes adjustable rate loans. Loans may be made for acquisition of existing housing, construction of new housing, rehabilitation of existing housing, or acquisition and rehabilitation of existing housing. Construction or rehabilitation must be completed before loan is delivered to Freddie Mac under MIPNAR Interest rate must be fixed.
MSR:	Total debt-payment-to-income ratio must not exceed 41%
Income:	No income limits.
Refinancing:	IHLGP does not permit refinancing
Counseling:	Encouraged but not required
Insurance:	IHLGP insures 100% of the mortgage balance. The mortgage insurance premium is a flat 1% of the principal obligation, payable by the borrower at closing.

FHA Section 248 MIPNAR

Target group:	As in IHLGP. However, MIPNAR is available only where no feasible financing alternative is available. HUD may require an Indian tribe to pledge income from tribal resources or assets to reimburse HUD for any mortgage insurance claims, or an individual Indian borrower to pledge his or her share of distributed income from tribal resources. HUD requires that the tribe adopt eviction procedures to be used in the event of a default.
Dwelling type:	As in IHLGP.
LTV:	As in IHLGP.
Downpayment:	As in IHLGP.
Closing costs:	As in IHLGP.
Loan term:	As in IHLGP.
MSR:	As in IHLGP.
Income:	As in IHLGP.
Refinancing:	Unlike IHLGP, MIPNAR permits refinancing.
Counseling:	As in IHLGP.
Insurance:	Premium up to 3% of the mortgage balance. Monthly premium only (no upfront mortgage insurance payment).

Who are the targets of policy here. The MHHO program is targeted broadly at Native American families with modest incomes. However, mortgage lending in MHHO was done indirectly—that is, through the

IHA or tribe—rather than to the homebuyers themselves. In the case of IHLGP and MIPNAR, the targeted group is the Native American homebuyer, and HUD-provided mortgage insurance is seen to ensure a steady flow of lending in an otherwise-risky local property market. For an IHLGP home loan on tribal trust land, the eligible individual borrower leases the homesite from the tribe on a lease approved by the Bureau of Indian Affairs (BIA) and by HUD. That lease creates a leasehold interest. It is the home and the leasehold interest in the homesite that are mortgaged. In the event of foreclosure, only the home and the leasehold interest are foreclosed; the ownership of the land itself remains in trust for the tribe. To be eligible for MIPNAR, the tribe associated with the reservation must have instituted four procedures that provide the authority for HUD to act in the event of mortgage default.

- The tribe must adopt eviction procedures and enforce them when appropriate. The tribe must also name the court that will have jurisdiction over evictions.
- The tribe must permit HUD access to the property for serving notice in the case of eviction
- The tribe must use a HUD approved lease form when a family leases the land on which a new home will be constructed.
- If a tribal court has jurisdiction over foreclosures, then the tribe must enact a law related to the priority of liens on a property. Either FHA insured and HUD held mortgage must be the first lien on the tribe must enact a law that states that the state law in which the reservation is located determines the priority of liens on the property.

Closest equivalent in Canada: past or present

In Canada, there are no direct equivalents to these U.S. programs. However, Canada has had experience with aboriginal housing initiatives which incorporate the primary characteristics of the IHLGP, MIPNAR, and MHHO programs. Before outlining the similarities between US and Canadian measures, a brief summary is provided of the main features used in Canada to facilitate aboriginal access to home ownership through CMHC's mortgage insurance program. Pursuant to the Indian Act, on-reserve land in Canada cannot be mortgaged, pledged, attached, levied, charged, or seized by a non-Indian. Historically, Indian and Northern Affairs Canada (INAC) has provided a Ministerial Loan Guarantee (MLG) to lenders as alternative security for on-reserve housing loans. In the event of loan default, the lender is paid out under the MLG by INAC. INAC then recovers the funds from the First Nation under the terms of the guarantee that the Band Council provides to INAC at loan initiation in support of the Band's request for the MLG. Until recently, when an individual Band member applied for a loan for new construction, purchase or renovation of a home on land within an Indian Reserve, the application was processed in accordance with standard lending criteria. The Approved Lender submitted applications for loan insurance to CMHC for approval, which was provided conditional to the provision of a MLG by INAC. When an MLG was provided by Indian and Northern Affairs Canada, on a CMHC insured loan on-reserve, no insurance premium was payable. From 1978 until 1999, CMHC mortgage loan insurance was mandatory for loans on which a MLG was provided. Under revisions to the INAC Terms and Conditions for the MLG approved by an Order in Council November 4, 1999, CMHC mortgage insurance is no longer a mandatory requirement although the lender must be a CMHC Approved Lender under the National Housing Act.

As is the situation under MIPNAR, CMHC has provided mortgage insurance for difficult-to-insure homeownership housing on aboriginal lands. However, unlike MIPNAR which requires both that a mortgage insurance premium is paid and that the tribe assumes default liability, the CMHC program does not charge an insurance premium with losses ultimately being borne by the on-reserve band out of federal budget appropriations which the band receives. CMHC's provision of mortgage insurance is very similar to the IHLGP provision of a loan guarantee, however, CMHC's mortgage insurance program did not prescribe actions which an on-reserve band has to take in the event of a default including the direct payment to the lender which precluded any claim being made against the MLG. On-reserve bands therefore had the flexibility in Canada to employ alternate solutions in dealing with default since the band itself is ultimately liable for any loan losses. Under the revised 1999 DIAND Terms and Conditions of the MLG, there is now a prescribed role and responsibilities for First Nations in the event of default.

Canada has also had experience with a number of measures akin to the MHHO program which provides federal funding to a tribe for the construction and/or rehabilitation of homeownership housing which individuals can acquire over time. In Canada, the Six Nations Band Council and the Kitigan Zibi Band, for example, have established revolving loan funds using federal appropriation subsidies for use in providing homeownership loans to residents which must be paid back over time. In addition, while not available for on-reserve housing, CMHC managed a Rural and Native Housing (RNH) program that existed in Canada between 1986 and 1993 which incorporated the lease-to-own homeownership and subsidization features which existing under the now-inactive U.S. MHHO program. As is the case with existing MHHO initiative, CMHC continues to honour and provide financial subsidies and commitments made under the RNH program.

NAR's "One America" Training Program

The full program name is "At Home with Diversity: One America Certification". This program was announced on November 15, 1997. It is a joint effort of the National Association of Realtors (NAR) and the federal Department of Housing and Urban Development (HUD). The program trains members of NAR; i.e. realtors. It is targeted to help real estate brokers and agents learn to work with a population of potential homebuyers that is increasingly diverse in terms of culture, race, and ethnicity. The training is presented to NAR members as a method to increase home sales, thus real estate agents' income. A second purpose is to increase the cultural, racial, and ethnic diversity of individuals attracted to the real estate profession. Currently, the number of minorities that are members of the NAR is 50,000: that is, 8% of the total membership. Minorities (Black, Hispanic, Asian, and Native American) are 26% of the U.S. population, thus they are underrepresented in the organization compared with the U.S. population. Participation in the program is voluntary. Once agents complete the program, they receive certification jointly from the NAR and HUD.

HUD plans to promote the One America program through FHA advertising. Thus, households seeking FHA support in purchasing a home will be informed about the One America program and urged to select a real estate agent that has One America certification. All real estate agents are eligible to participate unless they have been found to have violated the Fair Housing Act. This program was started in conjunction with the 30th anniversary of the Fair Housing Act. The Department of Justice continues to discuss with the NAR the enforcement of the Act to achieve what President Clinton referred to as "One America". It is expected that the NAR's One America program will assist agents in meeting the targets of the Fair Housing Act. The NAR effort supports efforts by HUD, Fannie Mae, Freddie Mac, and other private organizations supporting increased homeownership.

The National Association of Realtors created a certification program for real estate practitioners focusing on diversity in 1997. It is a collaborative program with the Department of Housing and Urban Development. The goal of the program is to assist practitioners reach out and include all participants in the housing market. The course builds cross-cultural skills, focuses on awareness of diversity issues, and helps to develop a business plan that incorporates diversity. The course lasts for one day course and has a participation fee of about US\$ 100 to US\$ 200. Certification lasts for two years and is renewable. Course size is 20 to 25. Instructors of the course are licensed by the NAR and must have completed an NAR training course. The courses are offered at national conferences and in various cities in the U.S. The NAR and local real estate associations advertise the courses. In 1999, HUD named "At Home with Diversity: One America" a "Best Practice" during HUD's 1999 Best Practices and Technical Assistance Symposium. The program was recognized for its ability to effectively teach real estate companies and practitioners how to work with buyers of different and minority groups, cultures and ethnic backgrounds, and to encourage more people of diverse ethnic backgrounds to become real estate practitioners.

The NAR course consists of the following seven modules:

- Diversity and inclusiveness. Why adopt an approach that includes a diverse clientele? What are fair housing laws? What are the future demographics of a diverse population?
- Discovering local diversity. What is the cultural diversity in your locality? How do various cultural groups approach home buying? What are perceived barriers to homeownership? What influence do culturally based customs have on home buying? What are various groups' stereotypes of real estate agents?
- Diversity and the real estate business. Review of fair housing laws. The business benefits of inclusiveness.
- Building diversity awareness. More discussion of stereotypes. How stereotypes affect behavior and how can they be overcome?
- Building cross-cultural skills. Practice of relationship skills with a diverse clientele.
- The inclusive business plan. How should diversity awareness be included in daily business interactions? What are staffing implications? How can the real estate office become involved in a diverse community? Inclusion of diversity in strategic plans.
- Implementation toolkit. Summary of the above.

Goals, targets, and barriers

The targeted group of potential homebuyers is low-income households, many of whom are members of a minority group. Included in this group is the large number of recent immigrants to the U.S., this group considered to be a prime target for homeownership. The training is supposed to allow real estate agents to reach out to historically underserved clients by informing them about variations in cultures that may affect potential homebuyer behaviour. It is also targeted at expanding real estate agent information about housing opportunities for low and middle-income households. The targeted groups, including African Americans, Hispanics, and immigrants have relatively low homeownership rates, but are the fastest growing group of owners in recent years. During the first month of the program, over 200 Realtors completed training. The course was offered by 20 groups and in 20 states during 1998. It was anticipated that 4,000 agents would complete the course by July 1999.

Closest equivalent in Canada: past or present

To date, in Canada, there does not appear to have been any attempt at such outreach in as organized a fashion as the One America scheme.

HELP and Homebuyer Counseling

The *Housing and Urban Development Act* of 1968, the legislation that established the federal Department of Housing and Urban Development (HUD), included Section 106 which promotes housing counseling. Largely because of widespread defaults in HUD's Section 235 low-income housing program, efforts initially (around 1971) were dominated by post-purchase counseling. A new phase in homebuyer counseling came about following passage of the Community Reinvestment Act of 1977 whose anti-discrimination provisions require that regulated lenders do "regular business" in their service areas. These lenders came to rely on homebuyer counseling to provide them with the information they needed about the demand for residential mortgage loans within their service area. The collapse of the Savings and Loan industry in the 1980s followed by the credit crunch of the early 1990s was a third source.

In the last half of the 1990s, there was renewed interest in the role that homebuyer counseling can play in expanding access to home ownership. Federal agencies such as HUD, Freddie Mac, and Fannie Mae have encouraged the delivery and standardization of homebuyer counseling for first-time homebuyers.

The Homeownership Education and Learning Program (HELP) is a recently developed program sponsored by HUD. HELP provides classroom training to potential homebuyers. The program for a prospective homebuyer includes 16 hours of classes. The program is broken down into 4 themes, with each theme requiring 4 hours. The classes are offered free to participants and are sponsored by state agencies or other nonprofit groups.

- The first module includes information about saving for a downpayment and planning for house payments after the purchase. The overall focus is on the process of household budgeting and priority setting.
- The second module focuses on the process of shopping for a home. Included are information about finding the spatial location of potential homes and whether a household should use a real estate agent. Also explained are the negotiation process, how to make an offer, and the nature of the purchase agreement.
- The third module discusses the process of finding a mortgage lender. It discusses the various types of mortgages and the process of securing a home loan. Methods of shopping for a lender are discussed, as are the mortgage qualification criteria. Also, the program provides information about Fair Housing Laws and requirements.
- The fourth session focuses on the closing process. Also discussed are the value of periodic home inspections and other longer term aspects of homeownership.

Once a first-time homebuyer completes a homeownership counseling program, then their upfront FHA mortgage insurance premium is reduced by 100 basis points. This amount translates into an estimate of average savings per household of US\$ 800 based on an average FHA mortgage of US\$ 85,000. HUD estimates that this reduction in closing costs will allow 50,000 households to become homeowners that would not otherwise be able to afford the downpayment. HELP is just one of the programs that offers such counseling. Community groups and other nonprofits may offer their own courses (possibly with the aid of an FHA subsidy). Lenders, brokers, and other for-profit firms may also subsidize the offering of such courses. Ordinarily, homebuyers pay no fee for such counseling.

HUD funds the HELP program by funding local housing counseling agencies, state housing finance agencies, and regional/national housing intermediaries involved in its delivery. As well, HUD helps fund other accredited similar homebuyer education and counseling initiatives that have been developed. In 1998 the expected funding amounts are for US\$ 5 million for local housing counseling agencies (with no single agency receiving over US\$ 100,000), US\$ 7 million for state housing agencies (with no single agency receiving over US\$ 500,000), and US\$ 6 million for national and regional intermediaries. State housing agencies are expected to seek supplemental funding from other private and public sources.

Hirad & Zorn (2000) investigate the impact of pre-purchase counseling on 60-day mortgage delinquencies. They evaluate counseling by method of delivery and administrator. Delivery methods include classroom instruction, home study, telephone counseling, and individual counseling. Administration is categorized as government agency, nonprofit organization, or lender. Studying 40,000 Freddie Mac Affordable Gold mortgages issued since 1993, they find that the best delivery methods for homeownership counseling are individual and class instruction. Compared with other mortgage holders, delinquency rates are 41% and 23% lower, respectively. They find that the best administrators are nonprofit agencies, followed by lenders. Counseling delivered by telephone or home study does not lower delinquency rates nor does counseling administered by government agencies.

Goals, targets, and barriers

Proponents of homebuyer education and counseling see two distinct benefits from programs such as HELP. First, they argue that better-informed consumers are able to recognize risks and take precautions. In this respect, the goal of programs like HELP is to reduce the risk of default. While this in itself does not directly help to improve access to homeownership for prospective homebuyers, such education and counseling activities can reduce the likelihood that consumers fall out of homeownership. As well, this reduction in risk provides the justification for the reduced premium for mortgage insurance. The premium reduction itself indirectly improves access to homeownership by making it more affordable. Proponents argue that the second benefit of programs such as HELP is that modest-income consumers might not know that they are eligible for a mortgage loan and/or might be uninterested in applying because they anticipate that the process of mortgage application will be complicated, time-consuming, unpleasant, or simply unsuccessful. This is thought to be particularly true in the case of less-educated and minority consumers: two groups that are less likely to have a personal or family experience with the mortgage application process and the opportunities made possible through homeownership in general. HUD's overall justification for HELP is that it will assist in the revitalization and stabilization of low-income and minority neighborhoods. The target group includes households that are considering buying a home through the FHA program. To be eligible, the household must have relatively low income. Potential clients are expected to include first-home buyers, other buyers eligible for FHA loans, persons with disabilities, and persons age 62 or older who wish to convert the equity in their home to avoid default or foreclosure, pay medical expenses, or create a reverse payment mortgage.

Closest equivalent in Canada: past or present

At present, CMHC and other organizations (such as builder and realtor associations, community colleges, and lenders) play an active role in homebuyer education and learning in Canada. This includes the production of pamphlets and web-based learning materials that are designed to explain the homebuying and mortgage application process. In addition, CMHC has prepared software to help potential homebuyers calculate their budgets and assess the affordability of home ownership. A few provincial government agencies offer pre- and post-purchase counseling as do various non-profit agencies. Some of these programs have been specifically targeted (e.g., to the aboriginal community). However, there is nothing in Canada akin to the comprehensiveness and accessibility of the standardized homeowner education curriculum, training, and counseling initiatives which exist in the U.S., of which HUD's HELP program is but one example. Almost all of the U.S. programs embody a public-private partnership approach in their delivery and ongoing funding support. It has been argued that homeownership education and counseling initiatives in the U.S. have been important in raising the U.S. homeownership rate from 64% in the mid 1990s to near 67.5% by year-end 2000.

Risk-based Underwriting

Currently under consideration is a change in the way that the U.S. mortgage market applies risk based pricing to mortgages. Presently, risk based pricing occurs through segmentation of the market. The main wholesalers in the prime mortgage market are Freddie Mac and Fannie Mae. At this time, these GSEs do not purchase subprime loans; that is, those graded B or lower. There is a separate market for subprime loans and interest rates are higher because of the additional risk of foreclosure. The subprime market is separated into categories ranging from B to E, with separate pricing of loans in each category. Thus, risk-based pricing exists, but only by broad category of loan. These grades of mortgage loans are a function of credit scores, debt to income ratios, LTVs, bankruptcies, foreclosures, and delinquencies on mortgages, installment loans, and revolving credit.

The following is a summary guide to credit grading of mortgage loan applications. An applicant has a credit score, delinquency, bankruptcy, and foreclosure record, and level of debts to income other than the mortgage. The particular mortgage requested implies an LTV and final debt to income ratio. The table below lists the typical pattern of grading a loan. For example, consider a household with a credit score of at least 670, no bankruptcies or foreclosures within the last 10 years, was never late on a mortgage payment, and was late no more than 30 days on a revolving credit (twice maximum) or installment credit (once maximum). Also, if the loan applied for has an LTV no greater than 0.95 and creates a debt to income ratio of no greater than 36, then this household would be graded as A+ and be eligible for the lowest interest rate offered. In contrast, a household with credit score of 620, and credit delinquencies as specified in the table would be graded as a B (subprime) when applying for an 0.85 LTV loan if it implied a debt ratio of 50. The actual grading of credit would account for more complex patterns of credit history and interactions with the LTV and debt ratios.

Table 36 A General Guide to Credit Grades

Grade	Credit score	Debt to income ratio	Max LTV eligibility	Days delinquent by type of debt								
				Mortgage			Revolve			Installment		
				30	60	90	30	60	90	30	60	90
A+	670	36	95	0	0	0	2	0	0	1	0	0
A-	660	45	95	1	0	0	3	1	0	2	0	0
B	620	50	85	2	1	0	4	2	1	3	1	0
C	580	55	75	4	2	1	6	5	2	5	4	1
D	550	60	70	5	3	2	8	8	4	7	6	2
E	520	65	60	6	4	3	10	10	6	10	8	3
Bankruptcy/Foreclosure												
A+	None allowed within 10 years											
A-	Minimum 2 years, re-established credit											
B	Minimum 2 years, some lates											
C	Minimum 1 year											
D	Discharged											
E	Possible current											

Source Assembled by Donald Haurin, 1999.

Another form of risk-based pricing occurs though the requirement of mortgage insurance for loans with LTVs greater than 0.8. This insurance raises the cost of the loan to the borrower; this being a form of risk-based pricing because loans with LTVs greater than 0.8 have a greater chance of default. The GSEs require private mortgage insurance on loans with LTV greater than 0.8. Further, in addition to an up-front mortgage insurance premium that an insured homeowner must pay, the FHA charges an annual premium of 50 basis points for loans with LTV above 0.8. The premium is charged for the first seven years with LTV below 90%, for the first 12 years for LTV above that up to 95% and for up to the full 30-year term for LTV at or above 95%. In summary, risk-based pricing already exists in the U.S. market and is accepted as an appropriate way to price mortgages.

As is outlined below, an alternative form of risk-based pricing has been proposed however this alternative has created concerns. The alternative risk-based pricing proposal is that each loan be priced separately as a function of the risk of the loan. With the advent of credit scores and more recently, automated underwriting, risks are assessed for each household's proposed purchase of each property. Thus, current technology allows for the production of individual risk evaluations. However, although individual loan risk-based pricing has been mentioned and frequently predicted to occur in the late 1990s, Freddie Mac or Fannie Mae has not implemented it for purchases of new home loans as of the beginning of 1999. Thus, there is no evaluation of the impact of this alternative program, but we speculate on the likely outcomes. A footnote is that Freddie Mac currently uses risk-based pricing when it purchases seasoned loans. They analyze the characteristics of the household that holds the loan and price their offer based on assessments of the risk of foreclosure for this particular borrower. Another footnote is that the GSEs have not yet ventured into the subprime market, although this too has been mentioned frequently as a likely event. Once they begin to use risk-based pricing, it is likely that the

GSEs will be willing to purchase some subprime loans at some price. When the GSEs enter this market, the current artificial separation of prime and subprime will end; rather, there will be a continuum of risks and corresponding continuum of prices and interest rates charged to borrowers.

The advent of risk-based pricing will have a number of impacts on mortgage borrowers. Those with A+ credit and low LTVs such as 0.50 will likely see a reduction in interest costs of 0.25 percentage points. Currently, these loans are often held by the originators rather than being sold to the GSEs. The expected competitive response of GSEs is to use risk-based pricing to reduce the interest rate cost to these low-risk borrowers. With this credit rating, households are not likely to have been excluded from the ownership market; thus there will likely be little impact on homeownership rates. Perhaps some young households with A+ credit will speed their transition from renting to owning.

Other households with credit scores just below 680 may find that risk-based pricing increases their mortgage interest rate, slowing their entry into ownership. The reason is that the GSEs currently adopt a reject-accept decision framework. Thus, some marginal applicants are currently accepted with low credit scores. Once accepted, they currently receive the single market rate of interest. Under risk-based pricing their application will again be accepted, but at a potentially higher interest rate than the current rate. Other households with lower credit (or risk) scores are currently rejected by the automated underwriting system. To attain a loan, they must turn to the subprime market.

Households in the subprime market currently face high interest rates. While the market is competitive, the GSEs and their automated underwriting system are making loans in this market. With the entry of the GSEs, competition will increase, interest costs are likely to fall, and homeownership will be encouraged. This prediction is consistent with the current political opposition of B and C mortgage lenders to the GSE entry to their market. Opponents of GSE expansion into the subprime market predict increased interest rates in their market, although there is no apparent justification for this position.

While the GSEs have not yet implemented risk-based pricing, its starting date continues to be predicted to be soon. It is likely to be implemented through their automated underwriting systems, thus increasing the movement to use these proprietary systems. Freddie Mac notes that their Loan Prospector system currently approves 60% of applications and they expect this percentage to rise to 90 with the advent of risk-based pricing. There is likely to be significant shakeout in the current subprime lender market. Private mortgage market companies have implemented risk-based pricing for nonconforming loans; one example is Mortgage Investment Corporation, which uses Electronic Risk Assessment to individually evaluate loan applications and individually price the loan.

There is some controversy associated with risk-based pricing. Some individuals and groups see a simple picture: two loans for the same amount for similar properties will be priced differently depending on the characteristics of the applicant. It is known that, in the aggregate, African American households have a lower average credit score than white households do, thus risk-based pricing is predicted to result in costlier loans for some minority groups. The Office of Thrift Supervision is concerned about this issue. Recently, they issued a set of principles associated with risk-based pricing:

- Consumers must be informed about how credit or risk scoring works and they must be informed about how this scoring may impact their eligibility for and pricing of a home mortgage.
- Lenders must deliver risk-based pricing mortgages in a nondiscriminatory manner.
- Developers and users of risk-based pricing models must continually update the models to incorporate new information and evaluate their performance.
- risk-based pricing should be encouraged as a means of improving service and mortgage affordability; however, all participants in the mortgage market must guard against the possibility of new technology creating barriers to minority homeownership.

The first two items are not controversial. However, the third item implicitly recognizes that the models underlying the automated mortgage systems are based on statistical estimates made during particular economic times with particular economic performances. Whether they work as well at "out of sample" prediction must be evaluated. The first part of item 4 recognizes that the advent of automated underwriting, especially in the B and C loan market, will likely increase efficiency and reduce costs. The second part of item 4 seems to suggest that there is a political constraint on using risk-based pricing. That is, if minority homeownership is adversely affected, risk-based pricing may be reevaluated by the government oversight agencies.

Goals, targets, and barriers

The barriers to homeownership here are twofold. The first barrier is that a mortgage interest rate that is too high relative to the risk posed by the borrower is a barrier for that borrower. By better pricing the risk, the marginal household can be encouraged to become a homeowner. The second barrier is that a lender is deterred from lending to a marginal household even though there are offsetting conditions that should make lending more attractive. By being better able to spot good lending risks in the near-subprime pool, lenders can enhance access to homeownership.

In late 1999, Fannie Mae introduced its Timely Payment Rewards (TPR) mortgage. Under this scheme, lenders offer a mortgage at 200 basis points below the subprime rate (itself typically 300 basis points above Fannie Mae's rate for prime borrowers). When qualified borrowers make their mortgage payments on time for 24 months, their rate automatically drops a further 100 basis points: effectively moving the TPR mortgage to the same interest rate as a conventional mortgage for a prime borrower. Fannie Mae estimates that one-half of all subprime borrowers have a credit rating of A-, which is just below the minimum for prime and therefore see the potential to substantially increase access to homeownership.

Closest equivalent in Canada: past or present

In mortgage lending, there are two complementary ways to assess risk. One is through the loan-to-value (LTV) ratio. The higher the LTV, the greater the risk that borrowers are unable to recoup their costs upon foreclosure. As a consequence, in both Canada and the U.S., mortgage insurance fees rise as a percentage of the loan amount on higher LTV loans. Only in this primitive sense does Canada's mortgage lending and insurance system embody risk-based pricing. The second way of assessing risk is through credit rating of the borrower. With the spread of EMIL and related automated underwriting schemes, the credit history of the borrower has become much more important in the loan approval process (if only because available databases contain better information about the borrower than about the property). Nonetheless, in Canada, this credit information has been used only to better delineate between acceptable (prime) and unacceptable (subprime) borrowers. Such information is not otherwise used to price the risks that are posed by different borrowers. Prospective subprime borrowers who do not meet the underwriting eligibility criteria are therefore refused access to a conventional mortgage and insurance. At present in Canada, such prospective borrowers must rely entirely on the more-costly subprime market if they are to gain access to homeownership. It is these Canadians for whom there is no equivalent to Fannie Mae's TPR mortgage.

There are nonetheless market mechanisms for handling subprime mortgage loans in Canada. Subprime borrowers may be able to obtain funds directly from private mortgage brokers or other lenders who specialize in higher-risk lending. Subprime borrowers here include both those people with a blemished credit record and persons (including the self employed) without a stable job or job history. An article in the *Financial Post* (30 April 1998, page 35) mentions the partnership between one such lender (Home Savings and Loans Corporation) and the Canadian Imperial Bank of Commerce to make mortgage loans to self-employed customers of that Bank. Other Canadian subprime lenders include Bank of Montreal

Mortgage Corporation (FirstLine Mortgages), Home Capital Inc, and XCEED Mortgage Corporation (a subsidiary of CIBC).

Appendix

In the initial stage of this project, the research team was asked by its Advisory Committee to develop a list and preliminary description of initiatives/measures used in each country. In all, 84 such measures were identified that might have potential application in Canada. From this list of 84, the Advisory Committee then selected 16 from for in-depth examination. This Appendix summarizes the list of 84 measures, arranged topically into 20 groups (labeled A through T below).

Some of these mechanisms focus on factors that are widely thought to shape the choice of consumers between renting and owning

- A. Measures that encourage households to save towards a downpayment. It is thought that consumers are more likely to become homeowners the larger the amount that they have saved toward a potential downpayment. Savings has become more of a policy issue in recent decades both because increasing student loan debt has left many young adults starting their careers without any net savings. As well, other savings programs such as the Canada Pension Plan and Registered Retirement Savings Plans can be thought to compete with saving toward homeownership in Canada. Several nations have savings schemes that encourage households to save toward a first home. The closest mechanisms tried in Canada were (1) the Registered Home Ownership Savings Plan scheme and (2) the Home Buyers' Plan. What has been tried in other nations?
1. In France, EL is a home saving account that in effect purchases an option to a mortgage at a later date. EL takes two forms: CEL and PEL. CEL is a flexible saving account; the amount to be saved is not fixed, and withdrawals are allowed. The consumer is entitled to a low-interest mortgage loan after 18 months and a bonus of up to FF 7,500 (the bonus depends on the amount saved). PEL is a fixed saving plan. The consumer contracts to save fixed amounts for at least four years, and then has the right to borrow at a low rate, with a bonus of up to FF 10,000. Interest on the savings is tax-free. Households that participate in these savings plans show that they are capable of serious savings and suggest to lenders that they can dependably make a regular schedule of mortgage payments. Two types of assisted mortgages have been available since 1977: PAP (a means-tested subsidized loan) and PC (a preferred loan). PTZ, a zero interest rate loan, has replaced the PAP since October 1995. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
 2. The dedicated saving programs of German building societies (Bausparkassen) has a similar structure. The household saves a specific amount per month at a low interest (typically 2.5%, independent of general interest level) until a number of points is reached (essentially proportional to accrued interest on this savings). When the point limit is reached, the household is eligible for a low-interest loan: typically 5%, independent of current market interest rates. Savings into these contracts are tax-deductible or a tax credit (for low-to-medium incomes). The scheme is popular. It forces people to save for a generous downpayment; it is a means of enforcing self-control. As a byproduct, it makes defaults near zero. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
 3. In the U.K., the Home Loan Scheme for first-time homebuyers introduced under the Home Purchase Assistance Act, with the first loans made in December 1980. Under the Act anyone who had saved for a minimum of two years with a recognized savings institution and saved a minimum of £300 would receive a tax-free bonus of £40 (rising to a maximum of £110 for savings of £1000 or more). If the saver applied for a mortgage and had at least £600 in savings, a government loan (administered by the lending institution) of £600 which was interest-free for five years. After five years the loan was, in effect, added to the mortgage and repaid over the life of the mortgage. Among requirements was one that the value of the house had to be below a set amount, which varied by region. Few loans were made under this Scheme. A major factor

was the onset of house price inflation which both made the upper price limits unrealistic and reduced buyers' willingness to fulfill the two-year saving requirement because of the possibility of facing an unaffordable price at the end of the two-year wait. In an environment that was less inflationary, the scheme might be more successful.

4. In the U.S., another strategy is to get households to increase their savings for a downpayment. This increase can be achieved by increasing the incentive for household savings or otherwise subsidizing the downpayment. The Federal Home Loan Bank has developed an Affordable Housing Program that provides subsidies for first-time homebuyer's savings for a downpayment. Also, federal tax codes have recently changed to promote savings for downpayments.
- B. Other downpayment assistance measures. These are mechanisms to reduce the amount that consumers must save toward a downpayment. The idea here is to get households into homeownership at an earlier stage in their housing careers by lowering the downpayment hurdle.
5. Sweat equity and other in-kind deposit programs seek to replace part of a downpayment. Used to a small extent in NZ in the past but with limited success, such initiatives are now being revived as the Housing Corporation tries to breathe life into its Maori low-deposit rural lending program. In Canada, we have had experience with similar programs, notably the "shell housing" program in Nova Scotia. Such programs are attractive in rural areas where the seasonal nature of employment often means both that annual incomes are low and that householders have the time available to finish a partly completed dwelling. Of course, many new single-detached dwelling in Canada are incomplete if only because of the absence of a finished basement, backyard patio, or other landscaping. In a sweat equity program, however, the homebuyer is expected to do much more with the dwelling: from exterior sheathing, to painting, to electrical or plumbing work.
 6. A program offered in Michigan (U.S.) with support from Freddie Mac permits households to include up to 1% in the form of sweat equity.
 7. The New Zealand government has facilitated access to homeownership through downpayment assistance schemes. Suspensory (that is, interest-free) loans have been tried in NZ under a program called "Homestart". Suspensory Loans were also offered to defer down-payments under this program, and many of these loans had to be capitalized into borrowers' mortgages as they came due, causing negative equity and default problems. These are similar to the Assisted Homeownership Plan (AHOP) tried in Canada in the 1970s that subsidized second mortgages. In effect, such schemes defer part of a downpayment for a number of years, and were thought to make sense in an inflationary era where incomes were thought to be increasing.
 8. In the U.S. currently, an idea being considered is to remove the negative tax consequences on early withdrawal of money from tax deferred individual retirement accounts (e.g., IRA and 401k) when used as downpayment. This is similar to recent practice re Registered Retirement Savings Plans in Canada.
 9. In the U.K., low start mortgages offered by local authorities, new towns and housing associations, were introduced in 1975 and still available in the 1980s. Mortgage payments were to start at 20% below the normal rate and rise to the normal rate in the sixth year. There was an income maximum and a property value maximum. There were few borrowers under this scheme, partly because building societies did not give it full support. This scheme was akin to Canada's AHOP.
- C. Measures that promote flexibility in mortgage underwriting criteria. Lender requirements are critical to the homeownership decision. Relaxing lending requirements could speed the transition to ownership. Minority households also have less wealth (age adjusted), making ownership difficult to attain. U.S. examples of such initiatives include the following.
10. Freddie Mac's "103 COMBO LOAN" (103% LTV: that is, a first mortgage for 97% plus a second mortgage for the remaining 3% plus any closing costs). This is a US\$ 100 million pilot lending

program that is expected to reach about 1,000 borrowers. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.

11. GE Capital's mortgage insurance for 97% LTV, introduced in 1994, and offered to borrowers who complete the Community Home Buyer's approved education course.
12. The Neighborhood Advantage Zero Down loan program offered by BankAmerican Mortgage (San Francisco). Default losses of up to 3% on the 100% LTV 30-year fixed-rate loan are covered by the parent, BankAmerica, and any residual loss by GE Mortgage Insurance. BankAmerican mortgage has set aside US\$ 500 M for this program, and the limit on an individual mortgage is US\$ 227,150. Borrowers must have good credit (an acceptable FICO score or Omniscore) and an annual household income that does not exceed 80% of the median income for its metropolitan area. A delinquency counseling services is provided by an outside nonprofit agency.
13. Freddie Mac's Affordable Gold 5 (borrower puts 5% cash down and has high MSR) and Affordable Gold 3/2 (borrower puts 3% own cash down, and 2% from other sources). Early on, the main concern was whether this would simply result in increased rates of foreclosure. However, the advent of new analytical tools (e.g., Freddie Mac's Gold Measure and Loan Prospector) have helped to determine how underwriting guidelines can be modified without putting targeted-lending families in undue danger of foreclosure. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
14. The proposal by the Center for Community Self-Help (North Carolina) for a zero percent soft second mortgage. This proposal is modeled on the existing Low-income Housing Tax Credit program for multifamily rental housing. In return for foregoing interest payments, investors receive a credit against their federal taxes: the credit is 9% of the loan amount per year for 10 years, and the full principal is to be repaid within 15 years.
15. The proposed "Universal Account" wherein customers pool all of their assets for the purposes of obtaining loans. In this way, lenders can eliminate the downpayment requirement for some first-time homebuyers and allow existing homeowners to borrow more than their home is worth. A related product is the 125% LTV mortgage. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
16. The U.S. Federal Housing Act (FHA)—through which is provided mortgage loan insurance—now includes overtime, bonuses, and part-time earnings in borrower income, disregards debt extending under 10 months and eliminates childcare as a recurring debt. Historically, lenders and mortgage insurers were reticent to include such "opportunistic" cash flows in qualifying a mortgage applicant
17. Section 245 of the U.S. FHA insures graduated-payment mortgages for households that expect their incomes to rise substantially. Such mortgages have monthly payments that rise steadily over time. The low initial monthly payments allow borrowers to qualify more easily for a mortgage but assume that the household's income will grow sufficiently in the future to offset the escalating mortgages loan payments.
18. Freddie Mac has modified its underwriting and servicing guidelines. Borrowers are allowed to spend as much as 33% per month on housing in a 95% LTV loan (up from the 28% ratio that had previously applied). Maximum debt for borrowers has been expanded from 36% to 38% of household income. Creditworthiness can now be evidenced through regular payments such as for utilities or rent.
19. In the U.S., there have also been moves to liberalize rules for measuring downpayments in assessing eligibility for mortgage funding. Instead of using only cash saved in financial institutions for example, cash saved at home or in private home savings clubs is now more widely accepted as a component of the downpayment for the purposes of calculating mortgage eligibility.
20. In the U.K., one innovation is the save-and-spend mortgage where households can choose every month to repay or borrow up to an agreed collateral-backed limit on the total debt. A second innovation might be mortgages with payment holidays (although that already exists in Canada).

21. In the U.K., mortgage lenders base borrowers' qualification on the Loan to-Income (LI) ratio rather than the Mortgage Service Ratio (MSR). The rate at which borrowers will qualify will vary less as interest rates change under the LI than under the MSR guideline, so that the LI ratio would tend to qualify more borrowers under relatively high interest rates than the MSR ratio would. Of course the use of the LI ratio will result in a relatively high MSR under high interest rates. Interest rates for mortgages which were 13.30% in 1983 were 13.70 % in 1989. The increase in LTV over this period interacted with the small increase in interest rates to increase the average MSR for first time buyers from 19% in 1983 to 33% in 1989.
 22. In the early 1980s the Loan-to-Value (LTV) ratio of U.K. Building Societies' mortgages increased sharply, a consequence of the ending of the societies' rate-setting cartel, so that societies raised interest rates and at the same time offered an increase range of non-interest-rate terms. The average LTV ratio rose from 74% to 81% and 100% was common. In the late 1980s, 56% of first-time buyers had LTV ratios exceeding 90%. (The societies are insured against all but 20% of repossession losses so that in the bust of the 1990s the mortgage insurance sector bore most of the losses associated with repossessions, and mortgage insurance premiums have risen. Note also that capital adequacy rules differentially weight high LTV loans.)
 23. The U.K. has had experience with negative equity loans. Building societies in 1992 were in effect allowed to make mortgage loans of more than 100% through the following measure. They were permitted to make unsecured loans of up to £25,000 per person (up from £10,000 per person prior to 1992). This allowed owner-occupiers to sell a negative equity house and purchase another, perhaps releasing it, if it were a starter home, for a first-time purchaser. Abbey National took advantage of this in its Negative Equity Mortgage Scheme. In 1993 the Halifax Building Society offered loans of up to £25,000 on the property to be sold combined with 100% mortgages for the house being purchased.
- D. Measures that subsidize mortgage interest expense. By offering interest subsidies, directly or through tax expenditures, the out-of-pocket costs of homeownership can be reduced, making it a more attractive option for households.
24. The U.S. has a program employing tax-exempt Mortgage Revenue Bonds. These are state programs where mortgage loans are available from the state, but with lower interest rates than the private market. They are targeted by states toward low-income households. Also, the HUD Home Program. The Mortgage Revenue Bond program involves a substantial tax expenditure. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
- E. Measures to reduce transaction costs. In a similar sense, we can make homeownership more attractive by reducing the transaction costs of home purchase.
25. In Australia, States have some form of concessions (discount or deferral) on stamp duties for first-time homebuyers (FHB) of low-value homes. Average stamp duty across Australia is A\$ 4100. The concession for an eligible FHB in NSW consists of an up-front discount of 30%; otherwise payments can be made in 5 yearly (interest free) installments. In other states, concessions of 1% to 2% or variations on the above apply.
 26. Australia has a large and growing network of Mortgage Managers who retail mortgages to households. The Mortgage Manager arranges the funds for a loan and manages the loan- from credit assessment to the monitoring of loan repayments, insurance renewals, interest-rate adjustments and loan variations. They arrange loans using funds from sources such as unit trusts, superannuation funds, securitized funds, and banks. The owner of the mortgage is not the Mortgage Manager, but the source who works through a trustee. If a Mortgage Manager ceases trading, the trustee appoints another Mortgage Manager and the mortgage carries on as before. Mortgage Managers bring competition to the home loan market. Mortgage Managers receive revenue from two main sources - application fees and fees received for ongoing management of the loan portfolio. The Mortgage Manager is responsible for the mortgage from the time it is provided by the funding institution until the borrower pays the final installment

of the loan. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.

27. In France, a Caution mutuelle is sometimes used as a less-expensive alternative to title registration. A mortgage is typically registered on title to ensure that it is the priority claim in case of default. To avoid the costs of registration, an alternative called "caution mutuelle" is offered by some companies. In this system, the mortgage is not registered, but the provider guarantees no priority claim. The risk is shared by the household in a higher upfront payment that is partially refundable (typically 80% or more) in the end.
28. In Germany, transaction costs are low by international standards. Realtors may not charge more than 3.45% (including VAT), compared with up to 6% in Canada. The 3.45% is simply a state-imposed price ceiling which may be good or bad in terms of consumer welfare (good because it reduces unit price, bad because it may reduce service quantity). As well, transaction taxes are generally under 1 percent of the value of the transaction. Mortgage fees are negotiable, but are usually small (that is, under 1 percent) or zero.
29. Conveyancing fees in NZ have starting to fall since the government announced late in 1997 the end to the monopolization of this work by lawyers. This initiative was not designed specifically to enhance access to homeownership so much as to encourage competition and efficient pricing. Conveyancing deregulation in 1997 allows increased competition against lawyers from land agents. Initial indicators suggest this is effective in reducing costs. Home purchase transaction costs can be capitalized into home loans from some private lenders and the Housing Corporation.
30. In the U.S., Freddie Mac's Loan Prospector (LP) became available in 1995. LP is an underwriting service that integrates statistical risk assessment techniques with modern technology for the collection of information about the loan, the borrower, and the property. Some lenders report that using LP saves them US\$ 300 to US\$ 650 per loan application. By early 1996, it is reported that as much as 20% of Freddie Mac's loan volume was coming through LP. At the same time, Freddie Mac has been more supportive of the use of credit scoring (which is integral to LP) than have either Fannie Mae or FHA. In addition to LP scoring, the private sector has also been developing its own credit scoring systems: e.g., the Loan Performance Score measure offered by Mortgage Guaranty Insurance Corporation and pmiAURA developed by PMI Mortgage Insurance. This measure (in conjunction with measure 79 below) was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
31. In the U.S., Fannie Mae's "Showing America a New Way Home" program, started in 1996, experiments with underwriting. One experiment involves the streamlining of appraisals by use of alternative documentation methods. However, the effect of streamlined appraisal procedures on improved access to homeownership will likely be small.
32. In the U.K., legal costs and realtor charges are relatively low. Transaction costs in housing are a major discouragement to geographic mobility. In the UK there have been discussions of extending tax-breaks available to firms for employee relocation to households directly. Stamp duty (like land transfer tax in Canada) is only 1 per cent. Furthermore, this tax applies only to houses worth over a threshold amount (£30,000 in 1992). Overall transaction costs, including real estate agents' fees are only 4.5% which is not much more than half the rate in Canada and not much more than one-third the European rate. An associated policy is using variations in stamp duty to influence the housing market. For example in the slump of the early 1990s the stamp duty was eliminated for houses worth less than £60,000, and with the revival of house prices and incipient boom in London, the stamp duty was substantially increased for higher-priced houses (in the Labour Budget of June, 1997). The combination of low transaction costs, high rates of price inflation, the availability of 100% mortgages, and mortgage interest deductibility (for interest on a mortgage up to £30,000 and without the alternative of taking the standard exemption) is a potent one in providing an incentive to buyers to purchase a starter home at an early age and make move up purchases several times. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.

Other mechanisms focus on the fact that the kinds of households being formed today are different from the households being formed three or four decades ago.

- F. Measures to help nontraditional households access homeownership. Nontraditional households need nontraditional forms of homeownership. Over the past four decades, the number of nontraditional households (that is, that do not contain a husband-wife couple with children present) has proliferated. It is among these nontraditional households that homeownership rates are the lowest. In general, nontraditional households are smaller in size, less affluent in terms of both income and wealth, and have different housing needs from traditional households. In many cases, the traditional form of homeownership, the single detached dwelling, is unsuitable to nontraditional households. For them, such dwellings may well appear too expensive, too large, or too remote, or the financing conditions may be too daunting. To improve access to homeownership, we might do well to focus on how to make homeownership more attractive to this group.
33. Australia's concept of Community Title is a possibility. Community title allows common property areas to be incorporated into a land subdivision. Purchasers receive fee simple title to the lot and share ownership of common facilities with obligations similar to condominium ownership. Community title can include situations where the household owns its dwelling and an investor the land, or even reversed (investor owns the structure and household owns the land) to take advantage of depreciation allowances on buildings that can be advantageous to the investor. Another angle to such shared ownership schemes is that they can be of use to those with equity (for example, from a divorce settlement) but insufficient income to meet mortgage repayments.
 34. In France, Société Civile Immobilière (SCI) is a shared form of equity in housing (both rental and owner-occupied). SCI is a private market institution: a family might create an SCI, for example, when buying its house. Although an uncommon institution in practice, SCI makes it easier to transfer because you can sell part of the equity more easily than part of the house. There is also the case of 'indivision': the inheriting children own the property jointly, sharing the expenses or benefits. For rental property, secondary houses, even a house lived in by one of them, is a kind of shared equity.
 35. In France, there are also other divisions of ownership rights. Property rights are separated into two parts: *usus* (usufruct or life interest, the right to use the house or receive its rent as long as one lives) and *nue propriété* (expectant interest). The two are automatically reunited at the death of the owner of the usufruct. The separation happens only in case of family transfer, after a death or after an *inter vivos* gift. It may not seem to be of much relevance to our subject, except when looking closely at what happens to houses after the death of a spouse. Usually the surviving spouse has the *usus* and the children have the expectant interest. *Viager* (selling of the expectant interest in exchange for life rent and capital) is not widely used; this is similar to a reverse mortgage.
 36. New Zealand uses a form of condominium ownership known as a "Cross Lease". Here, the dwellings are owned individually as in Canada. However, in a cross lease, the land owned by joint corporation and leased to individual homeowners. This is different from the typical Canadian model where the land and other "common elements" are managed, but not owned, by the condominium corporation. In Canada, the condominium owner usually has a financial interest in the land on which the building is situated but does not lease land from the corporation. In effect, the cross-lease arrangement is a different way of financing the construction of condominium buildings.
 37. In the U.K., there has also been much discussion of shared ownership schemes which culminated in the introduction in 1997 of a shared equity mortgage by the Bank of Scotland and Warburgs. The latter gives cheaper mortgage finance in return for a stake, up to 50% in the appreciation in the house bought with the mortgage. However, this is only realized when the mortgagor sells the house. The associated house price options are then sold on a secondary market. This appears to have been a commercial success, at least initially. This measure was

selected by the Advisory Committee and is discussed in more detail in the main body of this report.

38. In the U.K., lenders have been reluctant to lend to owners subletting, but attitudes gradually softened: partly a result of removal of rent controls on new lettings after 1988. There is no tax on income from 1 or 2 "lodgers" when home otherwise owner-occupied, if rental income is below specified limit. Otherwise no breaks for landlords, e.g., no depreciation allowance, though interest can be offset, of course. Capital gains tax applies while owner-occupiers are exempt. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
- G. Measures that increase outreach to underserved groups, and reduce discrimination in the brokerage market, the mortgage market, and the mortgage insurance market. Many of the initiatives are American.
 39. In the U.S., as part of the National Homeownership Strategy, HUD has recently signed an agreement with the National Association of Realtors regarding reducing discrimination in the brokerage market and increasing the number of minority real estate agents.
 40. For 1998, the Rural Housing Service (RHS) in the U.S. has increased funding to US\$ 12 million for a rural homeownership program run in conjunction with the Federal Home Loan Bank (FHLB) System and the rural program of the Local Initiatives Support Corporation. Started as a pilot program in 1996, the RHS partnership links the Section 502 home loan program with community investment program (CIP) advances provided to FHLB System member institutions. The program provides fixed-rate no-down-payment mortgages to eligible families in the RHS service area.
 41. In the U.S., the Mutual Help Homeownership Opportunity program operated by HUD since 1962 is a lease-purchase program of homeownership designed specifically to serve Indians or Indian land. The Section 248 program insures mortgages that Indian families obtain from private lenders to purchase houses on tribal land. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
 42. The U.S. has implemented measures to promote methods of itemizing costs of mortgage terms that help homebuyer make intelligent choices. In support, US\$ 3.5 million in federal funds was awarded in 1995 to national housing counseling agencies: ACORN Housing Corporation, Catholic Charities USA, National Association of Housing Partnerships, the National Foundation for Consumer Credit, and the Neighborhood Re-investment Corporation. In addition, US\$ 6 million was awarded in the same year to 240 local housing counseling agencies.
 43. The U.S. has implemented measures to promote homebuyer counseling services such as the "Move to Opportunity" program and the "National Partners in Homeownership" initiative. NAR "One America" training program designed to teach real estate professionals how to work with buyers of different minority groups, cultures, and ethnic backgrounds, and to encourage people of diverse backgrounds to become real estate practitioners. Other related measures include: NAR "Partners in Housing" program; "Fair Lending - Best Practices Model Agreement" between HUD and the Mortgage Bankers Association; Fannie Mae's "Community Home Buyer's Program"; HUD's Housing Counseling Clearinghouse; and the American Homeowner Education and Counseling Institute, a nonprofit organization, founded in 1996, further expands this initiative. Part of this measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
 44. In the U.S., FHA mortgage insurance program offers a reduced mortgage insurance premium to first-time buyers who receive housing counseling. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
 45. The Massachusetts Foreclosure Prevention Project, funded largely by Freddie Mac and the Fannie Mae Foundation, provides free advice to low-income households in the form of budget counseling and strategies re foreclosure.

46. In the U.S., a national homeownership week is organized annually. This includes over 100 events that support homeownership.
- H. Measures that assist homeowners in distress. A key difference between owning and renting is liquidity. The renter can walk away at the end of a lease. A homeowner in contrast has to sell a dwelling that he/she no longer wishes to occupy. This raises the risk of illiquidity: that is, that the seller may have to wait a long time before a willing buyer appears with a fair price. The homeowner also faces substantial transaction costs in selling (e.g., brokerage, legal, inspection), taxes (e.g., transfer, stamp), not to mention price risk. Consumers don't want to get into a situation (e.g. unemployment, injury, death in the family, divorce) where they must unexpectedly sell off the dwelling. Increasingly, the kinds of households being formed today are subject to such risks. Some of these risks are already being insured in the mortgage market: e.g. life insurance in the amount of the mortgage balance. In the U.S. for example, Fannie Mae offers a Mortgage Protection Program to first-time homebuyers that includes "free" life insurance in the amount of the mortgage principal plus 90-day disability and unemployment insurance.
47. Some states in Australia offer mortgage protection insurance. This is limited State-based mortgage assistance in form of interest-free loan for low-income purchasers for a period of 12-24 months. Mortgage assistance is not a housing allowance in the conventionally used sense. It is an interest-free loan or a grant and is generally approved only in those cases where it is thought that current difficulties are short term (6-12 months). This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
48. At the end of the 1980s, many homeowners in France could not manage their mortgage debt. Typically they had borrowed at fixed rate and faced higher repayment charges upon mortgage renewal, or had a member of the household become unemployed. As well, house prices dropped: in some cases, enough to create negative equity. This raised the prospect of mortgage rescue (inspired by British experience). In one solution, the homeowner transfers ownership of the property to a lending institution, or social sector rental institution, with an option to repurchase. The household then continues to occupy the dwelling at a rent lower than the mortgage payment. Such rescues have been initiated for only 2,000 households in 9 years. Rescue was considered costly and complex, involving many partners, but it did "save" some families from disruption. The role of counseling and the possibility of becoming owner of the same home again.
49. In the U.K., income support for unemployed mortgagors is paid directly to mortgage lenders to prevent foreclosures and accordingly a drop in homeownership. This policy was introduced in late 1991. Cheap loans were made available to housing associations to fund purchase of repossessed homes that in turn were to be rented back to former mortgagors. Funds were also allocated to building societies to facilitate conversion of existing mortgages into rental agreements.

Other mechanisms are centered on the idea that homeownership receives biased treatment, vis-à-vis other forms of investment, or vis-à-vis renting.

- I. Measures that put mortgage instruments on a par with other financial instruments that involve the same level of risk.
50. Until recently in Australia, capital adequacy requirements on banks gave less weight to mortgage loans than to commercial loans; this may have influenced lending behaviour. Even among categories of mortgage instruments, risk weights vary substantially: e.g., mortgage-backed securities have a 100% risk weight whereas mortgages (LTV under 80%) have only a 50% weight for capital adequacy purposes.
- J. Measures that help give unbiased treatment of owners and renters in social and tax policy. It can be argued that, depending on circumstances, public policy may discriminate against

homeownership. On the social policy side, low-income homeowners may receive smaller welfare benefits than do low-income renters. On the tax side, homeowners may receive smaller tax advantages than do tenants and landlords. To extent that this happens, making policy unbiased will promote access to homeownership.

51. Up through the 1980s, Australia's housing policies were directed only at homeownership and public housing; private tenants were excluded from housing assistance. However, in the 1990s, explicit support of homeownership ended, and direct funding of public housing remains uncertain and below past levels. At present, housing policy is moving toward consumer subsidies. The only significant increases in housing assistance have come through increases in rent assistance to welfare recipients and renting in the private sector. This rent assistance subsidizes 75% of rent paid over a required minimum up to a given maximum, which varies (from A\$ 38 to A\$ 50 per week) according to household type. This assistance is not available to homeowners in receipt of social security payments.
52. In France, direct personal housing assistance (APL) is given to the beneficiaries of special housing loans (PAP, PTZ, and PAS). Under the same conditions, other borrowing homeowners may participate in AL (housing benefit), the amount of which is lower than APL. AL is mainly for private sector renters and mortgaged owners buyer social housing. There are two types of AL: ALF created after World War II mainly for families with children and ALS for retired households, young salaried workers, students, and the handicapped. AL was created in 1977 for renters or mortgaged owners of new or rehabilitated housing financed with public help, or conventionnés (a convention is signed between the owner and the State to rent the house to households under a certain level of income). Since 1988, APL has been extended to households who could not benefit from AL (such as households with no children, renters in the non conventionné social sector. Those allowances are taken into account when deciding on a MSR. However, some banks are reluctant to include such allowances in household income, feeling that these may change or disappear. Still this assistance is important and a kind of income insurance for mortgaged homebuyers.
53. With the welfare reforms outlined in the 1991 Budget for New Zealand, the provision of housing is no longer thought to be a "core activity", and housing assistance is to be increasingly restricted to an income supplement. Rents in the public housing stock were allowed to float to market levels and security of tenure was made comparable to the private sector. Low-income households are now paid an Accommodation Supplement regardless of their current tenure (owner, renter in public housing, renter in private housing). AS is a cash subsidy available as an entitlement for all low-income households irrespective of tenure or income source. For renters, AS pays 70% of rent in excess of 25% of net income. Maximum levels vary by region and household size. Income and cash-assets abatements apply. For homeowners, AS pays 70% of housing costs in excess of 30% of net income. Housing costs include loan repayments (principal and interest), insurance, maintenance and property taxes. Eligibility criteria are generally stricter than banks' lending criteria for all but the lowest-cost housing, so many recipients are households who have experienced an unexpected loss of income. This replaced subsidized Housing Corporation loans for low-income households which had been an important homeownership policy instrument until the late 1980s.

Still other mechanisms focus on the role of tax policy in shaping homeownership.

- K. Measures related to the taxation of capital gains. In Canada, capital gain on the principal residence of a taxpayer is exempt from income taxation. Capital gains on other property is taxed at 75% of the rate for normal income. If a person is in the business of buying and selling property, net capital gains are taxed at 100% of the rate for normal income.
54. In Germany, taxpayers must own their home for at least two years before resale. If resold earlier, the capital gain is taxed as normal income. In effect, this serves to dampen speculative buying and selling. Since speculation causes housing prices to bust as well as to boom, taxation

of speculative gains may reduce the risk of abrupt drops in price and strengthen the demand for homeownership.

55. In the U.S. prior to tax reform in 1986, there was taxation of capital gains from the sale of a principal residence. However, capital gains on housing often escaped taxation in practice. There were three loopholes. One was that the tax was deferred if a house of higher value was purchased within two years. The second was that, if the owner was 55 or older, an amount was exempted from taxation (about US\$125,000). The third is that, if a house was inherited, it was rebased so that the heirs paid no capital gains tax on previous gains. However, in some cases, capital gains taxes were paid the policy tended to result in homeowners continuously buying more-expensive homes when they moved. Two impacts were noted: a marginal decrease in homeowner mobility thus avoiding the tax; an incentive for households to move from cheaper houses in the central city to expensive homes in the suburbs. Both results were judged to be bad. The Taxpayer Relief Act of 1997 excludes \$500,000 from gains tax on the sale of a home provided that a married couple has stayed there at least two years: \$250,000 for a single person. In effect, this change eliminates the capital gains tax on housing. This is similar to the policy in Germany. Homeownership is thus encouraged.
- L. Measures to enhance depreciation allowance. Depreciation allowance for homeowners enables them to shelter part of the cost of their housing against other sources of income. Typically, landlords may claim a depreciation allowance in calculating net revenue for tax purposes; however, homeowners may not.
 56. From the mid-1970s until 1996, first-and second time homebuyers in Germany could deduct 5 percent depreciation on the first DM 330,000 of building value over the first eight years. This instrument was sometimes made more generous (about 1992-1996: 6 percent for the first 4 years, 5 percent for next 4 years) and sometimes augmented by mortgage interest deduction. This deduction amounted to DM 19,800 for most homes. In 1996, this tax deduction was replaced with a tax credit of up to only DM 5,000. This new measure has probably decreased new homeownership. In addition, for each child, this amount increases by DM 1,500 - this is an important aspect of the German subsidy system. This child-related tax credit has been in place since the mid-1980s.
- M. Measures related to value-added tax, such as Canada's Goods and Services Tax (GST). In Canada, there is no GST on residential rents. However, there is GST on new dwellings. Recently, the federal government announced a partial GST input tax credit on the construction of new rental housing. By altering the structure of GST, it is possible to further encourage homeownership.
 57. In France, if the land was bought (or a house built) with a PAP mortgage, the VAT rate was lowered (5.5% instead of 18.6%). This measure was ended with the introduction of PTZ.
 58. New Zealand has no GST on residential rents (or financial transactions such as mortgage payments). In this respect it is like Canada. However, in NZ, there is a GST input credit on new rental construction that remains in rental use for 5 years.
 59. In the U.K., housing is largely free of VAT. No VAT is charged on new construction. Since VAT is zero-rated, VAT paid on inputs can be deducted. VAT is charged on repairs and improvements.
- N. Measures related to property taxes. In Canada, homeowners pay substantial property taxes. Typically, renters pay relatively more, although this is indirect because property tax is paid by property owners rather than tenants. In other jurisdictions, where governments are less reliant on property tax, there is more incentive to form households and consume housing.
 60. In France, if a house was bought with a PAP mortgage, there was a 10-year exemption from property tax. This measure was ended with the introduction of PTZ.
 61. In 1989/90, property taxes were dropped in U.K. in favour of a community (poll) tax.

- O. Measures related to mortgage interest deductibility. Mortgage interest deductibility is another possible incentive for a household to choose homeownership. However, its application and/or adoption must be assessed in the context of the nation's policies on taxation and its priorities with respect to budgetary expenditures.
- 62. Until recently in France, 25% of interest payments were deductible from income tax, with limits more favorable for new construction and for families with children. This deduction has been removed for new mortgages in 1998 as part of a plan to restrain government spending overall. However, the 25% of interest payments on mortgages that pre-date 1998 continue to be deductible.
 - 63. Germany does not presently have mortgage interest relief, but the situation has changed frequently over the past few decades. During the last episode of mortgage relief, for homes built between 1991 and 1993, up to DM 12,000 of mortgage interest could be deducted for three years, plus a generous flat sum of up to 10% of mortgage value in the first year. Note the lopsidedness: a landlord can now (and could always) deduct all mortgage interest and related financing costs (including the flat sum). The landlord is however taxed on net rent while owner-occupiers are not taxed on imputed rents.
 - 64. The U.S. tax code refers to this as a mortgage interest "deduction". All homeowners have the option of deducting mortgage interest from their federal income taxes. The alternative is to take the "standard deduction", this an amount that varies with marital status (married, single). The standard deduction is sufficiently large such that a household making a low interest payment would select the standard deduction and reject "itemization" (listing of separate deductions including mortgage interest). Those with low interest payments include households with low valued mortgages (either low initial house purchase price or near the end of their mortgage life), and those with a relatively low mortgage interest rate. Thus, not all households benefit from the mortgage interest deduction and the Tax Act of 1986 reduced the percentage of household beneficiaries significantly.

Still other mechanisms focus on the role of promoting price stability in the housing market.

- P. Measures that reduce price-swing excesses induced by speculation. Households are attracted to homeownership in part by the potential for capital gains. However, many households are also risk-averse; they don't want to see the bursting of price bubbles. In this sense, dampening price speculation in the housing market, by smoothing out price swings, may actually work to increase the demand for homeownership by making it more attractive to households that fear a sudden downturn in house prices.
- 65. In France, taxation of vacant housing has just been voted by Parliament, supposedly to encourage landlords to rent. It may also encourage them to sell. Only private landlords are affected (not the social housing sector). A house is taxed if vacant for more than two years, if the vacancy is without good reason, and if the house is in a town of 200,000 inhabitants or more. The tax is 10% of the rent for the first year, 12.5% the second year, and 15% thereafter.

Other mechanisms focus on the role of improving consumer knowledge about household budgeting, the advantages of homeownership, and the financing options available.

- Q. Measures that improve homebuyer education and counseling.
- 66. Germany has had experience with consumer counseling. Consumer counseling programs are available for first time homebuyers in all larger cities and towns. This program operates as part of general consumer counseling agencies.
 - 67. New Zealand offers pre/post-purchase counseling for those at the margins of private sector lending standards. This is a small-scale program of the NZ Housing Corporation, currently

limited to Maori rural housing program and following the design of USA programs. As yet it is too early to get any useful evaluation of success.

68. In the U.S., the Rural Housing Service (RHS) has increased funding in 1998 to US\$ 12 million for a rural homeownership program run in conjunction with the Federal Home Loan Bank (FHLB) System and the rural program of the Local Initiatives Support Corporation. Started as a pilot program in 1996, the RHS partnership links the Section 502 home loan program with community investment program (CIP) advances provided to FHLB System member institutions. The program provides fixed-rate no-down-payment mortgages to eligible families in the RHS service area.
69. In the U.S., the Mutual Help Homeownership Opportunity program operated by HUD since 1962 is a lease-purchase program of homeownership designed specifically to serve Indians or Indian land. The Section 248 program insures mortgages that Indian families obtain from private lenders to purchase houses on tribal land. This measure was selected by the project's Advisory Committee and is discussed in more detail in the main body of this report.
70. In the U.S., measures have promoted methods of itemizing costs of mortgage terms to help homebuyer make intelligent choices. In support, US\$ 3.5 million in federal funds was awarded in 1995 to national housing counseling agencies: ACORN Housing Corporation, Catholic Charities USA, National Association of Housing Partnerships, the National Foundation for Consumer Credit, and the Neighborhood Re-investment Corporation. In addition, US\$ 6 million was awarded in the same year to 240 local housing counseling agencies.
71. The U.S. has implemented programs promoting homebuyer education and counseling services such as: "Move to Opportunity" program. "National Partners in Homeownership" initiative. NAR "One America" training program designed to teach real estate professionals how to work with buyers of different minority groups, cultures, and ethnic backgrounds, and to encourage people of diverse backgrounds to become real estate practitioners. Other related U.S. initiatives include: NAR "Partners in Housing" program; "Fair Lending - Best Practices Model Agreement" between HUD and the Mortgage Bankers Association; Fannie Mae's "Community Home Buyer's Program"; HUD's Housing Counseling Clearinghouse; and the American Homeowner Education and Counseling Institute, a nonprofit founded in 1996.
72. The U.S. *Housing and Urban Development Act* of 1968 includes Section 106 which promotes housing counseling. In the last half of the 1990s, there has been renewed interest in the role that homebuyer counseling can play in expanding access to home ownership. Federal agencies such as HUD, Freddie Mac, and Fannie Mae have encouraged the delivery and standardization of homebuyer counseling for first-time homebuyers. One particular example is the HUD-FHA Homebuyer Education Learning Program (HELP) which offers a reduced mortgage insurance premium to first-time buyers who have undertaken homeownership counseling. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.
73. The Massachusetts Foreclosure Prevention Project, funded largely by Freddie Mac and the Fannie Mae Foundation, provides free advice to low-income households in the form of budget counseling and strategies re foreclosure.
74. In the U.S., a national homeownership week is organized annually. This includes over 100 events that support homeownership.

Another mechanism is the use of industry-originated subsidies to spur demand for new housing.

R. Measures that subsidize new housing construction

75. In France, PEEC (the One Percent program) is a special tax (0.95% of wages) collected from private firms (of more than 10 workers) that are related to housing, either directly by each enterprise on behalf its own employees, or more often through specialized collectors (specialized collecting organism, comités interprofessionnels du logement. Each comité is an association of businesses that contributes on behalf of its members. Employer contributions to

homeownership go to the government for housing benefits, to social housing agencies and low-interest (less than 3%) loans to households. The state has used this program to finance the PTZ and to finance personal housing allowances. This has similarities to *Corvée Habitation* program in Québec. Under PEEC, about FF 13.3 million was collected in 1995: FF 6 million to pay for PTZ loans and the remainder was used to pay for housing benefit.

Another mechanism is the design of an efficient mortgage insurance system.

- S. Measures that encourage efficient provision of mortgage insurance. Is it more efficient to supply mortgage insurance through a crown corporation (federal agency) operating under a commercial mandate like CMHC or Ginnie Mae or a private mortgage insurer (of which there is currently only 1 in Canada and 8 or 9 in the U.S.). Is one of these forms best suited to improving access to homeownership.
76. In Australia, the major (but not sole) provider was government-guaranteed, government-owned corporation (HLIC) until Dec 1997. HLIC has now been privatized.
 77. The absence of default insurance in the German market contrasts markedly with Canadian experience. It is widely argued that mortgage insurance makes mortgage funding more widely available to households of moderate income, and that the absence of mortgage insurance would make the incidence of homeownership much lower. That Germany has a much lower rate of homeownership is consistent with this argument. At the same time, the German approach to homeownership savings programs suggests that the risks of default are simply being spread in a different way.
 78. In Canada, mortgage insurance is currently available only through CMHC and one private insurer, GE Mortgage Insurance Corporation (GEMIC). CMHC prices its insurance as a flat upfront premium which is a fixed proportion of the loan amount (the proportion rising with LTV) plus an inspection fee. In the U.S., private mortgage insurers use a combination of upfront fee plus mortgage-rate markup. The U.S. scheme appears to benefit households who repay their mortgage early (that is, prepay). For households, the U.S. scheme provides an additional incentive to be serious about saving toward early repayment. In the U.S., the scheme encourages adverse selection: that is, those households enjoying strong capital gains can cancel their mortgage insurance early through refinancing, or if their equity reaches 20%. Thus, U.S. insurers must charge more for this adverse selection. In Canada, with everyone paying upfront (although CMHC and GEMIC allow the fee itself to be included in the mortgage principal and hence expensed over the life of the mortgage), there is no adverse selection. Thus, the premium in present value terms will be lower. That would encourage homeownership.
 79. In the U.S., the FHA has proposed a pilot program that bases the mortgage rate on the credit quality of the borrower. Risk-based pricing uses the mortgage score, which combines such elements as the FICO score, LTV ratio, local economic prognosis, and other factors. Risk-based pricing is facilitated by the automated underwriting systems developed by private mortgage insurers, Fannie Mae, and Freddie Mac. Some good-quality risks presently go to the FHA and provide a cushion in its insurance fund for poorer risks, but lenders using Fannie Mae and Freddie Mac's automated underwriting are increasingly able to identify and lure away these relatively good borrowers via risk-based rates. Such a measure may not promote homeownership in the short-run because high-risk households generally have low incomes. However it may make homeownership more sustainable by lowering costs for low-risk households: e.g., single mothers with a good history of regular rent payments. This measure was selected by the Advisory Committee and is discussed in more detail in the main body of this report.

Finally, some measures promote access to homeownership through the conversion of public-sector rental housing into homeownership.

- T. Measures to convert social housing to homeownership.

80. Germany has had experience with "right to buy" in nonprofit housing. Germany never had a large stock of conventional "public housing". The German way to build housing for the poor, "social housing", was to have private non-profit enterprises build such housing, much as has been done in Canada in the last few decades. Social housing was a public-private partnership, in which the "non-profit" enterprises were frequently run by former city officials. One reason to dissolve them was the frequency of corruption. Over the past 5 to 10 years, several of these German enterprises have been converted to for-profit companies. Many sold their stock, some for cashflow reasons (in the case of enterprises that intend to make profits), and some to concentrate on housing for the really poor (charity).
81. Since 1994, New Zealand has promoted a "Home Buy" program for HNZ tenants. This program offers a 10% discount from market valuation (by way of a suspensory loan written off over 7 years. This discount is recognized as equity interest and can contribute all or part of a down payment for a Housing Corporation mortgage. HNZ also provides high-LTV mortgage finance for Home Buy participants, and a small-scale program insuring private loans to them. The Corporation provides "top slice" insurance on loans with LTVs over 80%. Insurance premiums may be capitalized into buyers' loans. However, the response to Home Buy from state tenants has been low, and the program is motivated more by a desire to reduce and reconfigure the state rental housing stock than by a desire to promote homeownership. While sales to tenants through the Home Buy program receive most attention, a greater number of state rental houses have been sold to private buyers as they become vacant.
82. In the U.S., the Turnkey III Homeownership initiative, introduced in 1968, is a lease-purchase program, available to public housing tenants wherein 13,800 units had been developed by 1983.
83. In the U.S., Section 5(h) Homeownership Program was added to the U.S. Housing Act in 1974. This section allows Public Housing Agencies and Indian Housing Authorities to sell individual units and developments to residents of public housing, and allows HUD to continue servicing the debt on the original acquisition, construction or modernization cost.
84. In the U.S., in 1987, Section 21 was added to the Federal Housing Act to permit Resident Management Corporations to take over ownership of a public housing project and resell the individual units to current public housing residents and other low income families.

References

Australia

- Bourassa, S.C. 1995. The impacts of borrowing constraints on home-ownership in Australia. *Urban Studies*, 32(7), 1163-1173.
- Bourassa, S.C., Greig, A.W., & Troy, P.N. 1995. The limits of housing policy: home ownership in Australia. *Housing Studies*, 10(1), 83-104.
- Department of Housing and Construction (1987) *Housing Assistance Act 1984, Annual Report 1985-86*, Australian Government Publishing Service: Canberra
- Department of Housing and Regional Development (1995) *Housing Assistance Act 1989, Annual Report 1993-94*, Australian Government Publishing Service: Canberra
- Edey, M., and Gray, B. 1996. *The Evolving Structure of the Australian Financial System*. Research Discussion Paper 9605. Reserve Bank of Australia. 53 p.
- Gill, A. 1998. Housing finance and the secondary mortgage market in Australia. *Housing Finance International*, 12(2), 48-52.
- Home Purchase Assistance Authority (1998) *Mortgage Assistance Scheme*, leaflet. Also available at <http://www.hpaa.nsw.gov.au/mortgage.htm>.
- Reserve Bank of Australia. 1996. The evolution of the housing loan market in Australia. *Reserve Bank of Australia Bulletin*, (June), 1-5.
- Wood, G. A. 1992. Housing finance and subsidy systems in Australia. *Housing Finance International*, September 1992, 26-45.
- Wulff, M. and Yates, J. 2000. Australian Housing Assistance Policy in Transition: Implications for the Private Rental Market, Paper presented at the plenary session "Housing Policy and Administration" at the International Housing Conference, *Housing in the New Millenium*, Singapore, 23-26 May, 2000
- Yates, J. 1997. Changing directions in Australian housing policies: the end of muddling through? *Housing Studies*, 12, 265-277,

Britain

- Allen, C. and Milne, A. 1994. Mismatch in the Housing Market. *Urban Studies*, 31(9), 1451-63.
- Anglin, Paul and Richard Arnott (forthcoming) "Are Brokers' Commission Rates on Home Sales Too High? A Conceptual Analysis," *Real Estate Economics*
- Anglin, Paul M. (1997) "Determinants of Buyer Search in a Housing Market," *Real Estate Economics* 25 4 567-589
- Balchin, Paul (1995) *Housing Policy: an Introduction* (London: Routledge)
- Balchin, Paul and Maureen Rhoden (1998), editors, *Housing* (London: Routledge).
- Bank of Scotland (1997) *Shared Appreciation Mortgage* brochure (two versions, 5.99% interest (blue cover) and zero interest (brown cover)) pp.10 plus 12 page application form
- Boleat, M. 1994. The 1985-1993 Housing Market in the United Kingdom: An Overview. *Housing Policy Debate*, 5(3), 253-74.
- Bover, O., Muellbauer, J. and Murphy, A. 1989. Housing, Wages and UK Labour Markets. *Oxford Bulletin of Economics and Statistics*, 51(2), 97-136.
- Bramley, G. 1992. Homeownership Affordability in England. *Housing Policy Debate*, 3(3), 815-53.
- Bramley, G. and Dunmore, K. 1996. Shared Ownership: Short-Term Expedient or Long-Term Major Tenure? *Housing Studies*, 11(1), 105-31.

- Caplin, Andrew, Sewin Chan, Charles Freeman and Joseph Tracy (1997) *Housing Partnerships: A New Approach to a Market at a Crossroads* (Cambridge, Mass: MIT Press)
- Clark, William A. V., and Frans M. Dieleman (1996) *Households and Housing: Choice and Outcomes in the Housing Market* (New Brunswick, New Jersey: Center for Urban Policy Research, Rutgers)
- Cope, Helen (1999) *Housing Associations: The Policy and Practice of Registered Social Landlords* (second edition) (London: Macmillan)
- Di Salvo, P. and Ermisch, J. 1997. Analysis of the Dynamics of Housing Tenure Choice in Britain. *Journal of Urban Economics*, 42(1), 1-17.
- Earley, F. 1998. Affordability. *Housing Finance*, 39 (August 1998), 17-26.
- Forrest, R. and Murie, A. 1990. A Dissatisfied State? Consumer Preferences and Council Housing in Britain. *Urban Studies*, 27(5), 617-35.
- Forrest, R. and Murie, A. 1994. The Dynamics of the Owner-Occupied Housing Market in Southern England in the Late 1980s: A Study of New Building and Vacancy Chains. *Regional Studies*, 28(3), 275-89.
- Forrest, R., Gordon, D. and Murie, A. 1996. The Position of Former Council Homes in the Housing Market. *Urban Studies*, 33(1), 125-36.
- Forrest, Ray and Alan Muriae (1995) *Housing and Family Wealth: Comparative International Perspectives* (London: Routledge)
- Gentle, C., Dorling, D. and Cornford, J. 1994. Negative Equity and British Housing in the 1990s: Cause and Effect. *Urban Studies*, 31(2), 181-99.
- Gibb, Kenneth and Moira Munroe (1991) *Housing Finance: An Introduction* (London: MacMillan)
- Gilroy, R. 1994. Women and Owner Occupation in Britain: First the Prince, Then the Palace? In R. Gilroy, & R. e. Woods (Ed.), *Housing Women*. (pp. 31-57). London and New York: Routledge.
- Goodman, J. 1999. *The Costs of Owning and Renting Housing, 1985-1995*. Presented to the American Real Estate and Urban Economics Association Meetings, New York, January, 1999 (Washington: National Multi Housing Council)
- Heywood, F. 1997. Poverty and Disrepair: Challenging the Myth of Ignorance in Private Sector Housing. *Housing Studies*, 12(1), 27-46.
- Hills, J. 1991. Distributional Effects of Housing Subsidies in the United Kingdom. *Journal of Public Economics*, 44(3), 321-52.
- Hills, John (1991) *Unravelling Housing Finance: Subsidies, Benefits and Taxation* (Oxford: Oxford University Press (Clarendon))
- Littlewood, A. and Munro, M. 1996. Explaining Disrepair: Examining Owner Occupiers' Repair and Maintenance Behaviour. *Housing Studies*, 11(4), 503-25.
- Lowe, S. 1992. The Social and Economic Consequences of the Growth of Homeownership. In J. e. Birchall (Ed.), *Housing policy in the 1990s*. (pp. 68-90). London and New York: Routledge.
- Luithlen, L. 1997. Landownership in Britain and the Quest for Town Planning. *Environment and Planning A*, 29(8), 1399-1418.
- MacLennan, D. 1995. Housing to 2001: Can Britain Do Better? *Housing Policy Debate*, 6(3), 655-94.
- MacLennan, D., and Gibb, K. 1993. Housing and the U.K. economy: the boom, the bust, and beyond. In MacLennan, D., and Gibb, K., (eds.), *Housing Finance and Subsidies in Britain*. Aldershot, Avebury.
- MacLennan, Duncan and Kenneth Gibb (1993) eds. *Housing Finance and Subsidies in Britain* (Aldershot, England: Avebury, Aldershot Publishing Co.)
- Malpass, P. 1996. The Unravelling of Housing Policy in Britain. *Housing Studies*, 11(3), 459-70.
- Malpass, Peter and Robin Means (1993) eds. *Implementing Housing Policy* (Buckingham, UK : Open University Press)
- McLaverly, P. and Yip, N. M. 1993. The Preference for Owner-Occupation. *Environment and Planning A*, 25(11), 1559-72.
- McLaverly, P. and Yip, N. M. 1994. Income Multiples and Mortgage Potential. *Urban Studies*, 31(8), 1367-76.
- Miles, D. 1994. *Housing, financial markets and the wider economy*. Chichester; New York and Toronto: Wiley.

- Muellbauer, J. 1994. Anglo-German Differences in Housing Market Fluctuations: The Role of Institutions and Macroeconomic Policy. *Economic Modelling*, 11(2), 238-49.
- Murie, A. 1991. Divisions of Homeownership: Housing Tenure and Social Change. *Environment and Planning A*, 23(3), 349-70.
- Murie, A. 1993. The Changing Face of Homeownership in Britain: Divisions, Interests, and the State. In R. A. e. Hays (Ed.), *Ownership, control, and the future of housing policy*. Contributions in Political Science, no. 316. Westport, Conn (pp. 105-20). and London: Greenwood Press.
- Nicholson, M. and Willis, K. G. 1990. The Scale and Distribution of Financial Subsidies to Owner-Occupier Households: A Comparison of Estimates Derived from Building Society Records with Those of the Joseph Rowntree Memorial Trust Random Sample Survey. *Journal of Economic and Social Measurement*, 16(2), 71-85.
- Nicholson, M. and Willis, K. G. 1991. Subsidies to Owner-Occupiers: Some Estimates from Data on Individual Households. *Environment and Planning A*, 23(3), 333-48.
- Rosenthal, L. 1989. Income and Price Elasticities of Demand for Owner-Occupied Housing in the UK: Evidence from Pooled Cross-Sectional and Time-Series Data. *Applied Economics*, 21(6), 761-75.
- Terry, Rachel (1996) *Changing Housing Markets: The Case for Flexible Tenure and Flexible Mortgages* (London: National Federation of Housing Associations).
- United Kingdom (1998) Department of the Environment, Transport and the Regions *Key Research on Easier Home Buying and Selling* (published December, 1998, at <http://www.housing.detr.gov.uk/hbs/research>)
- Williams, N. J. 1993. Homeownership and the Sale of Public-Sector Housing in Great Britain. In R. A. e. Hays (Ed.), *Ownership, control, and the future of housing policy*. Contributions in Political Science, no. 316. Westport, Conn (pp. 121-37). and London: Greenwood Press.
- Williams, N. J. and Twine, F. E. 1992. Increasing Access or Widening Choice: The Role of Resold Public-Sector Dwellings in the Housing Market. *Environment and Planning A*, 24(11), 1585-98.

Canada

- Canada Mortgage and Housing Corporation. 1998. *EMILI Automated Approval Lender's Handbook*. Ottawa, The Corporation.
- Canada Mortgage and Housing Corporation. 2000. Website on its mortgage insurance program http://www.cmhc-schl.gc.ca/hf-fl/en/buying_home/2/2sing.html.
- Engelhardt, G.V. 1997. Do targeted savings incentives for homeownership work? The Canadian experience. *Journal of Housing Research*, 8(2), 225-248.
- Frenken, H. RRSP withdrawals revisited. *Perspectives*, Winter 1996. Ottawa, Statistics Canada (75-001 XPE), 16-19.
- Frenken, H. The RRSP Home Buyers' Plan. *Perspectives*, Summer, 1998. Ottawa, Statistics Canada (75-001 XPE), 38-41.
- Revenue Canada. 1999. *Home Buyers' Plan*. RC 4135(E). Ottawa, Revenue Canada. 14 pages.

Europe

- MacLennan, D., Muellbauer, J., and Stephens, M. 1998. Asymmetries in housing and financial market institutions and EMU. *Oxford Review of Economic Policy*, 14(3), 54-80.

France

- Albouy, M. 1984. Plan d'épargne logement et theorie des options. (Housing Saving Plan and Option Theory. With English summary.). *Economies et Societes*, 18(11-12), 81-98.
- Bandyopadhyay, P. 1984. The State, Private Capital and Housing in the Paris Region. *Science and Society*, 48(2), 161-91.

- Barlow, J., and King, A. 1992. The State, the Market, and Competitive Strategy: The Housebuilding Industry in the United Kingdom, France, and Sweden. *Environment and Planning A*, 24(3), 381-400.
- Berger, M. 1996. Trajectories in Living Space, Employment and Housing Stock: The Example of the Parisian Metropolis in the 1980s and 1990s. *International Journal of Urban and Regional Research*, 20(2), 240-54.
- Blanc, M., & Bertrand, L. 1996. France. In Balchin, P. (ed.). *Housing Policy in Europe*. London, Routledge. 125-145.
- Blondel, S., and Marchand, O. 1997. Pourquoi les rendements locatifs parisiens augmentent-ils avec le chômage? (Why Do Parisian Rental Yields Rise with Unemployment? With English summary.). *Revue d'Economie Regionale et Urbaine*, 0(5), 737-52.
- Cobham, D., and Serre, J-M. 2000. A characterization of the French financial system. *The Manchester School*, 68(1), 44-67.
- Cervero, R. 1995. Planned Communities, Self-containment and Commuting: A Cross-National Perspective. *Urban Studies*, 32(7), 1135-61.
- Chiquier, L. 1998. A French secondary mortgage facility: Caisse de refinancement hypothécaire. *Housing Finance International*, 12(3), 18-27.
- Le Compte du Logement, Rapport à la Commission des Comptes du Logement, Ministère de l'Équipement, des transports et du Logement, Economica, 1998.
- Convain, A. S., and Mouillart, M. 1989. Demographie et construction de logements. (With English summary.). *Revue d'Economie Politique*, 99(4), 639-59.
- Cornuel, D. 1984. Pourquoi y a-t-il peu de pauvres en H.L.M.? (Why Are There Few Poor in H.L.M. [French Social Housing]? With English summary.). *Consommation*, 31(2), 65-85.
- Cribier, F., and Kych, A. 1993. A Comparison of Retirement Migration from Paris and London. *Environment and Planning A*, 25(10), 1399-1420.
- Diamond, D. B., Jr., and Lea, M. J. 1992. The Decline of Special Circuits in Developed Country Housing Finance. *Housing Policy Debate*, 3(3), 747-77.
- Eisinger, P. K. 1982. French Urban Housing and the Mixed Economy: The Privatization of the Public Sector. *Annals of the American Academy of Political and Social Science*, 459(0), 134-47.
- Fernandez, V., and Tuddenham, M. 1995. The Landfill Tax in France. In R. Gale, S. Barg, & A. e. Gillies (Ed.), *Green budget reform: An international casebook of leading practices* (pp. 257-66). Winnipeg, Manitoba: International Institute for Sustainable Development; London: Earthscan Publications.
- Fernandez, V., Soufi, R., and Tuddenham, M. 1995. The Tax on Undeveloped Land in France. In R. Gale, S. Barg, & A. e. Gillies (Ed.), *Green budget reform: An international casebook of leading practices* (pp. 151-60). Winnipeg, Manitoba: International Institute for Sustainable Development; London: Earthscan Publications.
- Ferrand Bechmann, D. 1988. Homeless in France: Public and Private Policies. In J. e. Friedrichs (Ed.), *Affordable housing and the homeless*. (pp. 147-55). New York and Berlin: de Gruyter.
- Frankel, A. B. 1992. The Decline of Special Circuits in Developed Country Housing Finance: Comment. *Housing Policy Debate*, 3(3), 779-82.
- Friedrichs, J. e. 1988. *Affordable housing and the homeless*. New York and Berlin: de Gruyter.
- Gaubert, P., Ibbou, S., and Tutin, C. 1996. Segmented Real Estate Markets and Price Mechanisms: The Case of Paris. *International Journal of Urban and Regional Research*, 20(2), 270-98.
- Hallett, G. 1993. National Similarities and Differences. In G. e. Hallett (Ed.), *The new housing shortage: Housing affordability in Europe and the USA*. (pp. 1-7). London and New York: Routledge.
- Hallett, G. e. 1993. *The new housing shortage: Housing affordability in Europe and the USA*. London and New York: Routledge.
- Heugas-Darraspen H. (1994), Le financement du Logement en France, *Notes et Etudes documentaires*, 4988, 1994-3.
- Hornung, P. 1996. Aides à la pierre: Efficacité et redistribution. (Housing Grants: Effectiveness and Redistribution. With English summary.). *Economie et Prévision*, 0(122), 115-31.
- Jappelli, T. 1992. The Decline of Special Circuits in Developed Country Housing Finance: Comment. *Housing Policy Debate*, 3(3), 783-92.

- Juilhard, P., and Salou, S. 1992. Sale of French Residence by Non-resident Individuals: New Limits: France. *Bulletin for International Fiscal Documentation*, 46(7), 346-50.
- Kemp, P. 1990. Income-Related Assistance with Housing Costs: A Cross-national Comparison. *Urban Studies*, 27(6), 795-808.
- Kerans, P., Drover, G., and Williams, D. 1988. *Welfare and worker participation: Eight case-studies*. New York: St. Martin's Press.
- Kessler, D., and Wolff, E. N. 1991. A Comparative Analysis of Household Wealth Patterns in France and the United States. *Review of Income and Wealth*, 37(3), 249-66.
- Kleinman, M. 1996. *Housing, welfare and the state in Europe: A comparative analysis of Britain, France and Germany*, and Lyme, N.H.: Elgar; distributed by American International Distribution Corporation.
- Lacroix, T. 1995. Le recul de l'accession sociale, *Economie et Statistique*, 288-289, 8/9 (english summary).
- Lakatos, M. 1977. Housing and the Ways of Obtaining a Flat in Four Countries. *Acta Oeconomica*, 19(2), 177-89.
- Lea, M. J., and Diamond, D. B., Jr. 1992. Housing Finance In Developed Countries: An International Comparison of Efficiency. *Journal of Housing Research*, 3(1), 1-271.
- Lefebvre, B., and Mouillart, M. 1986. Logement et epargne des menages: le modele Fanie. (Housing Markets and Saving of Households: The Fanie Model. With English summary.). *Revue Economique*, 37(3), 521-70.
- Long, L. 1992. Changing Residence: Comparative Perspectives on Its Relationship to Age, Sex, and Marital Status. *Population Studies*, 46(1), 141-58.
- Loungoulah, G. L. P. 1996. L'evaluation locale en France: Entre l'information et les enjeux de pouvoir. (Local Valuation in France: Between Information and Power Stakes. With English summary.). *Revue d'Economie Regionale et Urbaine*, 0(3), 531-50.
- McCone, G., & Stephens, M. 1995. Housing Policy in Britain and Europe. London, UCL Press. 23-44.
- Mouillart, M. 1983. Endettement des menages et rationnement du credit. (Households Indebtedness and Credit Rationing. With English summary.). *Consommation*, 30(3), 23-59.
- Omalek Laure, Laferrère Anne, le Blanc David, Cherrier Francine and Daniel Guyot (1998), 'Les conditions de logement des ménages, exploitation de l'enquête Logement 1996-1997', *Insee Résultats*, 622-623, 296p.
- Pau, L. F., and Tan, P. Y. 1996. Artificial Intelligence in Economics and Finance: A State of the Art--1994: The Real Estate Price and Assets and Liability Analysis Case. In H.-M. Amman, D.-A. Kendrick, & J. e. Rust (Ed.), *Handbook of computational economics. Volume 1. Handbooks in Economics*, vol. 13 (pp. pages 405-39). Amsterdam; New York and Oxford: Elsevier Science.
- Pearsall, J. 1984. Housing in Europe: France. In M. e. Wynn (Ed.), *Housing in Europe* (pp. 9-54). New York: St. Martin's Press; London and Canberra: Croom Helm.
- Power, A. 1993. *Hovels to high rise: State housing in Europe since 1850*. London and New York: Routledge.
- Priemus, H., and Boelhouwer, P. 1999. Social Housing Finance in Europe: Trends and Opportunities. *Urban Studies*, 36(4), 633-45.
- Reynaud, P. 1978. La copropriete contre les coproprietaires. (Coproperty against Owner Occupiers. With English summary.). *Consommation*, 25(2), 3-44.
- Roehner, B. M. 1999. Spatial Analysis of Real Estate Price Bubbles: Paris, 1984-1993. *Regional Science and Urban Economics*, 29(1), 73-88.
- Schaefer, J. P. 1993. Housing Affordability in France. In Hallett, G. E. (Ed.), *The new housing shortage: Housing affordability in Europe and the USA*. (pp. 151-78). London and New York: Routledge.
- Segaud, M., Bonvalet C., and Brun, J. (ed), 1998. *Logement et Habitat, l'Etat des savoirs*. La Découverte. 410 pages.
- Smith, J., and Oxley, M. 1997. Housing Investment and Social Housing: European Comparisons. *Housing Studies*, 12(4), 489-507.
- Smith, L. B., and et al. 1984. The Demand for Housing, Household Headship Rates, and Household Formation: An International Analysis. *Urban Studies*, 21(4), 407-14.
- Stone, C. A., and Zissu, A. 1992. Le Pret Immobilier Cautionne: An Innovative Substitute for the French Mortgage. *Journal of Housing Research*, 3(2), 401-21.

- Taffin, C. 1998. Housing credit in France: main aspects and recent changes. *Housing Finance International*, 12(3), 10-17.
- Tallard, M. 1977. Les conditions de logement des travailleurs migrants en France. *Consommation*, 24(1), 71-90.
- Vervaeke, M., and Lefebvre, B. 1996. Local Housing Market and the Social Reorganization of Space: The Case of the Lille Conurbation. *International Journal of Urban and Regional Research*, 20(2), 255-69.

Germany

- Ball, M. 1990. *Under one roof: Retail banking and the international mortgage finance revolution*. New York: St. Martin's Press.
- Borsch Supan, A. 1994. Housing Market Regulations and Housing Market Performance in the United States, Germany, and Japan. In R.-M. e. Blank (Ed.), *Social protection versus economic flexibility: Is there a trade off?* National Bureau of Economic Research Comparative Labor Markets Series (pp. 119-56). Chicago and London: University of Chicago Press.
- Börsch-Supan, A. und K. Stahl, 1991, Do Dedicated Savings Increase Personal Savings and Housing Consumption? An Analysis of the German Bausparkassen System. *Journal of Public Economics* 44, 265-297.
- Bundesministerium für Raumordnung, Bauwesen und Städtebau (BMBau), 1983, Die Eigentumsbildung im Wohnungsbau, in: BMBau (ed.), *Wohnungsmarkt und Wohnungspolitik*, No 07.014. Bonn: BMBau.
- Clapham, D. e. and et al. 1996. *Housing privatization in Eastern Europe*. Westport, Conn. and London: Greenwood Press.
- Clark, W. A. V., Deurloo, M. C. and Dieleman, F. M. 1997. Entry to Home-Ownership in Germany: Some Comparisons with the United States. *Urban Studies*, 34(1), 7-19.
- Dangschat, J. S. 1993. Berlin and the German Systems of Cities. *Urban Studies*, 30(6), 1025-51.
- Degner, Joachim, and Alfred Röher, 1977, Bausparkassen, in: Steffan, Franz (ed.), *Handbuch des Real- und Kommunalkredits*, Frankfurt: Fritz Knapp.
- Deutsch, E. 1996. Urban Land Lease and Social Housing Programmes. *Housing Studies*, 11(3), 435-58.
- Diamond, D. B., Jr. and Lea, M. J. 1992. The Decline of Special Circuits in Developed Country Housing Finance. *Housing Policy Debate*, 3(3), 747-77.
- Dieck, M. 1995. Housing Elders in Germany. In J. Pynoos, & P.-S. e. Liebig (Ed.), *Housing frail elders: International policies, perspectives, and prospects* (pp. 112-33). Baltimore and London: Johns Hopkins University Press.
- Dienemann, O. 1993. Housing Problems in the Former German Democratic Republic and the 'New German States'. In G. e. Hallett (Ed.), *The new housing shortage: Housing affordability in Europe and the USA*. (pp. 128-50). London and New York: Routledge.
- DiPasquale, D. and Glaeser, E. L. 1999. Incentives and Social Capital: Are Homeowners Better Citizens? *Journal of Urban Economics*, 45(2), 354-84.
- Dorn, V. 1997. Changes in the Social Rented Sector in Germany. *Housing Studies*, 12(4), 463-75.
- Ehrmann, T. and Biedermann, R. 1990. The Interest in Prima Facie Inefficient Institutions: Housing, Supply-Subsidies and the Role of Nonprofit Firms. *Kyklos*, 43(2), 277-84.
- Epple, K. and Schafer, R. 1996. The Transition from Monopoly to Competition: The Case of Housing Insurance in Baden-Württemberg. *European Economic Review*, 40(3-5), 1123-31.
- Expertenkommission Wohnungspolitik, 1995, *Wohnungspolitik auf dem Prüfstand*. Tübingen: Mohr.
- Faist, T. and Haussermann, H. 1996. Immigration, Social Citizenship and Housing in Germany. *International Journal of Urban and Regional Research*, 20(1), 83-98.
- Frankel, A. B. 1992. The Decline of Special Circuits in Developed Country Housing Finance: Comment. *Housing Policy Debate*, 3(3), 779-82.
- Hallett, G. e. 1993. *The new housing shortage: Housing affordability in Europe and the USA*. London and New York: Routledge.
- Heuer, Jürgen, 1985, *Lehrbuch der Wohnungswirtschaft*, Frankfurt: Fritz Knapp.

- Homburg, S. 1993. An Analysis of the German Tenant Protection Law. *Journal of Institutional and Theoretical Economics*, 149(2), 464-74.
- Homburg, Stefan, 1995, Staatseingriffe auf dem Wohnungsmarkt und Marktunvollkommenheiten, in: BMBau (ed.), *Materialband mit Sondergutachten im Auftrag der Expertenkommission Wohnungspolitik*. Bonn: BMBau.
- Jaedicke, W., and Wollmann, H. 1990. In Van Vliet—, W. (ed.). *International Handbook of Housing Policies and Practices*. New York: Greenwood Press. 127-154.
- James, E. e. 1989. *The nonprofit sector in international perspective: Studies in comparative culture and policy*. Yale Studies on Nonprofit Organizations, New York and Oxford: Oxford University Press.
- Jappelli, T. 1992. The Decline of Special Circuits in Developed Country Housing Finance: Comment. *Housing Policy Debate*, 3(3), 783-92.
- Jokl, Stefan, 1998, *Wohnungsfinanzierung*, Frankfurt: Fritz Knapp.
- Kelley, E. W., Jr. 1995. Statement to the U.S. Senate Committee on Banking, Housing, and Urban Affairs, July 13, 1995. *Federal Reserve Bulletin*, 81(9), 841-44.
- Kemp, P. 1990. Income-Related Assistance with Housing Costs: A Cross-national Comparison. *Urban Studies*, 27(6), 795-808.
- Kleiber, W. 1993. The Urban Land Market in Germany and Other European Countries. In W. Puschra, & K.-y. e. Kim (Ed.), *Housing policy in the 1990s: European experiences and alternatives for Korea*: Papers and discussions from the joint KDI/FES conference. (pp. 41-146). Seoul: Korea Development Institute; Seoul: Friedrich-Ebert-Stiftung Cooperation Office.
- Kleinman, M. 1996. *Housing, welfare and the state in Europe: A comparative analysis of Britain, France and German*. Lyme, N.H.: Elgar; distributed by American International Distribution Corporation.
- Lea, M. J. and Diamond, D. B., Jr. 1992. Housing Finance In Developed Countries: An International Comparison of Efficiency. *Journal of Housing Research*, 3(1), 1-271.
- Liebig, P. S. 1995. Federalism and Suitable Housing for Frail Elders: Comparing the Policies of Four Nations. In J. Pynoos, & P.-S. e. Liebig (Ed.), *Housing frail elders: International policies, perspectives, and prospects* (pp. 239-74). Baltimore and London: Johns Hopkins University Press.
- Marcuse, P. and Schumann, W. 1992. Housing in the Colours of the GDR. In B. Turner, J. Hegedus, & I. e. Tosics (Ed.), *The reform of housing in Eastern Europe and the Soviet Union*. (pp. 74-144). London and New York: Routledge.
- McCrone, G., and Stephens, M. 1995. *Housing Policy in Europe*. London: UCL Press. 45-73.
- Muellbauer, J. 1992. Anglo-German Differences in Housing Market Dynamics: The Role of Institutions and Macro Economic Policy. *European Economic Review*, 36(2-3), 539-48.
- Muellbauer, J. 1994. Anglo-German Differences in Housing Market Fluctuations: The Role of Institutions and Macroeconomic Policy. *Economic Modelling*, 11(2), 238-49.
- Mulder, C. H. and Wagner, M. 1998. First-Time Home-Ownership in the Family Life Course: A West German-Dutch Comparison. *Urban Studies*, 35(4), 687-713.
- Pannell, B. 1994. The German Bausparkassen system. *Housing Finance*, 23(August), 26-29.
- Pfeiffer, U. 1993. Housing Markets and Housing Policy in Germany and Conclusion for the Housing Market in Korea. In W. Puschra, & K.-y. e. Kim (Ed.), *Housing policy in the 1990s: European experiences and alternatives for Korea*: Papers and discussions from the joint KDI/FES conference. (pp. 280-337). Seoul: Korea Development Institute; Seoul: Friedrich-Ebert-Stiftung Cooperation Office.
- Pollakowski, H. O. 1989. Housing Patterns and Mobility of the Aged: The United States and West Germany: Comment. In D.-A. e. Wise (Ed.), *The economics of aging* (pp. 115-18). National Bureau of Economic Research Project Report series, Chicago and London: University of Chicago Press.
- Power, A. 1993. *Hovels to high rise: State housing in Europe since 1850*. London and New York: Routledge.
- Priemus, H. and Boelhouwer, P. 1999. Social Housing Finance in Europe: Trends and Opportunities. *Urban Studies*, 36(4), 633-45.
- Pynoos, J. and Liebig, P. S. e. 1995. *Housing frail elders: International policies, perspectives, and prospects*. Baltimore and London: Johns Hopkins University Press.
- Rischke, C.G.

- Schäfer, O. 1987. German Bausparkassen help finance nine million homes. *Housing Finance International*, (May), 30-33.
- Scholten, U. 1997. Subvention des selbstgenutzten Wohneigentums: Vorsparförderung oder Nachsparförderung, *Finanzarchiv* 54, 27-50.
- Scholten, U. 2000. Rotating savings and credit associations in developed countries; the German-Austrian Bausparkassen. *Journal of Comparative Economics*, 28, 340-363.
- Schwager, R. 1994. On the West German Tenants' Protection Legislation: A Comment. *Journal of Institutional and Theoretical Economics*, 150(2), 411-18.
- Smith, J. and Oxley, M. 1997. Housing Investment and Social Housing: European Comparisons. *Housing Studies*, 12(4), 489-507.
- Stahl, K. 1989. Housing Patterns and Mobility of the Aged: The United States and West Germany. In D.-A. e. Wise (Ed.), *The economics of aging* (pp. 93-115). National Bureau of Economic Research Project Report series, Chicago and London: University of Chicago Press.
- Strassmann, W. P. 1991. Housing Market Interventions and Mobility: An International Comparison. *Urban Studies*, 28(5), 759-71.
- Tomann, H. 1990. The Housing Market, Housing Finance and Housing Policy in West Germany: Prospects for the 1990s. *Urban Studies*, 27(6), 919-30.
- Tomann, H. 1996. Private Home-Ownership Finance for Low-Income Households. *Urban Studies*, 33(10), 1879-89.
- Tomann, H. 1996. Germany. In Balchin, P. (ed.). *Housing Policy in Europe*. London: Routledge, 51-66.
- Turner, B., Hegedus, J. and Tosics, I. e. 1992. *The reform of housing in Eastern Europe and the Soviet Union*. London and New York: Routledge.
- Ulbrich, R. and Wullkopf, U. 1993. Housing Affordability in the Federal Republic of Germany. In G. e. Hallett (Ed.), *The new housing shortage: Housing affordability in Europe and the USA*. (pp. 98-127). London and New York: Routledge.
- Waldorf, B. S. 1990. Housing Policy Impacts on Ethnic Segregation Patterns: Evidence from Dusseldorf, West Germany. *Urban Studies*, 27(5), 637-52.

New Zealand

- Murphy, L. 1996. Whose Interest Rates? Issues in the Development of Mortgage-Backed Securitisation. *Housing Studies*, 11(4), 581-89.
- Murphy, L. 1997. New Zealand's housing reforms and accommodation supplement experience. *Urban Policy and Research*, 15(4), 269-278.
- Murphy, L. and Kearns, R. A. 1994. Housing New Zealand Ltd: Privatisation by Stealth. *Environment and Planning A*, 26(4), 623-37.
- O'Donovan, B. and Rae, D. 1997. The Determinants of House Prices in New Zealand: An Aggregate and Regional Analysis. *New Zealand Economic Papers*, 31(2), 175-98.
- Thorns, D. C. 1988. New Solutions to Old Problems: Housing Affordability and Access within Australia and New Zealand. *Environment and Planning A*, 20(1), 71-82.

United States

- Allen, P.R., & Van Order, R. 1992. High-LTV lending. *Secondary Mortgage Markets*, Winter 1992/92, 20-23.
- Ambrose, B.W., & Goetzmann, W.N. 1998. Risks and incentives in underserved mortgage markets. *Journal of Housing Economics*, 7, 274-285.
- Avery, R.B. et al. 1996 Credit risk, credit scoring, and the performance of home mortgages. *Federal Reserve Bulletin* 82(7), 621-648.
- Benjamin, J. D., & Sirmans, C. F. 1987. Who benefits from mortgage revenue bonds? *National Tax Journal*, 40, 115-120.

- Bowcott, G. 1998. Branching out into subprime. *Mortgage Banking*, June 1998, 89-93.
- Canner, G.B., & Mittal, M. 1994. Private mortgage insurance. *Federal Reserve Bulletin*, 80(10), October 1994, 883-899.
- Culver, C.S. 1998. It's not just about mortgage insurance anymore. *Mortgage Banking*, October 1998, 56-69.
- DeMuth, J. 1999. The selling of two systems. *Mortgage Banking* 59(7), 16-21.
- DeZube, D. 1998. The stress of subprime servicing. *Mortgage Banking*, October 1998, 103-112.
- Durning, D. 1987. The Efficiency and Distribution of Mortgage Revenue Bond Subsidies: The Effects of Behavioral Responses. *Journal of Policy Analysis and Management*, 7(1), 74-93.
- Durning, D., & Quigley, J. M. 1985. On the Distributional Implications of Mortgage Revenue Bonds and Creative Finance. *National Tax Journal*, 38(4), 513-23.
- Durning, D. W. ed. 1992. *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*. Boston, USA: Kluwer Academic Publishers.
- Fannie Mae. 2000. Website on Timely Payment Rewards mortgage. <http://www.fanniemae.com/news/pressreleases/0491.html>.
- Fannie Mae. 2000. Website on Fannie Mae's mission. http://www.fanniemae.com/news/speeches/speech_94.html
- Feshbach, D., & Schwinn, P. 1999. A tactical approach to credit scores. *Mortgage Banking*, February 1999, 46-52.
- Gainer, W. J. 1984. Mortgage Revenue Bonds: Their Costs Outweigh Their Benefits to Homebuyers. *Housing Finance Review*, 3(4), 457-65.
- Government Accounting Office. 1997. Native American housing: information on HUD's housing programs for Native Americans. GAO/RCED-97-64. Washington, GAO. 31 pages.
- Hirad, A., & Zorn, P.M. 2000. A little bit of knowledge is a good thing: empirical evidence of the effectiveness of pre-purchase homeownership counseling. *Freddie Mac Working Paper*. November 2000.
- Kane, E.J. Housing finance GSEs: who gets the subsidy? *Journal of Financial Services Research*, 15(3), 197-209.
- Kaufman, G. ed. 1981, *Efficiency in the municipal bond market: the use of tax-exempt financing for "private" purposes*. Greenwich, Conn.: JAI Press.
- Knight, G. 1996. A solid foundation for affordable lending. *Mortgage Banking*, January 1996, 69-76.
- Ling, D. C. and Smith, M. T. 1988. Another Look at Mortgage Revenue Bonds [The Efficiency and Distribution of Mortgage Revenue Bond Subsidies: The Effects of Behavioral Responses]. *Journal of Policy Analysis and Management*, 7(3), 562-64.
- Mahoney, P.E., & Zorn, P.M. 1997. The promise of automated underwriting: Freddie Mac's Loan Prospector. *Housing Finance International*, July 1997, 13-21.
- Marlin, M. R. 1991. The hidden costs of private activity tax-exempt bonds. *Review of Regional Studies*, 21, 277-290.
- Mortgage Bankers Association of America. 1998. *Residential Mortgage Banking Basics*. Washington, the Association, 47 pages.
- National Council of State Housing Agencies. 1998. *State HFA Factbook*. 1997 NCSHA Annual Survey Results. Washington, D.C.: The Council.
- Pafenberg, F. 1999. The changing face of mortgage lending: the subprime market. *Real Estate Outlook*, March 1999, 6-7.
- Poterba, J. M. 1989. Tax reform and the market for tax-exempt debt. *Regional Science and Urban Economics*, 19, 537-562.
- Quercia, R.G., and Wachter, S.M. 1996. Home ownership counseling performance: how can it be measured? *Housing Policy Debate*, 7(1), 175-200.
- Sharfman, B. 1990. Fannie Mae and the U.S. housing finance system: a model for others? *Housing Finance International*, December 1990, 17-21.
- Steinbach, G.H. 1998. Making risk-based pricing work. *Mortgage Banking*. September 1998, 11-18.
- Stamper, M.K. 1997. Revisiting targeted-affordable lending. *Secondary Mortgage Markets*, 14(3). 17-24.