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THE CANADIAN HOUSING SYSTEM

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THE CANADIAN HOUSING SYSTEM IN THE 1990s

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SECTION ONE:

MEETING THE HOUSING NEEDS OF CANADIANS

Canada at a Glance

By almost any international standards, Canadians are well housed. This is a significant achievement considering the vastness of the land (almost 10 million square kilometres), the relatively young age of the country (125 years old in 1992), and the cultural diversity and growth of its population, prompted by high levels of immigration in recent decades. According to the Census of Canada, the population in 1992 was 27.8 million, double that of 1951.

Approximately 83 percent of Canadians live in or immediately adjacent to urban areas, and 47 percent live in cities of more than 500 000 people. Most settlements stretch along the southern border with the United States and are concentrated in 25 metropolitan areas, as defined by the Census. Canada has three large metropolitan centres: Toronto with 3.89 million people, Montreal with 3.13 million, and Vancouver with 1.6 million. More than 85 000 people live in Yukon and the Northwest Territories, including several thousand who live above the Arctic Circle. The Canadian population, like that of most other Western countries, is aging. In 1991, the average age was 33.5 years, up from 31.6 years in 1986. There were 10 million households; the housing stock consisted of 10.7 million private dwellings and 31 000 collective dwellings (homes for seniors, institutions, and religious collectives).

No single "housing system" serves the housing needs of the people of this vast land. Housing in Canada is shaped by cultural factors ranging from the life styles of the aboriginal person to those of the fisherman in one of Canada's coastal communities, the farmer whose settlement encompasses buildings for equipment and shelter for animals, the miner in a northern resource town, and the recent immigrant who has chosen to retain some cultural traditions upon settling in one of the large metropolitan areas. Housing is also shaped by geographic factors that influence the choice of building materials, type of construction, and time

Canada's Provinces and Major Cities

of year that housing is constructed, and that, in some cases, limit the seasonal accessibility of housing. Socio-economic factors influence housing styles, the size and form of houses, and where and how people can afford to live. In addition, Canadians have individual preferences, which

Net Residential Property Values as a Percentage of Total Net worth of Canadian Households

	1977	1984
CANADA	71%	68%
Atlantic Provinces	83%	72%
Quebec	68%	63%
Ontario	73%	75%
Prairies	63%	61%
British Columbia	75%	64%

(Note: Sampling methodology excluded smaller provinces, territories)

means that the house becomes a personal statement, made by the home owner through renovations and additions or, in some cases, through the actual building of the house.

The house represents the single most important financial asset for the two thirds of Canadians who own their own home. The decision to buy or rent a dwelling is still among the most important financial and emotional decisions that any household makes. The capital tied up in a residence, minus the outstanding mortgage, accounts for 68 percent of the total net worth of the average Canadian household. From a national perspective, it is estimated that the total housing stock represents as much as 60 percent of the total wealth of the nation. Housing accounts for approximately 70 percent of the total value of all real property, and most of this value resides in the stock of single-family houses, most of which has been built in the post-war era.

The housing industry in Canada has succeeded through the years by evolution, not revolution. Changes are small, and improvements are incremental and often imperceptible. The housing system is characterized by formal and informal partnerships between the various entities that play a role in providing shelter — between the three key proponents of housing (private, public, and not-for-profit sectors) and between the various levels of government. This partnership of private and public interests has secured a diversity of housing types for Canadians, with a delivery system compatible with the resources of the country.

The housing industry that has grown up in the post-war era has done so with a minimum of capital investment in the production facilities themselves, very little standardization in the actual products, varying skill levels in the labour force, a cautious approach to adapting new technologies, and reliance upon a myriad of subcontractors, suppliers, distributors, and material producers. This is an industry that is highly complex in its organizational structure, often fragmented in the production process, and subject to major cycles in the economy. There is also a distinct local nature to this industry. Housing producers do not operate nationally, and the regional and local variations in the way that housing is built across the country are more significant than apparent similarities. One common feature is the pervasive use of light weight wood-frame construction, otherwise known internationally as "2 x 4" construction. This form of construction, used throughout Canada, relies on dimensional lumber for bearing support and enclosure, in contrast to the masonry support and enclosure systems prevalent in many other countries.

It is against this background that we can begin to examine how Canadians are housed, the role that the housing sector plays in the economy of the country, the way housing markets operate in Canada, and the respective roles of the private and public sectors in providing for the housing needs of Canadians.

How Well are Canadians Housed?

Canadians have earned an international reputation for being among the best housed people in the world. Home ownership today is enjoyed by 62.8 percent of Canadian households, and 85 percent of Canadians can afford adequate shelter in the private market without any form of direct assistance from government. Still, more than 1.16 million households in Canada (12.2 percent of total households) have a housing problem as defined by Canadian standards; either their dwellings are substandard or crowded or their incomes are not sufficient to purchase suitable housing on the private market.

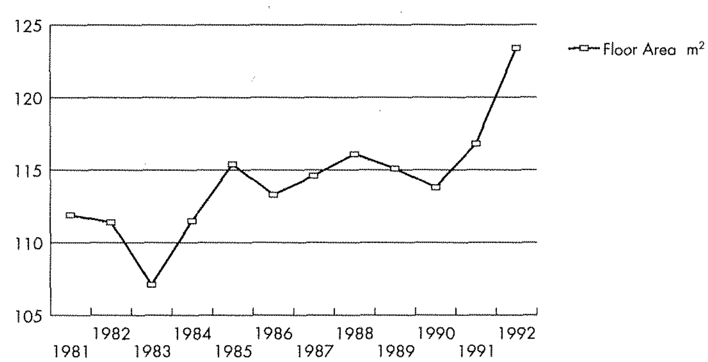
Over time, Canadians have continued to raise the minimum level of housing that they deem acceptable. These increasing standards reflect long-term growth in Canadian per capita income, rising consumer expectations, higher standards set by public regulator agencies, and advances in technology that have brought about improved building methods and materials. For example, at the beginning of the 1970s, more than half a million dwellings (9.4 percent of the total stock) lacked basic facilities such as hot and cold water, inside toilets, or installed baths and showers. By 1982, the percentage had been reduced to just 1.6 percent.

Just as standards have improved, so have the expectations of those who can afford to satisfy their own housing needs. The average size of new houses increased from 111.9 square metres (1200 sq. ft.) in 1981 to 116.8 square metres (1250 sq. ft.) in 1991. Forty years ago, an 82-square-metre (900-sq.-ft.) house with two bedrooms was considered an adequate starter home. Today's starter home will have two bathrooms, three bedrooms, living room, dining room, kitchen, and, possibly, family room. Features will include at least a single garage and space to park an additional car, landscaping, a fireplace, and carpeting throughout. The home will be far superior to its predecessor in durability of materials and finishes, energy efficiency, safety and security, and guarantees from the builder. It is the housing industry that has satisfied these needs and expectations of potential home owners.

Need for Repair By Age of Dwelling, Canada, 1991

Period Built	Age of Stock (% of Total Stock)	Need for Repair (% of Total Stock) Major	Minor	Maintenance Only
Before 1945	17.7	38.4	24.9	13.6
1946-1960	17.6	26.0	27.5	20.9
1961-1970	18.4	16.2	20.4	19.4
1971-1980	24.7	17.3	22.6	28.1
1981-1991	21.6	1.9	4.5	17.9
Total Stock (1991)	10 018 265	817 855	2 365 705	6 834 705

Size of New Houses Financed Under NHA, Canada, 1981 - 1992



Evolution of the Housing Industry

Home building is a business activity that has its roots in Canada's immediate post-war era, but whose overall direction can be traced as far back as the Dominion Housing Act of 1935. Through this Act, the federal government, in close association with the private investment community, chose to move with a private housing market and to encourage private enterprise to move into home building operations. While the private sector is the primary source of housing production, the federal government has been directly involved in measures to ensure adequate sources of capital to fuel the industry. This involvement has expanded over the decades from an initial focus on improving the ability of moderate-income families to buy a home to a broader mandate to provide, through subsidy programs, rental accommodation for low-income households and special-needs housing for seniors, aboriginal peoples, and people with disabilities. Through these 40 years, the federal government has never wavered from its commitment to the private sector as the producer of the housing stock.

Except in special cases, today's governments have become the passive party in the partnership of private and public interests that characterizes the Canadian housing system. However, this has not always been the case. In the post-war period, governments saw their role as fixing up market shortcomings and helping those whom the market could not serve.

After World War II, the housing industry evolved with direct government assistance to small builders, born amid a national housing crises of major proportions. The housing demand created by returning troops far exceeded the capacity of what remained of a pre-war industry. It was the intent of government to conform to the traditions of free markets and to find ways to re-establish private enterprise as the provider of Canada's needs in the housing sector. However, direct assistance soon gave way to indirect intervention, primarily to funnel adequate sources of financing to the industry, and this influenced not only housing production but also the two other paramount concerns of the time — employment creation and income distribution. An "integrated" plan, launched in 1946, gave encouragement, security, and confidence to the many small builders who were entering the home building industry for the first time.

This initiative coincided with the founding of Canada (originally Central) Mortgage and Housing Corporation (CMHC) in 1946, a quasi-public corporation whose primary responsibility was to administer the National Housing Act (NHA). This Act provided "insured loans" directly to builders and thereby broadened the supply of residential mortgage funds. This insured loans program, providing the type of security required to sustain private lending for high-ratio loans, was instrumental in bringing Canada's large chartered banks into the mortgage business in the mid-1950s. Governments also became involved in constructing and managing large public housing projects, buying and developing land in both downtown "urban renewal" projects and suburban residential subdivisions. They also used new housing construction to stimulate the economy.

In the mid-1960s, the housing industry, which until then had concentrated almost exclusively on constructing single-detached houses, began to diversify. There was the rise of major private land developers, who bought vast tracts of farm land and converted them into serviced lots for sale to the small builders; the rise and then decline of the rental apartment builders; the advent of the large, vertically integrated development companies that combined residential with commercial development and some of whom traded on the public stock market; and the introduction of the condominium form of tenure, which gave new life to apartment construction. In the early 1970s, the newest segment of the housing industry — the renovation industry — began to take shape. This industry has continued its upward trend to the point that it now represents half of all residential construction expenditures.

The early 1990s have been a period of retrenchment for housing firms in many parts of the country. The legacy of the current recession is likely to be a dramatic restructuring of many sectors of the Canadian economy, including the home building industry, which should yield substantial gains in productivity, lower costs, negligible inflationary pressures, and increased sensitivity to market demands in the decade ahead. Most levels of government today provide support to private housing markets through regulation of the real property side of the housing sector; regulation of the financial side of the housing sector; and the provision and maintenance of the public infrastructure upon which all housing depends. In conjunction with industry and trade associations, governments are also involved in improving the quality of housing through research, technology transfer, and other policy measures.

Three important legacies remain from the early era of CMHC. First, CMHC is still very active in housing at the national level and continues with its primary role in guaranteeing residential mortgages under the National Housing Act. These guarantees cover first and second mortgages, either for purchase or to fund renovation work. More than one third of all mortgages issued in Canada since World War II have been insured under the CMHC program. In 1992, $70 billion worth of mortgage insurance was in force. CMHC also guides federal investment in social housing in co-operation with the provinces and territories, municipalities, not-for-profit organizations, co-operatives, and the private sector.

Second, the 2 x 4 light frame wood construction promoted through the research and development efforts of CMHC and the National Research Council (NRC) is as firmly entrenched in Canada today as it was three decades ago. This system was used to build the starter homes (storey-and-a-half units) after the war, and refinements have had more to do with rationalizing the production sequence than with the actual building materials themselves. Basic changes to the 2 x 4 system have included the use of 2 x 6 nominal lumber for the walls in response to energy requirements and significant increases in the use of value-added components and assemblies in the construction sequence. This form of construction is now used in many parts of the world, often with the assistance of Canadian expertise.

Finally, almost exclusive reliance on the private sector and on the small builder have remained features of Canadian home building activity. In numbers, small builders dominate the home building industry. A large number of small firms build fewer than 25 houses each per year, a much smaller number of medium-sized firms build 25 to 100 houses per year, and only a handful of large firms build 100 or more houses per year. However, in revenues, the medium- and large-sized firms dominate. It is estimated that fewer than five percent of building firms (being the medium and large builders) account for more than 50 percent of total revenues, and their market share appears to be increasing.

When we speak of home builders and renovators, we are actually referring to a residential construction industry that comprises far more than builders and renovators — it also includes general contractors, land developers, trades and sub-contractors, real-estate agents, manufacturers of mobile and modular housing, material and equipment producers, wholesale and retail distributors, and consultants. It is a $45 billion annual business that involves one out of every ten jobs in Canada today.

Housing and the Economy

Housing is not just a matter of shelter for Canadians; it is also a vital part of the Canadian economy. In 1992, total residential expenditures were $45.81 billion (6.59 percent of Gross Domestic Product (GDP)), and new residential construction has typically fluctuated between two and five percent of GDP throughout the post-war period. Three distinct effects can be identified for the residential sector: the direct impact of jobs and income created by construction projects themselves; the indirect impact, again on jobs and income, within the industries that produce materials and other inputs to support construction activities; and the induced impact on jobs and income created by the multiplier effect and felt throughout the economy. The magnitude of these consequences can be deduced from the level of expenditures in the residential sector; although there has been a relative decline in the rate of residential construction compared with growth in the overall economy, spending levels are still significant.

Expenditures on residential construction,

Housing Expenditures and GDP - Canada, 1982-1993
(in Millions of Dollars)

Year	Gross Domestic Product	Residential Expenditures		
		Total Construction	Total Expenditure $	Total Expenditure as % of GDP
1982	374,442	15,186.1	17,648	4.71
1983	405,717	18,362.1	21,423	5.28
1984	444,735	18,939.7	22,348	5.03
1985	477,988	20,987.8	25,238	5.28
1986	505,666	25,184.2	30,823	6.10
1987	551,597	32,591.3	39,539	7.17
1988	605,906	34,841.2	43,899	7.25
1989	650,748	38,515.1	49,152	7.55
1990	670,952	35,975.3	44,468	6.63
1991	675,928	30,876.7	40,758	6.03
1992	688,541	33,010.0	44,007	6.39
1993	710,723	32,728.7	43,390	6.11

including new dwelling construction, major alterations and improvements, and supplementary costs, were $33.53 billion in 1992. Transfer costs, including fees, commissions, disbursements, and taxes, added another $11.75 billion. In comparison, $42.81 billion was spent on non-residential construction. Spending on major alterations and improvements represented 44.1 percent of all direct residential construction expenditures, and this percentage has been steadily increasing over the years.

This level of investment in residential construction creates new jobs and business opportunities and provides one of the highest employment multipliers in the Canadian economy. For every $100 million of expenditures in new residential construction, 1145 person-years of direct employment are generated, and the figure jumps to 2060 person-years for the same level of investment in renovation work. For every direct job in new residential construction, 1.12 secondary jobs are created to produce the materials, components, and services needed to build a house.

It is now the policy of the federal government to rely less on the housing sector to stimulate the economy than it has in the past. Current public policy, supported by the private sector, is to avoid the use of monetary policy to promote housing production or target-specific initiatives to protect housing from periods of instability in the overall economy. This policy reflects the reduced importance of housing as an instrument of public policy and the awareness of the relatively small economic effects on private investment associated with public subsidies in the housing sector.

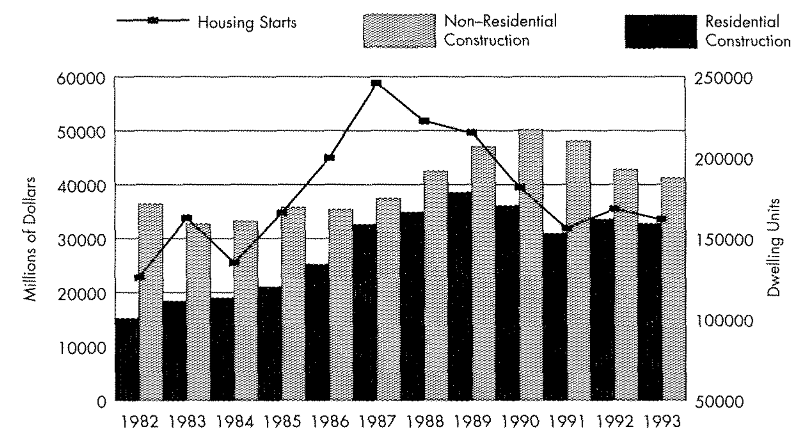
This shift in national public policy does not diminish the importance of the housing stock to the economic well-being of the country. The total stock, not just new construction, is a critical component of national wealth and a key source of revenue for local governments. Residential property is the most important tangible capital asset for Canadians, and this economic wealth is almost entirely in private hands and spread throughout all income levels. Residential property is the most common form of collateral pledged by an individual against bank loans, including home mortgages, personal loans, and even business loans.

This residential stock is also a significant source of tax revenue for local governments, in the from of property tax levied on the basis of value. Many small communities rely almost exclusively on residential property taxes for their revenues, while larger centres can, in addition, assess commercial properties. These revenues support schools, the building of roads, and the provision of services, all of which are essential to maintaining the quality of the community. What is the size of this asset base?

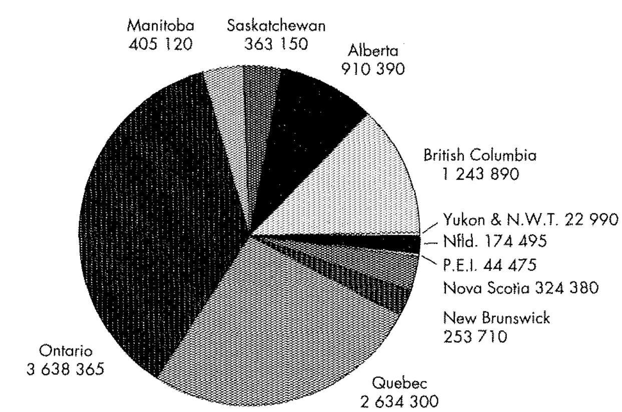
In 1991, the total housing stock was 10.02 million units, of which 56.9 percent were single-family detached houses, 33.3 percent were apartments, 5.2 percent were semi-detached and duplex units, and the remaining 4.6 percent were row houses. Private individuals own and occupy 62.8 percent of the total stock, and the remaining 37.2 percent are rental. Approximately six percent of the rental stock is owned by various levels of government, not-for-profit organizations, and co-operative housing groups and is primarily targeted to low-income groups and households with special housing needs. New housing is added to the total housing stock at an annual rate that varies according to demand, as well as the prevailing economic cycle. Over the past 20 years, the production of new housing units has ranged from a high of 268 529 in 1973 to a low of 125 860 in 1981. The production rate, averaged over the past five years, is approximately 7.7 units per 1000 persons.

In Canada, the family house usually represents the single largest source of personal wealth for the household, and the importance of investment value in making a home purchase cannot be underestimated. Home owners, and those aspiring to ownership, see owning a home as a way of improving their financial situation in the long run. Inflation in property prices and the capital gains tax exemption for the principal residence can increase wealth generated by ownership. In Canada, a principal residence is not subject to estate taxes when acquired by a member of the family, and this freedom from tax burden has promoted the intergenerational transfer of the accumulated equity in a home. However, ownership, per se, is no guarantee of wealth accumulation, as one study carried out in 1984 concluded. In the period from 1977 to 1984, home owner wealth did not appreciably increase as a result of property assets. However, when compared with renters, owners did enjoy levels of appreciation in their equity that exceeded those possible with other forms of investment. This investment potential drove the "trade-up" market, made stable neighbourhoods very attractive, and strengthened the resolve of renters to move into ownership as soon as possible.

Construction Expenditures and Housing Starts, Canada, 1982 - 1993



Total Housing Stock by Province and Territory, 1992*



*Total Housing Stock 10 018 265

Legal Framework for Private Housing Markets

The housing market is just one part of a larger set of property markets that function primarily through private sector allocations of real and financial resources, with relatively little direct participation by federal, provincial, and local governments. Housing markets share in common with commercial property markets the fundamental right to engage in transactions in land privately and efficiently. There is perhaps no greater role for government than that of providing the legal framework to protect these private rights and to facilitate the operation of private market mechanisms. In the case of housing markets, this legal framework includes, but is not limited to, seven types of laws (see sidebar next page).

These laws allow home builders to proceed with their business transactions with minimal interference from governments or others; to seek redress or remedial measures if obligations are not met; to buy and sell interests in real property for personal financial gain; and to guarantee rights of tenure to tenants of property. The importance of this legal framework is often overlooked in favour of the more typical function of government in development — that of regulator.

Legal Framework for Housing Markets

- Provincial enabling legislation defines the process by which localities may regulate the use of land, the construction of buildings, standards of property maintenance, and types of occupancy. These laws provide local communities with the powers to regulate what is built, and where and how, within their jurisdiction.
- Land-use laws, enacted by local governments, prescribe the actual restrictions on development for specific parcels, covering such factors as height, use, and density. These laws enable municipalities to carry out plans for the efficient use of land and the extension of the infrastructure network.
- Environmental laws, both federal and provincial, can limit development in environmentally sensitive areas or can prescribe procedures that must be followed to assess the environmental impact of particular developments.
- Conveyance laws, enacted through provincial statutes, define the procedures for recording interests in land and for resolving disputes over the legitimacy of land claims. These laws also define the procedures that must be followed in transferring an interest in land from one owner to another.
- Contract laws regulate the enforceability of legally binding promises. Virtually all of the relationships between builders and their material suppliers, sub-trades, architects, lawyers, brokers, bankers, and customers are defined by enforceable contracts.
- Landlord-tenant laws, both provincial and local, define the legal rights and obligations of landlords and tenants.
- Consumer laws regulate consumer transactions. Typically such laws require disclosure of certain types of information to consumers and require manufacturers of certain products to provide warranties.

Regulation of the Housing Sector

Government regulation of housing development in Canada has generally had a positive effect on the production and quality of housing. Two major themes characterize the attitude to regulating this sector. First, society concedes that government must regulate the use of land and the construction of buildings to ensure public health, safety, and welfare. Second, regulation is acknowledged as primarily a local responsibility since the effects, particularly those of construction, are local. Two key types of regulation affect the housing sector and are an integral part of the residential development process — the regulation of buildings and the regulation of land use.

Regulation of Buildings

Despite the fact that building codes, occupancy requirements, and maintenance standards are a provincial and territorial responsibility and are administered locally, the federal government has been instrumental in promoting uniformity in regulating housing construction across Canada through both CMHC and the NRC. This active stance dates back to the early post-war era, when CMHC entered directly into matters pertaining to the quality of construction and subdivision design and developed a close working relationship with the home building industry that has been maintained throughout the years. CMHC building inspectors raised the level of quality in the industry through involvement in all new homes financed under the NHA and, beyond their mandate, trained, informed, and helped direct the post-war army of small builders, who came to rely upon them to help police subcontractors.

The research programs of both CMHC and the NRC were instrumental in achieving progress with new materials and technologies. In fact, the National Building Code prepared and issued by the NRC became the most direct technology transfer vehicle in the housing industry and has been adopted by all provinces and territories (with modifications to reflect local conditions). In recent years, federal initiatives have promoted energy conservation throughout the home building industry, and further research has advanced regulations directed at improving thermal and air-handling performance in houses.

Unfortunately, government regulations, building codes, and standards have not kept pace with the rapid rise of the renovation industry. Regulations for new construction are often not appropriate for renovation, and confusion and conflict frequently exist between provincial and municipal regulations, although these are less severe when it comes to the single-family house.

Regulation of Land Use

Land-use controls, which at one time were simply stated in the form of zoning and subdivision requirements, have undergone a tremendous expansion in the past two decades. Regulations that govern the spatial distribution (use) and the intensity (density) of land development are intended to provide public benefits through more rational planning of the physical environment. Public concerns about environmental matters have vastly expanded the regulatory framework, and concern about the adequacy of infrastructure has added to the complexity of building in many localities. In some provinces, regulations are coming under closer scrutiny in response to charges that they are used to raise funds for local improvements, to slow or inhibit growth by some communities, to discourage certain types of "undesirable" development such as low-income housing, and to protect the status quo of existing neighbourhoods. Another charge is that they have the effect of increasing housing costs.

Local governments, who control the regulatory process and depend on property taxes as their principal source of revenue, have turned more and more to another type of development regulation — impact fees (also known as land development charges, lot levies, connection fees, or acreage allowances). Some provinces have granted municipalities the right to levy fees against new developments to pay for capital improvements that are required by the development, and these fees have even been extended to cover other costs, such as education, previously borne by the local tax base. These fees are gradually incorporated into the costs of future serviced land for housing, and this process is sometimes said to warrant a reassessment of the cumulative impact of land-use and development regulations.

One of the consequences of the recession of the 1990s is a close reexamination of the effects of regulation, particularly on housing affordability. Some municipalities are now rolling back fees and examining ways to facilitate approvals as a way of encouraging new housing development. However, the trends of the past indicate that pressures will continue for more regulation of land use and that the process for obtaining approvals will continue to become longer, more complex, and therefore more costly.

New Home Warranty Programs

New home warranty programs are an important part of the self-regulation of the residential development industry in Canada. These programs exist at the provincial and territorial level across Canada, except in the Northwest Territories, and are entirely independent of government. Only Ontario has mandated the requirement for a new home warranty; programs in all other provinces have been established at the initiative of industry members themselves. Programs vary by province but share a basic set of services to protect both the builder and purchaser in a new home sale. Builders must qualify to enter the warranty program, and the costs of the program are assessed to the builder on a per unit basis. Throughout Canada, a warranty under the provisions of one of the provincial programs is a requirement for obtaining mortgage insurance on a new home purchase.

These programs offer four basic services. First, a purchaser receives security for a deposit that is part of a legal contract to purchase a new home from a builder. This provides assurance against default by the builder — for example, in cases where the builder enters bankruptcy or other legal proceedings that prevent the terms of the contract from being fulfilled. Second, the warranty covers workmanship and materials, usually for a period of one year, and this provides the purchaser with recourse for correcting deficiencies.

In some cases, this warranty may extend up to two years. Third, the warranty covers major structural defects for an extended period, usually five or ten years; this applies to those components that affect the structural integrity of the dwelling. Finally, the program offers dispute resolution services to resolve conflicts that may arise between the builder and the purchaser in the course of settling a claim under the provisions of the warranty.

Reliance on Public Infrastructure

The orderly production of housing also depends upon the services of government in an active role to complement its role as regulator. Government assumes responsibility for the planning, construction, and operation of the network of public services that support housing developments. These services range from the provision of water and sewage systems to the building and maintenance of roads and interprovincial highways. During the suburban growth boom from the 1950s to the 1970s, the federal, provincial, and municipal governments were involved in financing and creating massive amounts of infrastructure. During the early years of this expansion, municipal governments actually built the local roads, sewers, and water pipes through privately owned land to make suburban lots suitable for building, then charged "local improvement taxes" to gradually recover their expenditures from the owners of the resulting new housing. In many instances during that era, governments were also active land owners and developers, buying land in the path of urban expansion, planning and servicing it for housing, then selling it in programs to encourage home ownership. These government "land-banking" projects began the practice of including the costs of constructing services in the sale price of lots, which is now a standard method of financing services.

Also during this "boom" era, most costs of public services were gradually shifted to new developments. Today, almost all land development is done by the private sector, and developers are required to build specific services and facilities as a prerequisite for receiving the approval of local governments to create new subdivisions. Once built to government standards, most of this infrastructure is dedicated, at no cost, to the municipal government, which then provides for its maintenance. Except for occasional special initiatives, the federal government has now withdrawn from the field of infrastructure financing.

Four challenges now face governments in their traditional role of providing and maintaining the infrastructure that is essential to the housing industry. First, there is increasing pressure to assign the full costs of any new infrastructure required for a specific development to that development. This pressure is in response to declining sources of government assistance for community-

Typical Components of the Public Infrastructure

Movement Systems	Trucks
	Automobiles
	Bicycles
	Transit
	Facilities for Handicapped
Waste Management	Garbage Removal and Disposal
	Recycling
	Waste Water Collection and Treatment
Water Systems	Filtration and Storage
	Distribution to Users
	Fire Hydrants, Firefighting Pressures
Public Safety	Police
	Fire Protection Services
	Ambulance Service
	Medical Facilities
	Emergency Measures
Recreation	Active Recreation
	- sports fields
	- arenas
	- swimming pools
	- ice rinks
	Passive Recreation
	- parks
	- community centres
Schools	
Libraries	
Street Accessories	Lighting
	Fire Hydrants
	Signage
	Signals and Controls
	Benches and Trash Receptacles

wide infrastructure improvements and the unwillingness of taxpayers to pay higher taxes to finance extended services for future residents.

Second is the criticism that, in setting infrastructure standards, governments are imposing requirements and regulations that overstate infrastructure needs and discourage innovation. There is neither a uniform set of standards nor a common measure for determining infrastructure needs at different government levels.

Third, there is the cost of upgrading and maintaining aging infrastructure, clearly the responsibility of governments. However, local governments lack the revenues to cover such costs and cannot turn to new developments to shoulder the burden in every case.

Finally, it is also important to ensure that the infrastructure is provided at a rate that allows for an adequate supply of serviced land.

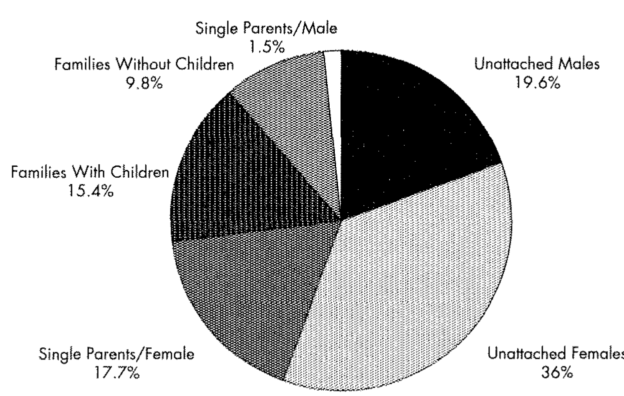
Privatization of infrastructure may be the solution. Privatization is a relatively new trend in Canada, although it has existed in some countries for many years. In its simplest form, a municipality contracts with a private business, a for-profit or not-for-profit corporation, or perhaps another government, to provide services such as garbage collection. Services are paid for through general tax revenues or user fees. In its more complex form, public-private partnerships involving private sector financing, construction, ownership, or operation of facilities and services may replace those previously run exclusively by the public sector. From the perspective of the home building industry, this redefinition of the public responsibility may play a key role in restoring aging infrastructure and expanding the existing network to support new development.

Issues of Housing Affordability

The affordability of housing is an important issue that concerns Canadians and their governments. To monitor affordability, CMHC publishes an Affordability Indicator twice a year. This indicator is made up of two measures: the first measure shows the percentage of family and non-family renter households (in the 20 to 44 age group) who can afford to buy a home; the second measure calculates the maximum house price that these households can afford with their average household income. A maximum of 32 percent of income is allocated to cover the total monthly mortgage costs, including principal, interest, property taxes, and heating costs. The maximum price that these first-time buyers can afford also assumes a minimum down payment of 10 percent.

Although, overall, Canadians are well housed, a minority of households are unable to obtain market housing that is suitable, adequate, and affordable without paying more than 30 percent of their income. Such households are said to be in core housing need. (The term does not apply to households living in substandard housing voluntarily.) Approximately 1.16 million, or about one in eight, Canadian households were in core housing need in 1991. When profiled, 73 percent of 850 000 core need households were renters. The average 1990 income of all households in need was $13,100, compared with $49,900 for those not in need. CMHC publishes data on core housing need periodically and is engaged in studies to improve the measurement of need in order to better target housing assistance.

Characteristics of Households in Core Need in Canada, 1991*



* 1 164 000 Households in Core Need

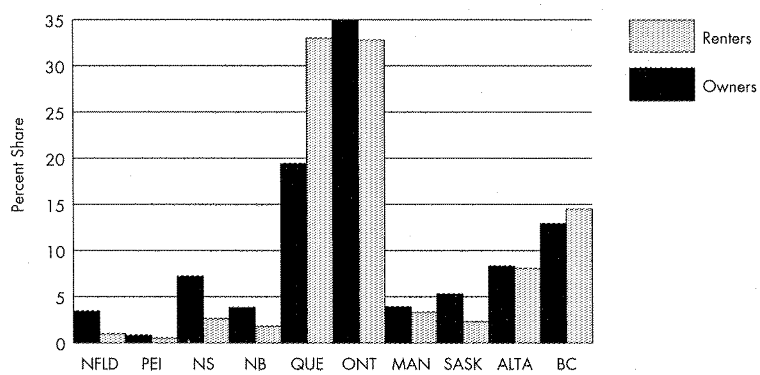
The dominant cause of core housing need in Canada is the lack of affordable housing that meets today's standards. Seventy-one percent of owners and 92 percent of renters in need spent 30 percent or more of total household income (before tax) on shelter. Approximately one fifth of these people now live in substandard housing. The other four fifths occupy adequate housing, but only at the cost of other necessities. These people tend to be seniors, single-parent families, and the working poor.

In the first half of 1992, the percentage of renters who could afford to buy a home improved slightly or remained stable in over two thirds of the Census Metropolitan Areas. There have been local changes, but these are usually attributable to localized conditions, such as a relative surplus or shortage of a particular type of housing. For example, in Vancouver, 20.5 percent of renters could afford to buy a home in the first half of 1992, down from 22 percent in the last half of 1991. In Toronto, the percentage of renters who could afford to buy a home rose to 27.5 percent in the same period, up from 24.4 percent in 1991.

Mortgage rates appear to be the most significant variable affecting affordability in the 1990s. Mortgage rates have declined to an average of 7 percent for a one-year term in 1992, compared with 10.1 percent in 1991. This decline in mortgage rates, coupled with relatively stable house prices, taxes, and heating costs, is promoting increased affordability for Canadians.

Another factor affecting affordability is land supply. Specifically, it is necessary to maintain an adequate supply of land, in both the short and the long term. To help ensure this adequacy, some governments have set out guidelines aiming to maintain a three-year supply of developable lots and a 10-year supply of serviced land.

Interprovincial Distribution of Households in Core Housing Need by Tenure Group, 1991*



*1 164 000 Households in Total

Costs and Incomes for Affordability Indicator*

Census Metropolitan Areas	Average Starter House Price $	Monthly Mortgage Cost $	Annual Taxes $	Annual Heating $	Monthly Total Carrying Cost $	Income Required To Carry Mortgage $
Calgary	110,640	880	1,965	621	1,097	41,090
Edmonton	96,630	769	1,914	546	974	36,510
Halifax	86,880	691	1,524	1,027	904	33,890
Montreal	92,979	740	2,272	1,177	1,027	38,510
Regina	63,060	502	1,715	642	698	28,180
Toronto	163,740	1,303	2,330	631	1,549	58,100
Vancouver	158,660	1,262	1,962	449	1,463	54,870
Winnipeg	68,900	549	2,337	824	812	30,460

* For the Period January-June, 1992

Direct Government Support for Housing

Social housing is the general term applied to housing programs designed for people who are in core housing need. There are also groups with special needs, such as aboriginal peoples, people with disabilities, victims of family violence, and transients who often require social support services along with housing. Both categories are the target for direct government support; however, there is no standard solution to this range of housing needs.

From 1955 to the 1970s, in a variety of arrangements with local and provincial governments, the federal government built, purchased, and operated public housing projects. By 1969, annual approvals of new projects had reached 16 500 units, and this activist role continued through the 1970s, gradually evolving in the mid-1970s into support for not-for-profit and co-operative housing. The federal government also provided support for private rental housing during this period in various ways. Private entrepreneurs received low-interest, high-ratio loans, made available to limited dividend corporations in the 1954-64 period (a program with its origins in the 1930s). Two initiatives were introduced in the mid-1970s: the Assisted Rental program provided annual subsidies to rental apartment developers; and the Multiple Unit Residential Building (MURB) program, a provision of the Income Tax Act, restored the capital cost allowance tax shelter for individual investors in new rental buildings. The removal of the MURB provisions from the Income Tax Act in 1982 resulted in the exodus of most investors from the rental apartment industry.

Federal assistance for the ownership market took two forms. In the early 1970s, the National Housing Act mortgage insurance provisions were liberalized to allow lower down payments. In the mid-1970s, approximately 161 000 single-family and apartment condominiums were subsidized through a program that made ownership more accessible through graduated mortgage payments. Expectations were not always realized, and this program was terminated in 1978 due to the high rate of default. To cushion the adverse affects of the recession of the early 1980s on the housing industry, the federal government introduced a program in mid-1982 that offered $3,000 grants to new home buyers during the one year that it lasted. A total of 176 143 applications were approved under this program. Around the same time, several provinces introduced a program of interest-free loans and mortgage interest rate subsidies to improve affordability and stimulate the home building industry.

Over the past 10 years, there has been a noticeable shift by the federal government away from a direct role in delivering housing programs to policies in which objectives are met through other levels of government, private and not-for-profit groups, and other elements of the private sector. To this end, in 1986 the federal government and most provinces and territories executed social housing agreements that provide for provincial and territorial cost sharing and delivery of federal social housing programs by local governments.

Now, almost all federal support is directed at households who are in core housing need. Through CMHC, the federal government is currently involved in agreements covering 652 741 market and social housing units — approximately 6.6 percent of the nation's housing stock. In 1992, $1.6 billion was provided to assist in the operation of social housing units under administration. Of this amount, annual commitments totalled $920.1 million for not-for-profit and co-operative housing and $751.6 million for subsidies to households still occupying publicly owned rental housing.

Not-for-profit housing programs in Canada have enjoyed remarkable success over the years. These programs provide subsidies for rental units occupied by households in core need. The buildings themselves may be owned privately, publicly, or by not-for-profit co-operatives. There is no equity requirement, and 100 percent of the capital comes from various public and private sources, with loan guarantees from government. Mortgages are offered through the NHA insured-loan program, and construction financing is arranged through a private lender, usually a commercial bank. The federal government transfers funds to the provinces or territories for local administration of the program, which involves subsidies to cover the difference between the economic rent and the amount that a household can afford to pay under the 30 percent provision. In addition to the federal-provincial program, provinces also run targeted housing programs based on their own subsidy programs. In all cases, the construction and financing of these units is undertaken by the private sector.

SECTION TWO:
THE HOUSING MARKET

Dynamics of the Housing Market

The health of a housing market within a region is measured by the supply of housing, both for sale and rent, that can satisfy the housing needs of those looking within that area. The shifting needs and desires of households are met by moving from one market or sub-market to another. These moves may create upward pressure on some markets and downward pressure on others. An overabundance of ownership housing in a city may adversely affect the rental market in that city as renters are attracted by falling prices in the ownership market. Housing markets also tend be compartmentalized into segments characterized by different kinds of housing. An overabundance of expensive homes on the outskirts of a community is of no value to someone seeking an affordable rental unit in the downtown area. This means that housing markets move quite independently of one another, vary from city to city and within cities, may not reflect national trends, and may be affected by different sets of variables. These dynamics help explain why home building has a very local orientation.

A housing market is usually prescribed by demand and supply, and these may not be spatial or geographic. Market performance may be described in terms of how much housing is produced, sold, traded, rented, and otherwise transferred between a builder and purchaser in the case of new housing, or between owners of housing in the case of existing stock. Describing housing markets is very complex. In reality, a housing market consists of groups of sub-markets (such as apartments, condominiums, detached houses, serviced lots) that are related to each other in varying degrees. Of course the housing markets are linked to the market for residential lots and land, and any weakness in this linked system has effects throughout the system. Understanding each sub-market may involve an assessment of the size and number of sub-markets, the linkages between these sub-markets, the available supply within a sub-market, and the types of households that move among these sub- markets.

Compounding this analysis is the fact that neither demand nor supply is static in any single market. With the passage of time, some houses are vacated, others deteriorate, some are demolished, larger units are subdivided into smaller units, others are upgraded through renovations, and new ones are built. Units may shift from rental to owner-occupancy status in the form of a condominium.

Shifts in demand may be created by changes in household formation, income, or preferences. For example, a couple who divorce or separate create two households if they both choose to live independently. A renter whose income increases may decide to move from renting to owning. A couple whose children have left home may decide to move from their large detached house to a more centrally located, smaller unit, such as a condominium. In short, the housing inventory is continually being adapted to the changing requirements of society by a ferment of physical, financial, economic, social, and legal factors.

The purpose of analysing housing markets, or for that matter any market, is to be able to predict and direct change for those who desire to intervene in that market. The potential for change — a shift in price or rent levels, occupancy, or quality or quantity of the stock — in a given residential sub-market arises when the supply of housing increases or decreases relative to demand. Information on the performance of housing markets can be obtained from local market analysts consulting for organizations, who may obtain their information from private surveys as well as from the Census of Canada. The Census is the primary source for demographic information. CMHC is a key source of both local and national market information for industry and government, publishing regular data series by price and time on housing starts, completions, and absorptions, as well as on rental vacancies and mortgage approvals.

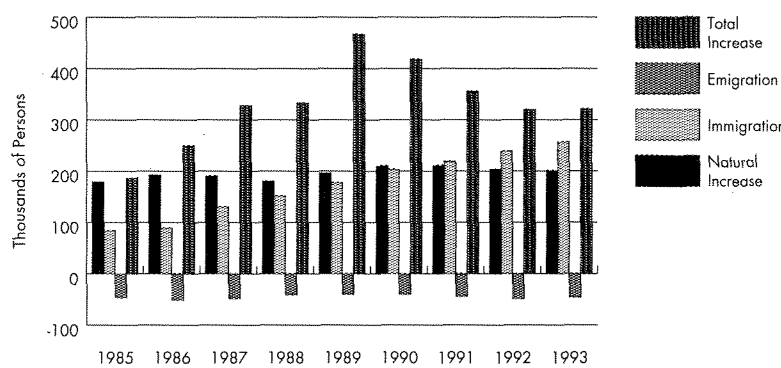
Generating Demand for Housing

The wide swings in annual production give some hint of the complexities that are associated with the demand for housing. For example, total housing starts fell to 125 860 in 1982, rose to 245 986 just five years later (a 95 percent increase), and fell again in 1991 to 156 197. In the short run, these swings may be explained by the economic cycle; but, in the long run, the production of housing is affected by changes in consumer demand, demographic trends, and levels of immigration — in other words, by the rate at which new households are formed, the number of new households entering a community, employment prospects, household incomes, house prices, and mortgage interest rates.

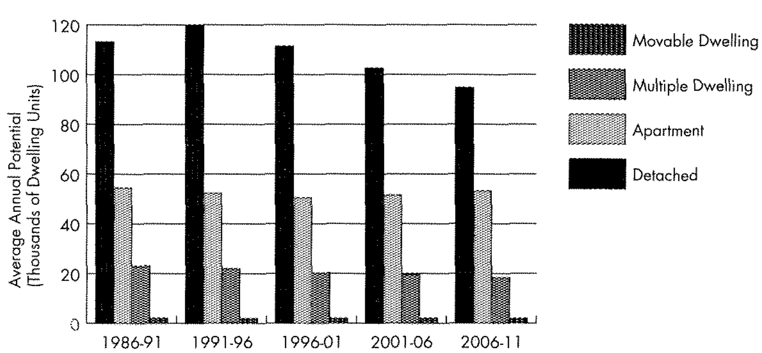
Growth rates in southern Ontario were high throughout the early 1980s, reflecting both a heavy preference of immigrants for the Greater Toronto area and a booming manufacturing economy. British Columbia continued to grow at the fastest rate in Canada throughout the 1980s, and this rate has continued into the 1990s, as a result of natural increase, immigration, and interprovincial migration. While Toronto's housing market in the early 1990s is still experiencing the effects of the current national recession, Vancouver's market has remained buoyant, largely due to the influence of immigration and investment dollars from the Pacific Rim. Housing demand in Atlantic Canada and on the Prairies is driven primarily by natural increases in the population. In Ontario and Quebec, natural increases tend to be overshadowed by immigration from abroad.

Through the remainder of this century and into the next, demographic developments will be the crucial determinants of the level, composition, and location of housing demand in Canada. Immigration will continue to play an important role in the large urban markets when "baby-boom" dominance diminishes as this group moves out of its child-bearing period. National projections show potential housing demand increasing slightly to the mid-1990s (to 195 700 units between 1991 and 1996), levelling off, and then declining to an annual average of 168 300 units in the period 2001-2006. The composition of the demand for the period 1991-2001 is estimated to be 61 percent single-detached units, 24 percent apartments, 11 percent multiple dwellings, and just 1 percent moveable dwellings — not a radical shift from the present situation. Ownership is projected to be 67.8 percent and rentals 32.2 percent of the total housing stock.

Components of Annual Population Growth, Canada, 1985 - 1993



Annual Average Potential Demand by Dwelling Type, Canada, 1986 - 2011



Consumer Preferences in the Market Place

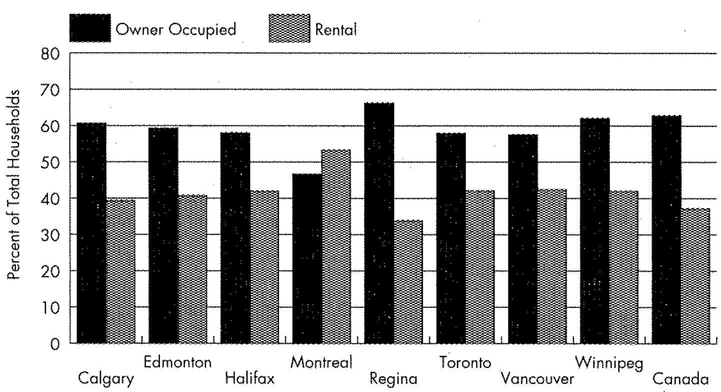
For the majority of Canadians, purchasing or renting a house is a personal decision based on what they can afford, what they think they need, what they want, and what they are willing to trade off to satisfy their shelter requirements.

In considering the tenure choices that Canadians make in the housing market, it is important to distinguish between those who can exercise a preference and those who, by necessity, have limited or no choice. Those with low incomes must rent out of necessity. The preference for owning and ability to own a house clearly rise with income, although there are distinct regional differences. For example, rental tenure is more common in urban regions, particularly in the large central cities.

Profile of Owners and Renters, Canada, 1984

	Owner	Renter
Average Income	$66,150	$19,740
Average Age	49 years	42 years

Tenure for Selected Census Metropolitan Areas, Canada, 1991



The predominant preference of Canadians is for the single-family detached house, a preference that has deep historical roots. Single-family homes have always represented the largest share of Canada's housing stock; approximately 57 percent of all houses in Canada's major metropolitan areas are single-detached. This distinct preference has been very influential in shaping the urban pattern of Canadian cities during the post-war era and in creating what are referred to as the "suburbs."

Households may be divided into three groups according to what motivates the search for a new or different home:

1) **Households that are compelled to move irrespective of what the housing market has to offer.** These people may be motivated by a change in their present circumstances such as arrival in the country, divorce or separation, a change in employment, a death in the family, illness or a disability, or perhaps extreme displeasure with their existing home.
2) **Households that have made a decision to move but only if an acceptable alternative to their present situation can be found.** Like the first group, they are potential buyers or renters regardless of what is available in the marketplace, and they may either launch into a serious search or be rather casual in their approach, depending on what has prompted the action. These are determined but patient customers.
3) **Households that are not contemplating a move but are prompted into action when they see the "home of their dreams."** These people are not necessarily candidates for the housing market, nor are they impulse buyers; they are motivated by what is available. If a particular product does not appeal to them, they may withdraw from the market completely rather than seek an alternative elsewhere.

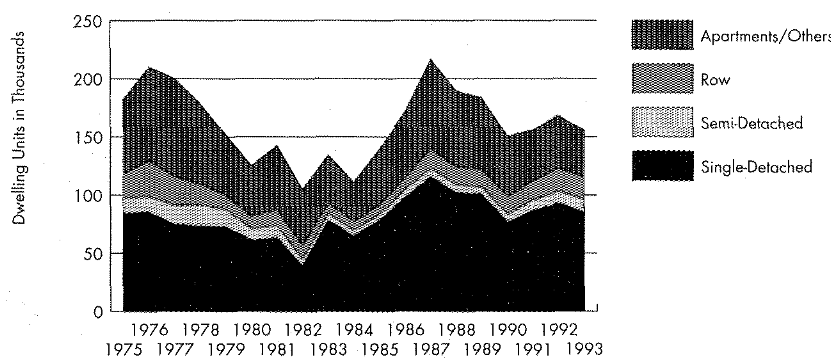
Consumers in all three groups will be channelled into either the existing stock or new construction. In the case of the last two groups, the stiffest competitor is not new construction or even the existing stock, but the homes that they now occupy. The alternatives in the market place must represent a perceived improvement over their present situation, meaning that quality becomes a critical factor in the performance of the market. The extent to which consumer preferences can be satisfied will generally dictate the volume of buyers into the market. The exception is the case of the first group, for whom the cost of housing is often the controlling variable.

Over the five-year period 1987-1992, 52.2 percent of housing completions were single-detached, 4.6 percent semi-detached, 9.6 percent row houses, and 33.6 percent apartments. However, these national figures disguise significant regional variations in the types of houses occupied by people across this country. Low-density single-detached forms predominate in Atlantic Canada, the North, and much of the Prairies. In Ontario, Quebec, and British Columbia, there are proportionally more multiple units, associated with both urbanization and historical patterns of tenure, as well as more urban than rural dwellings. In fact, in 1992, 75.6 percent of all apartments were built in metropolitan areas; 91.2 percent were in centres with a population of over 10 000; and 41.8 percent were built in the three largest metropolitan centres — Vancouver, Toronto, and Montreal.

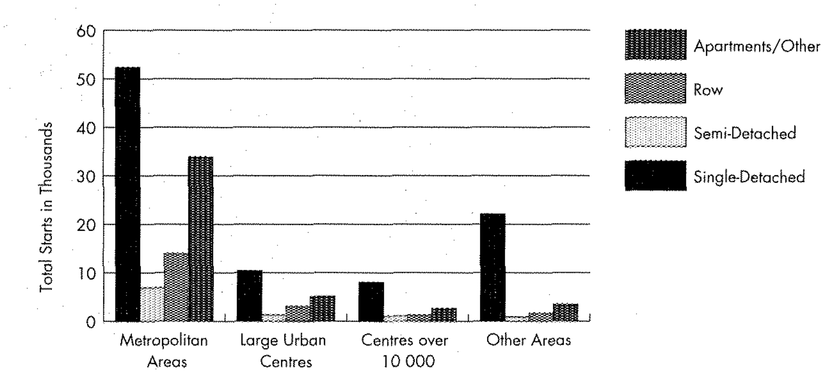
In a relatively stable market, preferences may be expressed for a certain neighbourhood, for a particular style or size of house, or for certain features within the house. Preferences will also be expressed for houses in a certain price range; however, the characteristics or qualities of the house itself often dominate. This is particularly true in Atlantic Canada and Quebec. In Ontario, price, location, and length of journey to work tend to receive about equal weight in choice of house. Size and interior layout rank high in most regions of the country except in Ontario, where the sizes of the lot and yard are ranked higher. Significant regional differences exist as to what size of house is preferred. Consumers in British Columbia and Ontario, for example, have preferences for much larger homes than consumers on the Prairies. Those in Eastern Canada and British Columbia prefer a two-storey house, while bungalows are the preference on the Prairies.

One sector of the housing market that has taken on increasing importance is that of accessory rental apartments. These are independent living spaces in primary housing units that may share a yard, a parking space, or even an entry with the host dwelling. Although they are often illegal under local regulations, they do provide rental accommodation at the low end of the market and supplement the income of the home owner. In this way, they can be viewed as

Dwelling Starts by Type, Canada, 1975 - 1993



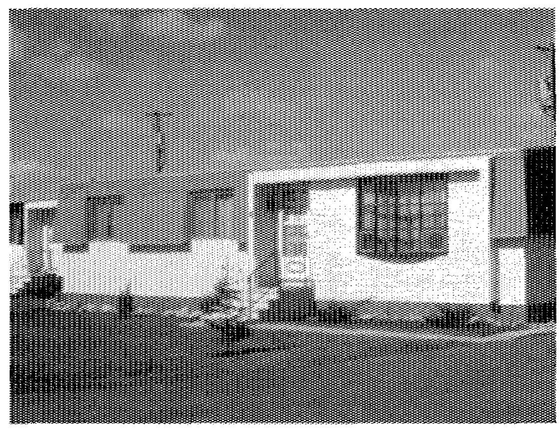
Dwelling Starts by Type, Canada, 1992



enhancing housing affordability for both renters and owners, as well as providing a more efficient use of land. Recent surveys in Toronto and Vancouver indicate that 10 to 20 percent of single-detached dwellings contain accessory apartments. Nationally, it is estimated that from 5 to 10 percent of the total housing stock contain accessory apartments.

High-rise buildings account for a very small proportion of multiple-housing forms in Canada and are found primarily in the largest metropolitan areas. The production of townhouses, duplexes, semi-detached houses, and three-storey walk-up apartments using light frame wood construction has always exceeded the construction of mid- to high-rise apartments using non-combustible construction (poured-in-place concrete) — a reflection of consumer preferences. With the exception of high-rise housing, the qualities of the single-detached house have been a benchmark even for multiple housing, whether for ownership or rental, because of Canadians' preference for the single-detached house. To this end, builders of low-rise multiple dwellings attempt, whenever possible, to provide ground-related living, preferably with a door at street level, ready access to the automobile, enclosed private outdoor space for recreation and play, visual privacy, and a clear demarcation between privately and publicly maintained areas within the housing complex.

The mobile home became a popular form of housing in the late 1960s and early 1970s, along with other factory-built housing, and accounted



for more than 15 percent of total single-family starts in the five-year period 1971-1975. In fact, starts rose to a 21 percent share in 1974. Since that date the trend has reversed for a number of reasons, including significant local resistance to mobile home developments. Today, other than for special needs, such as temporary shelter or housing at industrial sites, resource towns, and remote settlements, mobile homes are not a popular form of housing.

In today's ownership market, many Canadians have the desire and ability to match their lifestyle preferences with a particular product, within the limits of their financial resources. Builders now create products in numerous versions to increase market appeal. Differences may include reconfiguring the architectural character of the front facade, adding details to a particular room, designing a unique kitchen layout, or adding a fireplace to the master bedroom suite. All of this is neither purely for functional reasons nor to cater to personal comfort. It is a means of allowing households to express a certain "personal identity." Such expression is very much a part of the economic and cultural enterprise of home building today.

There are always constraints on the ability to satisfy consumer preferences, including price constraints in the case of people with low incomes. Households must therefore make choices that involve trade-offs. These trade-offs may include, for example, the choice between an extra bedroom and a formal dining room, or between an additional 10 square metres of living area and a larger yard. It is the skill in balancing these trade-offs that often keeps the builder competitive. If a purchaser can afford only one option, what will it be — an energy-saving feature, a larger yard, a garage, or a fireplace?

In short, demand is prescribed not only by data such as population projections and price curves, but also by qualitative criteria and what might appear to be the idiosyncratic behaviour of particular consumer groups. It is only with this kind of information that it is possible to link demand to supply in the marketplace and to determine the different levels of housing activity, within different price ranges, in different locations. It is with this information that one can begin to distinguish the extent to which the market will flow to new construction versus the existing stock.

Existing Stock versus New Stock

Canadians have maintained a very high quality in the homes they occupy, and this quality has improved with time. Quality is improved in three ways. First, a small amount of demolition each year usually removes substandard housing. Of the 243 803 unoccupied dwellings in 1991 (2.4 percent of the total stock), some were deemed unfit for habitation and therefore became candidates for demolition. Second, improvement and possible expansion of the existing stock is made through renovation and conversion. Finally, a small number of houses are added each year to the existing stock through new construction. In the overall housing market, it is the existing stock that dominates; the annual additions to and subtractions from the total housing inventory represent an extremely small proportion of the stock itself. In 1992, the existing stock was approximately 10.7 million units, in comparison with just over 168 000 new units. Assuming that demolitions were negligible, the stock expanded by a mere 1.6 percent.

It is only in the last two decades that Canadians have come to realize fully that it is the use, re-use, and continual alteration and exchange of existing capital assets that is the foundation of the Canadian housing system. It is the owners of the existing stock, those people who make decisions about maintenance and renovation, who govern the adequacy of the housing supply. The home builder, in making decisions about new construction in response to perceived demand, adds incrementally to this supply. It is unfortunate that we still do not know as much about the process that affects improvements in our existing stock as we do about the process of new construction. Gaining insight into this sector is one of the frontiers within our own housing industry today.

It would be misleading to relegate the importance of new construction to only that proportion that it adds to the standing stock each year. New home sales represent a significant share of the total transactions that occur each year. In 1992 there were 326 722 residential sales by Canadian realtors who made use of the MLS® system.[1] Total completion of new homes in 1992 was 160 014, of which 15 086 were privately initiated rental apartment completions and 19 523 units were part of the government-sponsored social housing programs. This still leaves 125 405 new units for private sale, or 41.7 percent of total MLS® sales in 1991.

Existing owners often find, upon surveying the new-home market, that they can achieve higher status and more satisfaction by applying new ideas to an existing home through modernizing a

[1]MLS (Multiple Listing Service) is a copyright of the Canadian Real Estate Association. This is the system by which member firms share information about houses that they have each listed for sale and under which they can sell one another's listed houses, sharing the commission under an agreed-upon formula.

kitchen or bathroom, adding a new patio, or making some other visible addition to the house. Even the advertising of new homes can prompt ideas for improving an existing home as an alternative to a new home. Existing homes provide two distinct advantages over new homes in the housing market. First, most improvements that appear in new homes can now be built into existing homes at reasonable cost and, second, new homes are often restricted to fringe or suburban locations that may not enjoy the same ambience that older neighbourhoods do.

The high cost of serviced land and other constraints, such as rent controls, rising construction costs, and the regulatory climate, also limit new construction and lead to an increased reliance on the existing stock. For example, over the past decade, new construction has not adequately kept pace with the need for rental stock due to investor caution where rent controls are in place. Fortunately, the existing stock can satisfy housing demands for a very broad segment of a given market or sub-market. More and more, Canadians have come to depend on the existing stock for their rental needs, particularly for affordable housing.

Exchange of Properties in the Marketplace

An individual with a home to sell, or in search of a home to buy, must decide how much a particular dwelling is worth. While economists may debate the meaning of value and social scientists may debate the value of the community, the buyer or the seller must place a price on a particular house. This price must serve the interests of several people, including the buyer and the seller, perhaps an investor in the case of rental property, and certainly the mortgage banker. This price is set in the market, not through any arbitrary formula. In Canada, it is the brokerage function that provides the orderly exchange of houses and contributes to the efficiency of the housing market.

Nearly 50 percent of Canadian households move every five years, a rate of mobility that has remained stable over the past decade. About 60 percent of all households that moved during the 1980s reported having rented (and renters move twice as often as home owners). Newly formed households constituted 9 to 10 percent of all movers in the 1980s. More than half of those who moved into ownership units had been owners before, revealing that they were not first-time buyers. This mobility promotes an annual turnover of approximately 20 percent of the total housing stock, and this figure gives some indication of the need for housing services to facilitate changes in occupancy or tenure among households.

Most Canadian home owners seeking to change residences do so using the services of a broker or real-estate agent. It can be assumed that households transact so infrequently that they have very limited knowledge of available properties, prices, advertising and selling techniques, negotiation strategies, written and legal agreements, and other considerations that may affect their understanding of the housing market. Purchasing expertise in each area would be impractical and costly, and this applies to the small builder as well as the home owner. Only a large operation could afford the type of in-house expertise required to carry out all of these functions. A minority of transactions (approximately 7 percent) do proceed through "sale-by-owner" methods, but these require extraordinary diligence and knowledge of the many aspects of the transaction on the part of both buyer and seller. The drawback of such methods is that the needs of both buyer and seller may be difficult to satisfy if unacceptably high bid-ask price spreads result from inadequate market information.

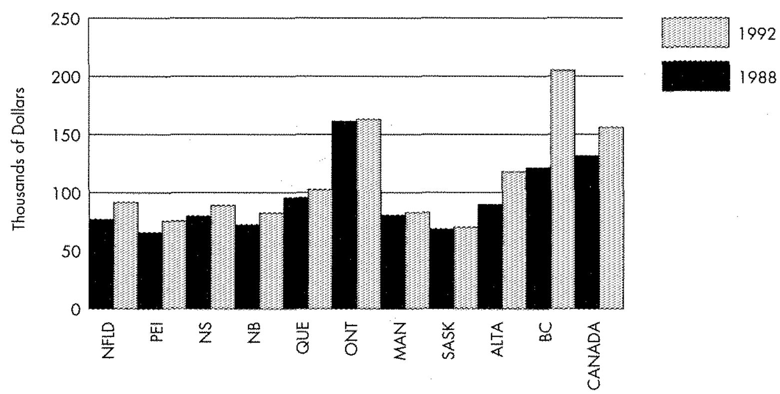
Consequently, more than 90 percent of residential sales in Canada involve brokers. Residential brokerage transactions increasingly take the form of "co-operative" or MLS® listings and sales; roughly 88 percent are co-operative listings in normal markets, but the figure varies between 70 and 90 percent. The seller will typically pay a commission equivalent to 5 or 6 percent of the selling price. There is no fee for the purchaser. Sellers who use a broker appear to receive a higher price than those who do not use brokers, perhaps 3 percent more, albeit a lower price net of commission. Through a broker, the buyer arguably receives a "better" match in return for the slightly higher price.

In 1992, there were 326 722 MLS® sales of existing houses in Canada, at an average resale price of $150,999. Ontario accounted for 40.1 percent of MLS® sales, with an average resale price of $162,827 (6.3 percent lower than the previous year); British Columbia had 28.5 percent of MLS® sales, with an average resale price of $190,334 (up 13.1 percent from the previous year); and Quebec had 9.7 percent of MLS® sales, with an average resale price of $102,549 (down 0.3 percent from the previous year).

Brokerage is a highly cyclical business, with a great deal of volatility within the sales force. A number of difficulties encumber attempts to measure the levels and trends of labour productivity in this sector, such as the variations in full-time and part-time employment and the dramatic swings in sales from year to year. It is estimated that in 1986 the equivalent of 51 000 individuals were actively engaged full-time in residential brokerage, with average sales of seven houses per year. In 1991, transfer costs totalled $10.6 billion dollars (equivalent to 35.6 percent of construction expenditures for new construction and major alterations and improvements) and included brokerage fees, professional and legal fees, transfer taxes, and other disbursements incurred in exchanging property.

Brokerage is not as prevalent in the rental sector, and rental has not developed into a large fee business in Canada. Private owners of rental accommodation, including landlords of accessory apartments, tend to deal directly with prospective tenants and rely upon a standard lease agreement that can be purchased at local office supply stores. Lease terms are usually one year, with the requirement of a damage deposit and payment of monthly rent in advance. The rental market in several of Canada's large urban centres, including Toronto and Montreal, is highly regulated through rent control, and these regulations restrict rent levels as well as the annual increases that can be imposed. Most jurisdictions in Canada also enforce regulations that protect occupancy rights, including restrictions that preclude discrimination by landlords in selecting tenants.

Average Residential Selling Price, MLS® Activity, Canada, 1988 - 1992



Most small landlords manage their own buildings, and this management includes attracting tenants, primarily through newspaper advertising. Large rental property owners usually acquire their own property management services and also rely on direct newspaper advertising. Some landlords may retain the services of a property management company, but this is usually in circumstances in which investors are not primarily in the real estate business. The one area in which residential property management services has grown is in the management of condominium property. Condominiums are run by owner-elected boards that assess fees, retain a property management company to operate common areas and facilities in the building, and handle the rental of any units that are not owner-occupied. Often these companies are affiliates of the original development firm, making this activity a lucrative fee business for condominium developers.

Price versus Cost of Housing

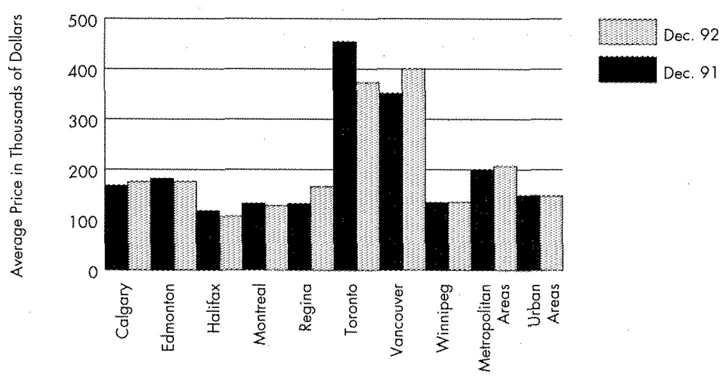
The price of housing is central to the examination of any housing market, yet the method of setting prices is difficult to analyse. Price is what brings together demand and supply, and economists spend a great deal of time trying to predict just where the intersection may occur. Forecasts reflect assumptions on the various complexities of the market. In the short run, the market response to an increase in demand is an increase in price. Over time, rising prices encourage new supply, including new stock, as well as improvements to the existing stock. Price rises in new housing will shift some demand into the rental market, and investment in rental accommodation will increase. However, when net increases in supply exceed household formation, vacancies increase and rents decline, as do prices in the existing stock. New construction is not as prone to downward pressures since costs are controlled by more rigid wage and price structures. As a result, the number of new housing starts drops off sufficiently to maintain but not widen the price or rent gap between the new and the existing supply. All of this adjustment is a relatively slow process, and it can take many years for the market to adjust fully to shifts in demand or supply.

Measurements of price usually focus on trends or relative rates of change in the price of housing. Devising a consistent means by which prices can be analysed is still a difficult conceptual challenge for the housing industry, as well as for housing economists. For example, in both the owner-occupied market and the rental market, it is difficult to determine with any degree of certainty to what extent increments in rent or value are associated with or stem from improvements in quality as opposed to a relative increase in demand over supply. The same applies to declining rents and house values. The problems of measurement are further exacerbated by complications arising from the inherent heterogeneity of the owner-occupied and rental housing stock.

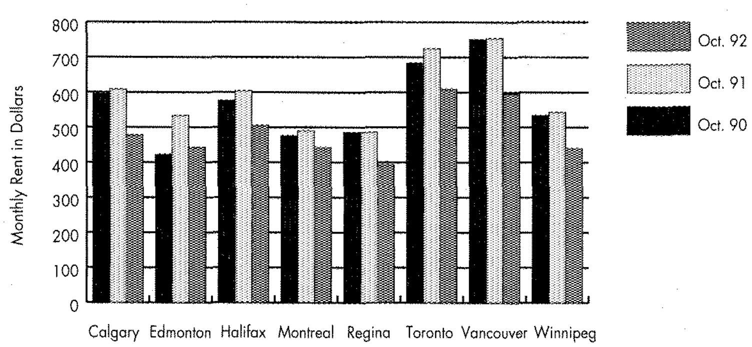
When dealing with housing price, it is the local price that matters. There is no solace for the purchaser in Vancouver to know that the average selling price for a new house was $175,326 in Calgary or $128,082 in Montreal in December 1992 when it cost $400,481 for a new house in Vancouver. The same applies to rents. The average rent for a two-bedroom apartment in Vancouver in October 1992 was $771 per month, compared with Calgary at $607 and Montreal at $499 per month.

One source of information about house prices is the series "New House Price," which is pub-

Average Unit Selling Price of Newly Completed Single-Detached Units for Selected Cities, Canada, 1991 - 1992



Average Rent of Privately Initiated Apartment Structures of Six or More Two-bedroom Units, Canada, 1990 - 1992

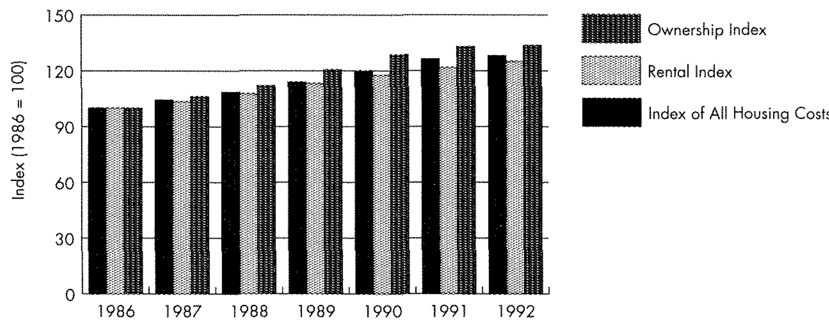


lished in the form of an index by Statistics Canada. This index of new house prices provides an indication of the extent to which consumers can access new housing stock to satisfy housing demand. The national New House Price index fell 6.8 percent in 1991 after recording increases of 1.4 percent in 1990 and 13.2 percent in 1989. This was the first time since 1983 that this index had posted an annual decline. This drop can be attributed to drops in both the cost of land and the cost of constructing houses. The index for new house prices in Toronto fell by 14.9 percent and in Vancouver by 7.3 percent in 1991. This downward trend in the early 1990s follows almost two decades during which the price indices for owned and rented accommodation experienced considerable increases. Increases in rental accommodation approximately matched inflation through much of the 1980s, but increases in the owner-occupied stock rose faster than inflation in the comparable period.

The transaction price, whether through a purchase or a rental agreement, is just one component contributing to the actual cost of housing. The cost to the consumer may be thought of as the user cost for housing services. This may include the opportunity cost foregone by the consumer in investing the equity in a home, the cost of the mortgage, associated out-of-pocket costs such as property taxes, and depreciation minus any capital gains from owning the house. Of course, this does not recognize any tax advantages, such as the non-taxation of capital gains when the house is sold. Canada offers no direct tax advantages to the home owner or the renter other than relief from capital gains at time of sale on the primary residence and some provincial programs, which provide tax relief for low-income rental households.

A standard measure of price to the consumer in Canada is the Consumer Price Index (CPI), including rent and ownership components. However, the CPI ignores capital gains and the opportunity cost of equity. The rental and owner-occupied shelter components of the Consumer Price Index recorded small increases in 1992. The cost of rental accommodation increased by 2.7 percent, while that of owner accommodation posted a small 0.5 percent advance. The prime

Consumer Price Indexes, Rental and Ownership Compared With the Total Index of Housing Costs, Canada, 1986 - 1992



reason for the small increase in the shelter component of owner costs in 1992 can be attributed to a 3.6 percent reduction in mortgage interest costs that offset increases in property taxes and utilities.

This situation has changed in many parts of Canada in the 1990s; in some provinces, housing values have actually declined. For example, the average residential price in Ontario has declined by 12.8 percent from the 1989 peak. (Prices jumped by 18.9 percent in 1988 and 14.5 percent in 1989.) In contrast, average prices in British Columbia are still on the rise and have increased by a total of 57.0 percent over the past five years. Price increases and declines tend to exaggerate market preferences. Some households react to rising prices by moving into a larger house that they think may appreciate more rapidly (they increase their consumption). Others may see price volatility as grounds for caution in acquiring more debt. Price declines, such as have occurred in Ontario, have made purchasers wary of the security of their investment, and this becomes a primary consideration in making any home purchase.

Volatility of New Housing Production

During the first 25 years of the post-war era, new housing construction tended to be counter-cyclical, moving in the opposite direction of the economy at large. This was an era when governments set interest rates and concentrated on credit programs to promote new housing starts as a way of stimulating a sluggish economy. Over the past 15 years, the pattern has reversed. Starts and completions reflect economic swings now that mortgage markets are integrated with overall capital markets and are subject to the same forces that affect other sectors of the economy.

A pattern to this volatility can now be seen. Employment increases as an economy improves, and interest rates remain low while disposable household income begins to increase. The result is rising housing demand. The upward climb in the economy begins to bid up house prices in some markets. The industry responds with new starts, prompted by a healthy demand, strong prices, and access to capital. Builders are encouraged by the prospect of reasonable profit margins. Interest rates begin to rise as the monetary policy responds to inflationary pressures. Rising house prices and the rising cost of debt begin to make housing less affordable, and this lack of affordability, in turn, begins to dampen demand. Builders retreat and housing starts decline. The cycle moves into a downturn, marked by declining employment and falling demand. A decline in completions usually lags as builders complete units they have already started. Increases in supply mean increased choice and a moderation in prices. If a recession follows, interest rates decline, prices stabilize, and builders turn their attention to disposing of current inventory. More households find that they can move back into the market, and the supply diminishes. A recovery begins and the cycle continues.

It is interesting to note that much less volatility occurs with renovation spending and that this volatility has diminished since the mid-1970s. A significant component of these expenditures consists of inexpensive improvements by home owners that do not seem to be sensitive to economic conditions. Also, during times of high interest rates and economic uncertainty, some owners will opt to renovate rather than buy a new home.

SECTION THREE:

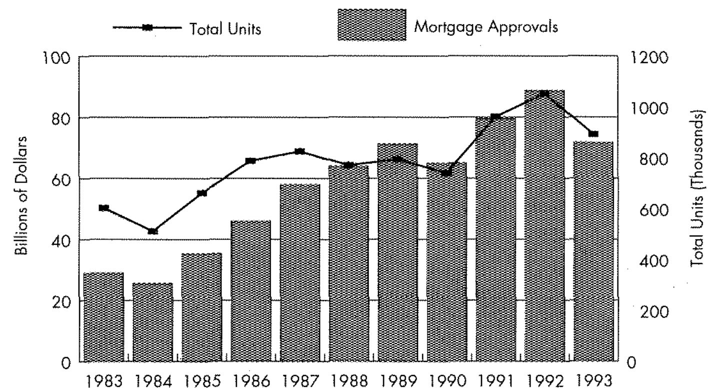
HOUSING FINANCE

Credit — Lifeblood of the Industry

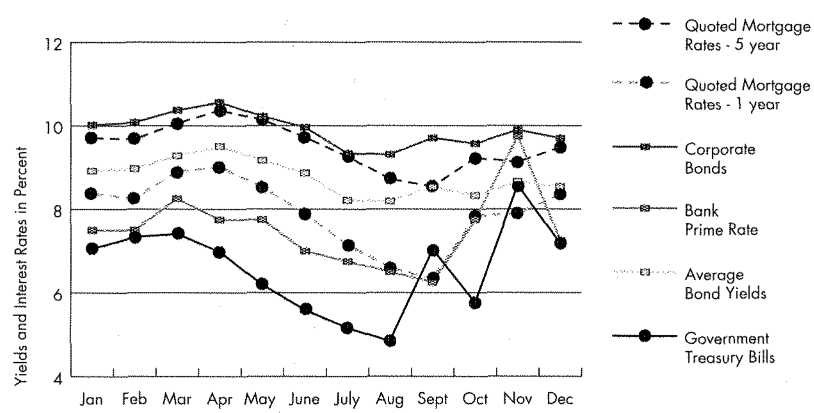
Credit makes and shapes the market for housing. The efficient functioning of housing markets depends upon an adequate but properly controlled flow of funds, whether to the developer for assembling land to provide serviced building lots, to the home builder for purchase of a lot and construction of the house, or to the prospective purchaser of a new or an existing house for a mortgage. Funds are also required by the investor who is purchasing a rental property or by an owner making improvements or additions to an existing structure. It is the cost of this credit that links the performance of the housing sector to broad economic cycles and affects both the consumers and producers of housing.

The housing sector in Canada requires substantial capital flows each year to sustain housing activity. In 1992, residential construction expenditures totalled over $45 billion, of which all but $24 million was private expenditures. But construction expenditures alone do not portray the full extent of the demand for capital in the residential sector. Also in 1992, residential mortgage approvals totalled $83.3 billion (an 18.8 percent increase over the previous year), of which $71.7 billion was on existing properties and $11.6 billion was for new properties. Outstanding mortgage credit in 1992 was $296.8 billion. This compares with $489.7 billion in business credit (July 1992) and $373.6 billion in household credit (June 1992). Residential mortgages represent 6.9 percent of the total asset base of the lending institutions, including life companies, chartered banks, trust companies, and credit unions.

Residential Mortgage Approvals, Canada, 1983 - 1993



Bond Yields and Mortgage Interest Rates, Canada, 1992



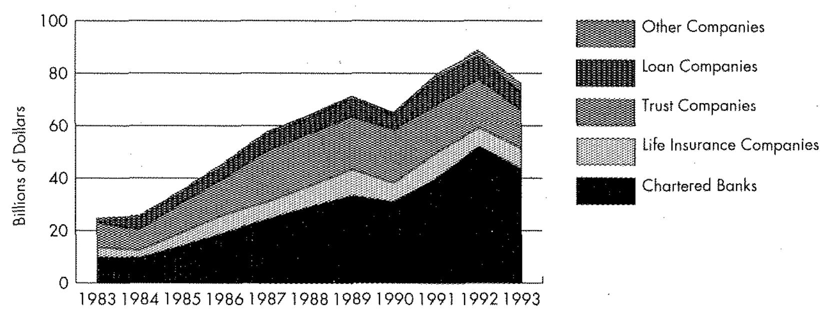
Residential Mortgage Market

The purchase of a residential property is financed through a combination of mortgage loans and equity. The availability and terms of mortgage financing have a major effect on housing affordability, and changes in interest rates for mortgages reflect changes in overall interest rates. Residential mortgage markets are sensitive to many factors, including expectations of inflation among investors, strength of the economy, demand for and supply of capital, fiscal policies of government, and policies of the Bank of Canada. Although mortgage and overall interest rates generally move in the same direction, the spread between rates paid by home buyers and rates paid by governments and corporate borrowers may fluctuate. The spread between mortgage interest rates and rates on government issues such as treasury securities of comparable maturity changes mainly in reaction to shifts in the supply of mortgage funds and investors' perception of credit risk.

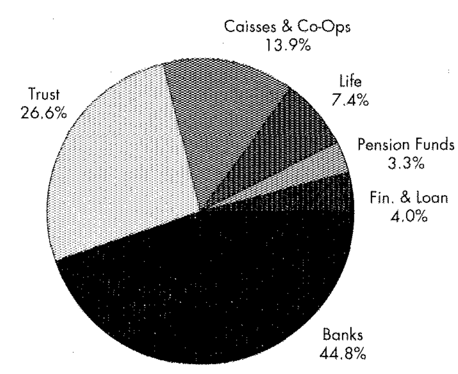
The role of the federal government has been to use its regulatory powers to instill stability and confidence in mortgage lending, to expand the sources of capital for housing finance, and to create a secondary market to maintain the competitiveness of the mortgage markets with other asset classes. Regulation has been used to promote the widespread use of standardized mortgage documents and private mortgage insurance and the creation of securities that would appeal to investors previously outside the mortgage market. The result is a mortgage market attractive to both large and small operators, in which uniformly high underwriting standards are maintained.

The most recent initiative of the government has been the introduction of mortgage-backed securities (MBS) to encourage greater liquidity into the mortgage market and thereby increase the competitiveness of mortgage instruments with other asset classes in the capital markets. These actions have always been consistent with the government's intention to provide minimal intervention in direct lending or in offering any lending subsidies to facilitate private borrowing. Even private loan insurance now exists as an alternative to the government's own program. The results over the years have been borne out by a residential mortgage market that has efficiently allocated resources to the benefit of lenders, borrowers, and the economy as a whole.

NHA and Conventional Mortgage Loans Approved by Lending Institutions by Type of Lender, Canada, 1983 - 1993



Market Share of Residential Mortgage Credit, Canada, 1992*



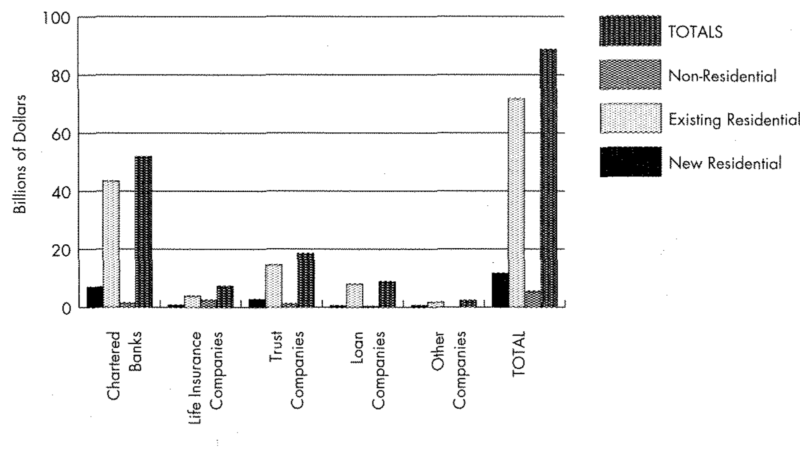
* Percentage of Total Dollars Loaned

Sources of Mortgage Lending

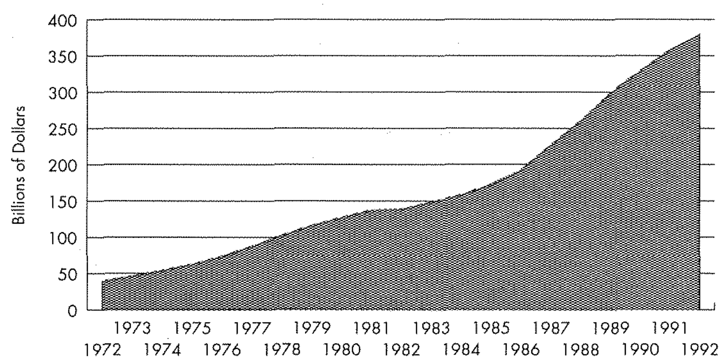
The value of mortgage lending approvals has continued to increase at substantial rates; it expanded by 25.1 percent in 1991 and by 18.9 percent in 1992. In 1992, four private lending groups held 82.9 percent of all mortgage loans outstanding: chartered banks 34.6 percent; trust companies 23.1 percent; life companies 13.8 percent; and credit unions 11.4 percent. The remaining 17.1 percent was held by other companies, governments, pension funds, and estates and trusts. There continues to be strong competition among lenders to attract mortgage business and a growing interest in holding securities in the form of NHA mortgage-backed securities.

In 1986, the National Housing Act was amended to allow CMHC to issue modified mortgage pass-throughs as a way of developing a viable secondary mortgage market. Private issues of MBS actually preceded the first government-backed issue in 1987; however, since 1987, private MBS have represented not more than one percent of total amounts issued. The NHA MBS program offers several types of mortgage pools: single-family, multiple family, social housing, and mixed. All mortgages must be NHA-insured against default. For 1992, 388 NHA MBS totalling $5.96 billion were issued, compared with 292 new issues totalling $3.19 billion the year before. The outstanding amount of all NHA MBS issues stood at $11.95 billion at the end of 1992.

NHA and Conventional Mortgage Loans Approved by Lending Institutions by Type of Lender, Canada, 1992



Total Mortgage Loans Outstanding, Canada, 1972 - 1992

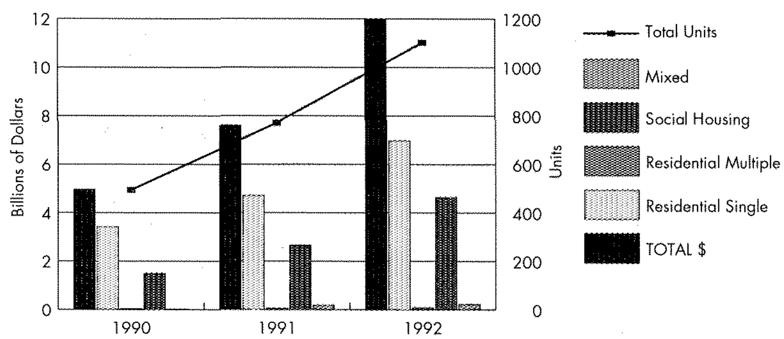


Financing Home Purchases

Canadians purchase homes through a combination of equity and debt. The equity generally takes the form of personal savings, equity accumulated in a residence that they are selling, funds accumulated in a Registered Retirement Savings Plan (RRSP — a tax-sheltered savings plan for retirement), loans from a family member or friend, or a non-mortgage loan. In fact, a great many Canadians own their home without a mortgage, and some of them have enjoyed the transfer of housing from generation to generation, tax free. In 1989, 32 percent of Canadian households owned a home with no debt, but there are significant regional variations in this figure. Debt-free ownership is prevalent in Atlantic Canada (45.1 percent), but this amount drops to 31.9 percent in Ontario and 25.7 percent in Quebec.

The prospective home purchaser encounters two major hurdles, either of which may restrict the ability to satisfy housing needs. The first is the equity requirement. Banks, trust companies, credit unions, and other mortgage lenders will provide what are known as "conventional" mortgages of up to 75 percent of the value of the property if the prospective buyer can provide 25

NHA Mortgage-Backed Securities, Outstanding Amount (End of Period), Canada, 1990 - 1992



percent (plus all of the fees, disbursements, and taxes associated with the transaction — the closing costs). High-ratio mortgages, of up to 95 percent of the property value, can be obtained if the borrower also purchases mortgage insurance. The second hurdle is sufficient qualifying income to be approved for a mortgage. A household must have sufficient annual income to meet the monthly debt, equity, tax, and heating costs to qualify for a mortgage.

The federal government recently lowered the equity barrier through two mortgage provisions. In 1992, CMHC introduced First Home Loan Insurance, which allowed loan-to-value ratios of up to 95 percent for first-time buyers; more than 63 000 loans were made under this program in its first year. In addition, the Minister of Finance allowed tax-free withdrawals, up to a maximum of $20,000 per individual, from an RRSP; however, these funds must be replaced in the future. In 1992, 130 000 withdrawals were made under this home-buyers' plan.

In Canada, a variety of housing types, new construction, and existing buildings as well as various forms of tenure, are eligible to be mortgaged. The lender has the option of using mortgage insurance from either CMHC or a private insurer. The borrower may be an investor, and the units may be new or existing single-detached, semi-detached, row or apartment units and may be for freehold, leasehold, or condominium tenure intended for rental. Second mortgages are also available to assist in the purchase of, or in renovations to improve, an existing unit. Special qualifications apply under CMHC's First Home Loan Insurance Program. The table on the next page summarizes CMHC's mortgage loan programs, which tend to reflect industry standards. GDS refers to Gross Debt Service, including principal, interest, taxes, heat, and 50 percent of the condominium fee, if applicable. TDS refers to Total Debt Service, including all forms of household debt. In the case of second mortgages, the insurance premium (the right-hand column in the chart) is either the lesser of a percentage of the first and second combined or a higher rate applied only to the second mortgage.

One form of mortgage that is not reflected in this chart is a mortgage offered to a purchaser through a private arrangement with the vendor, usually referred to as a "vendor-take-back." This is usually a second mortgage offered for a short period of time, perhaps one or two years, and it may be structured to repay principal and interest in one lump sum at the expiry date. This form of loan may facilitate a transaction in a situation in which the prospective purchaser does not have sufficient equity.

In Canada, mortgages may be amortized over periods of between 15 and 40 years, with a 25-year period being the norm. Interest is calculated semi-annually and paid monthly, along with the principal and an amount for property taxes. The actual term of the loan usually varies from six months to five years, after which the conditions of the loan are renegotiable. At the time of a sale, a mortgage may be transferred to the purchaser, with the approval of the lender. The longer the term of the loan, the higher the interest rate. This reflects the lender's perception of the long-term risk in committing to a fixed rate. After a long absence dating back to the early 1970s, terms of up to 10 years, with a fixed interest rate, are beginning to reappear in Canada. This return can be attributed, in some measure, to the very low rate of inflation that has been maintained by the Bank of Canada in recent years.

Obviously, the interest rate is a significant factor in determining the amount of debt that a household can acquire. In 1992, mortgage interest rates fell to a low of 6.5 percent for a one-year term and to 8.71 percent for a five-year term. The lowest rates for the previous year were 8.92 percent and 10.18 percent, respectively. As an example of the effect of a change in the interest rate, at a 9.5 percent rate, 25 percent of first-time home buyers in Vancouver would qualify for a maximum affordable price of $153,340; the comparable figures for Montreal are 60 percent of first-time buyers qualifying for a $134,090 price. A rise of one percent in the mortgage rate to 10.5 percent lowers the percentage of buyers qualifying to 15 percent in Vancouver and 56 percent in Montreal. This example assumes a 10-percent down payment and a 25-year amortization period.

Financing Home Renovations and Improvements

Expenditures on construction for major alterations and improvements 28totalled $13.3 billion in 1992, compared with $16.9 billion spent on new construction. However, much less is known about how this work is financed than about financing for new residential construction. Data in the renovation sector are difficult to track due to the nature of the activity, the diffusion of expenditures among current owners, and the extent to

Type of Loan	Qualifying Income	Loan Amount	Loan to Value Ratio	Insurance Premiums (%)[1]
Home Ownership Existing Buildings and New Construction (1 to 4 units)	• GDS up to 32% for principal, interest, taxes, heat • TDS of up to 42% for buildings with 1 - 4 units	90% of the first $180,000 80% of the balance Minimum 10% equity	Up to 65% Up to 75% Up to 80% Up to 85% Up to 90%	0.5 0.75 1.25 2.0 2.5
Rental Buildings Existing and New (one or more units)	Financial statements and credit rating	85% of purchase price or market value, whichever is less	Up to 75% Up to 80% Up to 85%	1.5 [2] 1.75 [2] 2.0[2]
Investor Units New (one or more units)	TDS not to exceed 40% of gross income	85% of sale price or market value, whichever is less	Up to 75% Up to 80% Up to 85%	2.0 2.25 2.5
Investor Units Existing (one or more units)	TDS not to exceed 40% of gross income	85% of sale price or market value, whichever is less	Up to 75% Up to 80% Up to 85%	1.5 1.75 2.0
Condominium New (one or more units)	GDS up to 32% (incl. 50% of condo fee)	90% of the first $180,000 80% of balance Minimum 10% equity	Up to 65% Up to 75% Up to 80% Up to 85% Up to 90%	0.5 0.75 1.25 2.0 2.5
Second Mortgage	Similar to Home Ownership	first and second not to exceed 90% of the first $180,000 of lending value and 80% of remainder	Up to 65% Up to 75% Up to 80% Up to 85% Up to 90%	0.5 0.75 1.25 2.0 2.5
First Home Program	GDS up to 35% (incl. 50% of condo fee)	Maximum price set for various cities and regions (e.g., Toronto, Vancouver $250,000)	Up to 95%	2.5

[1] Premiums shown only apply for single advances. For loans involving multiple advances, premiums are 0.5% higher
[2] Premiums shown are for existing buildings. For new buildings, premiums are 0.5% higher
For current details concerning mortgage insurance, contact CMHC

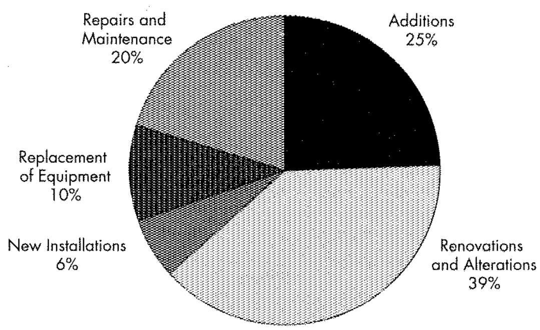
which the "underground" economy participates in this work. It is estimated that as much as 50 percent of expenditures on home renovations in Canada today is dealt with through the "underground" economy.

Home owners are the cornerstone of the renovation market. Approximately 75 percent of home owners (6 285 840 home-owner households) spent money on repairs and renovations according to a 1991 survey, and these expenditures covered a broad range of activities. The $12.8 billion spent by home owners on their houses can be broken down into five major categories: 38.7 percent ($4.9 billion) on alterations; 24.7 percent ($3.2 billion) on structural additions; 20.1 percent ($2.6 billion) on repairs and maintenance; 10.1 percent ($1.3 billion) on replacement of equipment; and 6.4 percent ($0.8 billion) on new installations.

The four most popular types of renovations (representing nearly $5 billion in expenditures) range from exterior renovation to renovations affecting both the interior and exterior of the house; these involved about 30 percent of these households, with average expenditures between $2,382 and $5,891. The next most popular type involved 42 percent of households, who spent a total of $717 million, or $272 each, doing interior and exterior painting, with average expenditures between $762 and $1,422. The remaining categories are characterized by low-frequency and low-average expenditures. Not surprisingly, the wealthiest households spent the most money and the most frequently on renovations. Home owners who recently moved were the biggest spenders and usually undertook larger projects in their new residences.

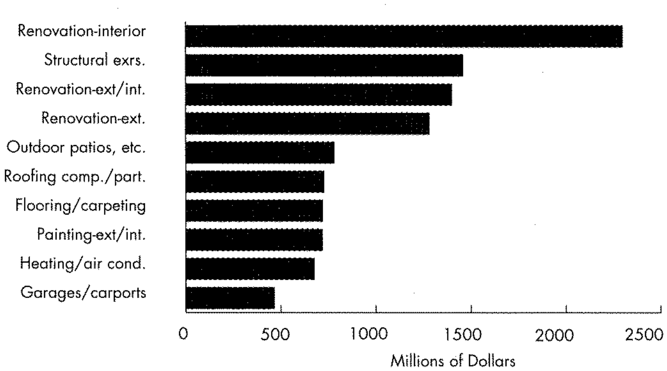
From this profile of expenditures, it can be deduced that home owners funded these expenditures in many ways and that a significant portion were funded directly from household budgets without recourse to financing. Some home owners use credit cards for short-term debt to purchase materials, equipment, and fixtures; some withdraw from a personal savings account; and others negotiate a short-term loan. Two sources of credit are available for larger expenditures: a home equity loan arranged as a second mortgage by a lending institution and refinancing of the first mortgage at an increased amount. However, these larger amounts are less frequent; the three largest average expenditures are in-ground swimming pools ($15,263), involving just 0.3 percent of all home-owner households; interior and exterior renovations ($5,891), involving 3.8 percent; and the addition of a garage or car-

Where the Home Renovation Dollar Goes, Canada, 1990*



*Total $12.8 billion

Top Renovation Jobs in 1990



port ($5,128), involving 1.4 percent. Unfortunately, no data are available to provide a breakdown on sources of capital for the renovation category.

Financing Production of New Housing

While mortgage insurance systems are increasing the prospects of home ownership and mitigating the risks of loan defaults for investors, the producers of housing, who rely upon commercial real-estate lenders, are facing much greater difficulty in obtaining credit. This form of lending has been severely curtailed largely due to market risk associated with the effects of the recession on all aspects the real-estate industry in the 1990s. These risks will remain until the excesses of the 1980s that have plagued most property markets are dealt with and the various imbalances between demand and supply are corrected. Unfortunately, the housing industry has been seriously affected by the severity of the problems in commercial property markets. Re-establishing viable lines of credit to allow new residential development to proceed will be a challenge for housing producers in the next few years.

For the small home-builder (building less than 25 houses each year), arranging financing will remain a relatively simple task. However, the equity provisions are likely to increase from historic levels of 25 percent to as high as 40 percent, and this will necessitate investing a significant amount of personal capital, as well as money from friends, relatives, private investors, or business associates. Financing to cover the cost of purchasing a serviced building site and the cost of construction will still come from a local bank in the form of a construction loan. But such lenders may now require pre-sales as a condition for releasing any funds. In the 1990s, the option of building a "speculative" house with bank debt will not often be granted to the small builder.

However, residential builders increasingly are involved not just in building houses but in the full development cycle — acquiring raw land, planning and developing an entire project, obtaining all the necessary approvals, building the project, arranging financing for buyers, and even managing portions of the property. These larger builders also tend to build more complex projects that may involve non-residential uses and various types of income properties. These projects invariably involve complex financial arrangements with several investors on the equity side, as well as various types of lenders on the debt side.

Large-scale builders must finance three distinct stages in the production process, each usually involving different forms of equity participation and different loan arrangements.

1. **The land acquisition loan** usually entails substantial risk for any lender and, therefore, carries a high interest rate and a very low loan-to-value ratio, usually 60 percent or less. In the past, commercial banks have been the primary source for these loans. The original owner of the land can become a lender by selling the land with payment in the form of a purchase program or a mortgage. In addition, the high equity requirement for a land loan is often met through a syndication of investors.
2. **The land development loan** provides funds for preparing the land for housing, if it is not already serviced, and covers such costs as grading the land and installing sewers, water, utilities, roads, and other infrastructure requirements. This is a very costly operation, and revenues may not be sufficient to offset such costs for many years, depending upon how the project is phased. If the land is already mortgaged to pay for the acquisition, it becomes difficult to negotiate additional debt unless the land acquisition loan can be subordinated to the land development loan.
3. **The construction loan** funds the cost of construction and may cover some portion of the cost of acquiring and developing the land. It is written for a short term, covering only the time of the actual construction of the building. The loan is repaid from the proceeds of the long-term mortgage on the property. The loan is secured by a mortgage placed by the lender, and the high-risk nature of this loan

will mean a high rate of interest and a low loan-to-cost ratio, normally a maximum of 75 percent of budgeted costs. Commercial banks are the primary source of construction loans.

The type of ownership will influence the structure of the financial arrangements. Lenders increasingly look at the capital base of a company when considering a loan, besides assessing the viability of a particular project. The small home-builder will often be a direct owner and, as such, will invest personal funds, accept all liabilities through personal guarantees, and, in return, be entitled to all profits and any tax benefits. Larger projects may involve a partnership between a builder and investors, or even between two builders. Partnerships and syndications are used to combine technical skills with sources of equity capital and are usually approached on a project-by-project basis. Large companies may incorporate as either public or private entities, to provide greater flexibility in their financial arrangements. A corporation may access capital markets directly, raise equity through share distributions, and limit the liability of investors.

SECTION FOUR:

STRUCTURE OF THE HOUSING INDUSTRY

Residential Development Process

Home building is a business enterprise that combines four components of cost — land, labour, materials, and capital — to create a "value-added" product. Building the product involves the participants in a process referred to as the residential development process. It involves both private and public participants and a complex set of decisions. The process can be described in seven steps, although there is considerable overlap in these steps.

1. **Site selection and acquisition**, whether this involves acquiring "raw" land, in the case of the land developer, or a fully serviced site in the case of the small builder.
2. **Market analysis** to define the demand for the product and to identify potential purchasers, including an assessment of their preferences.
3. **Project design**, which translates the interpretation of the market information into a building configuration that suits the site, budget, building program, and various land-use and building regulations.
4. **Government approvals**, which may be as complex as a change in zoning, subdivision of the land, and installation of roads and utilities, or as simple as obtaining a building permit for one house.
5. **Financing** of the land purchase and the construction sequence, which involves a combination of equity and debt, usually in the form of a mortgage against the property.
6. **Construction** of the buildings, as well as improvements such as water and sewer lines and site improvements such as landscaping.
7. **Marketing and sales**, in which a prospective purchaser is secured, preferably before starting construction, but often when the building is finished and available for inspection by an interested buyer.

The participants in this process may undertake all or only some of the steps in this process, depending on the size and range of skills of the developer involved. Three factors characterize the participants in the process (or chain):

1. **Their position in the chain.** Some organizations with a broad set of business skills acquire "raw" land and follow through all steps in the chain, including the construction and sale of housing and the management of rental apartment buildings. Other firms occupy a very narrow band in the chain, for example purchasing serviced lots that suit particular house styles. Their skills may cover a more limited range and focus more on construction activities.
2. **The products in which they specialize.** The production of single-detached housing is a starting point for many new firms and remains the primary product of many home builders. However, some firms venture into the sale of serviced building lots to other builders (residential land developers) or of multi-family housing that may be low-rise or high-rise (apartment developers). More recently, firms have begun to capitalize on the expenditures of renovation work (residential renovators). Because each of these product types requires distinctive sets of skills, companies tend to specialize.
3. **The degree of vertical integration within the organization.** Firms that encompass the broad spectrum in the value-added chain tend to be more vertically integrated, since integration tends to correlate with size. However, the local nature of the housing industry places a severe constraint on the advantages of integration. Firms will tend to rely on local consultants, sub-trades, and suppliers who are familiar with local government officials, local labour practices, and local building conditions. This tendency explains the lack of large national home-building firms — skills and expertise are not readily transferable to different parts of the country. Vertical integration also makes firms more susceptible to the swings of the economy.

Small firms must be adept at handling most, if not all, of these steps with minimal use of contracted consultants and specialists, although they typically rely on independent real estate brokers for sales and marketing. Firms with a scale of operation sufficient to justify the expense will assemble, by means of contracts, "development teams" of experts in different disciplines for specific projects. By applying entrepreneurial management and organizational skills, even a relatively small company can undertake projects of considerable size and scope. Even construction management services can be retained on a project-by-project basis and are no longer viewed as a core competency by some residential firms.

Public and Private Roles in the Planning, Construction, Marketing and Management of Housing

	1. Planning Phase	**2. Construction Phase**	**3. Marketing Phase**	**4. Management Phase**
	Land Acquisition Planning Zoning Change	Site Preparation Construction Financing	Sale and Resale Financing	Maintenance Management Improvement Additions
Private Sector Role	Developer Landowner Lawyer Real Estate Broker Title Company Architect/Engineer Surveyor Soil Testing Lending Institution Community Groups and NGOs	Developer/Builder Lending Institution Insurance Company Contractors Subcontractors Craftsmen and Unions Material Manufacturers Distributors Architect/ Engineer Lawyer	Developer/Builder Real Estate Broker Lawyer Lending Institution Title Company Mortgage Insurer Advertising and Marketing	Developer/Owner Maintenance Firms Property Manager Insurance Utilities Lending Institution Unions Architect/Engineer Contractor Subcontractor Marketing Material Distributor Material Manufacturer Brokerage
Public Sector Roles	Title Registration Lending Regulations Utilities Environmental Regulations Planning Board Zoning Classification Subdivision Regulations Deed Restrictions Official Plans	Contract Law Building Inspector Building Codes Utility Regulations Banking Laws Rules Governing Trade and Professional Associations Insurance Laws Transportation Laws	Recording Regulations and Fees Contract Laws Real Estate Laws Transfer Taxes Banking Laws Occupancy Limits	Property Taxes Income Taxes Health/Safety Codes Insurance Laws Utility Regulations Building Inspector Banking Laws Zoning Regulations Building Code Liability Laws Fire/Police

Components of the Housing Industry

The housing industry contains four distinct components: the single-detached-home building industry (for the most part building single-detached houses and traditionally dominated by small, independent builders); the residential land development industry (converting "raw" or unserviced land into serviced residential lots); the apartment development industry; and the residential renovation industry. All four did not evolve at the same time, nor is it possible to neatly apportion all housing companies into one of these four categories. Traditionally, single-detached home-building has been the most prominent of the four categories, but the renovation sector has gained increasing attention over the past decade.

Single-detached-home Building Industry

The structure of the single-detached-home building industry varies widely across the country. All major urban markets have a large number of small firms, reflecting the ease of entry into the industry. However, the same factors that make it easy for firms to get into the market also force many out, so there is a constant turnover of small firms in any given market. The role of the large builder is less uniform across the country. Toronto, Ottawa, and Winnipeg have a number of large builders, who may be responsible for more than 40 percent of all new houses built. Large builders are less important in Vancouver and are conspicuously absent in Montreal. Such differences reflect local patterns of land ownership, differences in local markets, variations in the regulatory process, and historical factors. Because competition is keen, profit margins have historically been slim, particularly when compared with the risks involved.

A 1984 survey demonstrates the dominance of the small single-detached-home builder: 93 percent of firms were small firms that built fewer than 25 houses per year; a much smaller number (around three percent) were medium-sized firms that built between 25 and 100 houses per year; and only a handful were large firms that built more than 100 houses per year. Even the large firms would be considered small when compared with what might be classified as a large firm in any other goods-producing sector. This suggests that substantial economies of scale are not a feature influencing company size. However, numbers of firms disguise a critical fact of the industry — that medium- and large-sized builders dominate market share on the basis of total revenues. Surveys from 1984 and 1987 indicated that

Number of Residential General Contractors and Developers by Gross Annual Income and Type of Construction - 1987

Type of Housing Constructed	Number of Firms by Gross Annual Income							
	$10,000-249,999	$250,000-499,999	$500,000-749,999	$750,000-999,999	$1,000,000-1,999,999	$2,000,000-9,999,999	$10,000,000 and more	All Firms
Single Detached	9 044	3 981	1 022	462	718	419	110	15 756
Semi-Detached	107	54	2	13	10	15	3	204
Row	86	9	13	8	10	18	4	148
Apartment	601	71	45	50	87	122	26	1 002
All House Types	9 838	4 115	1 082	533	825	574	143	17 110
% of Total	57.5	24.1	6.3	3.1	4.8	3.3	.9	100.0

Sample Breakdown of Construction Costs for a Single Detached House* (exclusive of land and site work)

Preliminaries (permits and professional fees)	3%
Excavation and Foundation	9%
Rough Structure (concrete flatwork and framing)	19%
Full Enclosure (roofing, windows, doors)	15%
Finishing Trades (drywall, interior painting)	13%
Flooring	6%
Other Interior (plumbing, appliances, lighting)	22%
Completions (driveway, landscape, clean-up)	5%
Specialties (fireplace, features)	8%
Total Cost	100%

* Illustrative only; actual costs may vary across the country

Sample Cost Components for a Single-Detached House*

Land	30%
Building Lot	
Hard Costs	45%
Building Construction	
Site Improvements	
Soft Costs	10%
Design Fees	
Legal/Accounting	
Permits/Fees	
Taxes	
Utilities	
Interest Costs	
Marketing/Sales	
Contingency	
Overhead and Profit	15%
Sales Price	100%

* Illustrative only; actual costs may vary across the country.

approximately five percent of the total number of single-detached builders accounted for 50 percent of all revenues of these firms.

Historically, very little capital has been required to launch a small residential building operation in either the single-detached or the renovation market. This is particularly true in a buoyant market. Suppliers and sub-trades are willing to advance credit, and even the building lot may be obtained from the land developer on credit. Most new firms start with one or two individuals with experience in one or more of the residential building trades, and they usually perform some of the construction tasks themselves. Most of the work is subcontracted through informal arrangements with various trades and suppliers. A two-person operation with adequate project supervision, construction management, and financial skills can be very competitive. Unfortunately, no matter how skilled a firm is, the survival rate is still very low for businesses that are not well capitalized and become caught in the swings of demand and supply.

Profits from home building are an elusive item to define, but the rule of thumb is a 15 percent gross margin — 5 percent for overhead (although there is no consistent accounting standard for overhead) and 10 percent for pre-tax profit. Returns are related closely to market conditions and the competitive environment, and they appear to have peaked in the mid-1970s and declined throughout the 1980s. The 1990s have been particularly hard on all firms; as a result of falling house prices in most markets, actual losses have threatened the continued existence of many small, medium, and large builders. The recession of the 1990s will have a significant impact on those who do survive, and a different type of individual may be attracted into the business in the future.

Residential Land Development Industry

Land development has undergone a major transformation over the post-war period. Immediately after the war, much of the land needed for development was provided by municipalities that had acquired building lots through tax defaults in the 1920s and 1930s. Market pressures soon depleted this reserve and, except in Quebec, responsibility for land development shifted to the private sector. While there are large subdivisions throughout the country that were developed from the 1950s through the 1970s by provincial or municipal governments, usually with federal financial support, and while in a few areas municipalities remain in the land development business, most serviced residential land in the post-war period has been developed by the private sector.

The municipal/provincial regulatory framework, in combination with market forces, is the primary determinant of the structure of the residential land development business. This is a business that requires substantial up-front financing to cover land acquisition, a lengthy approvals process, and the installation of infrastructure. Municipalities also may restrict the amount of land that may be developed at a particular time within a planned subdivision. Because well-capitalized companies are best equipped to deal with these factors, the business has tended to concentrate into a few large companies.

Land developers have been strongly influenced by two major historical trends. First, the escalating cost of raw land makes it difficult to maintain adequate land inventories to meet the demands for building lots during peak building periods. In the 1970s, lot prices rose rapidly in burgeoning markets, and some markets saw the cost of a lot rise from roughly 15 percent of the cost of a new house in the mid-1950s to 30 percent by 1979. The second trend is the shifting of any financial burden of land development away from local municipalities and onto the private sector. Other significant factors have been the scarcity of raw land at reasonable prices, the adoption of official plans that limit urban expansion to relatively few locales, the introduction of more complex approval procedures, and increasing costs related to development standards.

Land markets are more complex than housing markets and are subject to the many regulatory influences imposed by local jurisdictions. Land development also requires very different types of skills from those of home building. There are four distinct stages in the land development process:

Sample Land Development Costs for a Builder who Bought Raw Land for Single-Detached Housing*

Cost of Processing Approvals	$2,600
Site Preparation	$3,600
Site Improvements	$12,800
Other Development Costs	$3,500
Total Costs	$22,500
Acquisition Cost	$15,000
Impact Fees	$2,500
Total Cost/Unit	$40,000

* Illustration only; actual prices may vary across the country

1. The land must be purchased from five to ten years in advance of the building of the houses in order to allow for the lengthy process of planning and securing approvals for development plans. To minimize risk, an option agreement or conditional sales agreement usually ties the purchase price and the timing of payments to various approvals yet to be negotiated. These agreements commit the purchaser to a considerable investment, and it may be difficult to obtain credit for such a transaction.
2. Once the land is acquired, various municipal approvals that involve the transfer of new "rights" to the property must be obtained. The approvals may start with an amendment to a master plan for the community and proceed to a change in zoning or land use and approval of a plan of subdivision. These planning approvals confer specific building rights on a site-by-site basis. Rights of access are conferred through approval of plans for streets and highways, and the same applies to utilities and services. In return for conferring these rights, the local municipality applies development charges to the land and requires a contribution of land for school sites, parks, playgrounds, and other public amenities and facilities. The approval process takes a minimum of three years, depending upon the complexity of the

proposal; some projects cover a 20-year period.

3. Once approvals are obtained, the land developer is entitled to proceed with grading the site, installing the infrastructure, surveying the building lots, and preparing all of the legal documentation required to sell the individual parcels. This is a costly operation, which can proceed only if the developer can demonstrate a viable plan for selling the serviced sites. If the developer cannot secure the funds for installing the infrastructure, or does not have the capacity to hold the land until current market conditions improve, one option is to sell the land, with the hope of realizing a profit as a result of the fact that the land has received the municipal approvals.
4. Finally, the land developer places the serviced sites on the market. At this stage, there is an expectation of price that will cover the accumulated costs and provide a return commensurate with the risks involved. This is the point where expectations meet the reality of the marketplace. Price is a function of eventual purchase price of the houses, and it must also recognize what the competition is offering. When demand for lots is strong, prices rise, but when demand diminishes, prices can fall below the costs incurred by the landowner.

Although consistent data are difficult to assemble, it appears that, at times, residential land development has been an extremely profitable venture. As with home building, profits in land development peaked in the 1970s (as high as 40 percent for some firms), fell below 10 percent during the recession of the early 1980s, and then climbed again during the remainder of the 1980s. The effects of the recession of the 1990s have been particularly harsh on land developers, who have had to carry their costs for land, approvals, capital, and infrastructure during a long period over which revenues have substantially declined.

Apartment Development Industry

Apartment development is a much more complex sector of the home building industry than other sectors, but covers a significant portion of housing completions. In 1992, 46.1 percent of completions were multiple housing units; however, this figure covers a wide variety of housing types, business operations, and tenure types that are not as susceptible to examination as the single-detached house. The majority of accessory apartments and suites or secondary units are illegal under local zoning and building regulations and are therefore difficult to factor into the production cycle.

Apartment developers are a diverse group that includes firms that buy land and construct rental apartment projects for their own portfolios; firms that build rental projects, then sell the completed projects to investors; and firms that construct condominium projects for sale to owner-occupants. These are generally much larger firms than those found in the single-detached sector, and they may also be diversified into land development, detached housing, and commercial development. This is a segment of the industry that, historically, has been subject to considerable intervention by government, including revisions to federal and provincial income-tax provisions that affect rates of depreciation and tax shelters for investors in rental apartments; direct subsidy programs for rental housing; and the promotion of social housing programs. In recent years, tax incentives for investors in rental apartments have been eliminated, along with other forms of direct subsidy. Private sector developers are heavily involved in the production of social housing. In 1992, in centres with a population of over 10 000, 22 percent of all row-house starts and 32 percent of apartment starts were social housing, with the remainder in each category being market housing.

The golden era of the rental apartment builders was the period from the late 1950s to the early 1960s, when demand for rental accommodation was very strong and coincided with the introduction of new technologies to facilitate high-rise construction. A company in Toronto that built its first building in 1958 had amassed a total rental portfolio of nearly 17 000 units by the mid-1970s. The economics of investing in new rental apartments began to deteriorate in the early 1960s, and this trend continued throughout the 1980s. The ratio of net rents (market rents less operating expenses) to debt service for new construction usually does not justify investment in rental accommodation. Rent controls imposed by some provinces have added further disincentives for the private sector to venture back into the rental apartment market. What then accounts for the high number of multiple-housing completions?

The apartment development industry experienced a number of significant changes through the first half of the 1980s. The termination of government tax incentives, very high interest rates, and a recession-induced decline in demand combined to drop apartments starts in 1984 to their lowest level in 23 years. The subsequent recovery was precipitated by the burgeoning condominium market, particularly in Ontario, although investors in Quebec did re-enter the rental apartment market in response to strong demand. The virtual explosion of the condominium market in Toronto in the late 1980s was the result of a new demand for lifestyle changes among maturing households and a frenzy of investor activity that drove production well beyond the capacity of the market to absorb everything that was built. Much of this production was in the hands of several large firms, and over half of all condominium sales in Toronto in 1986 market were by the top 10 producers.

In 1992, in centres with a population of 10 000 or more, there were 69 354 multiple housing starts (92 percent of total multiple starts), of which 32 125 units (46.3 percent) were rental apartments. Of the total rentals, 45 percent were privately built and 55 percent were apartments receiving assistance through government programs. Most of these assisted units were in Ontario. A total of 23 027 units (33.2 percent) were condominium starts, and another 14 202 starts (20.5 percent) fell into the category of home-owner units (apartment units within owner-occupied housing) and unclassified units. This breakdown highlights the diversity within this sector of the industry and the importance of the condominium market in attracting developers back into apartment construction.

One further breakdown provides some insight into the kinds of builders involved in this work. In 1992, in centres with a population of 10 000 or more, multiple starts totalled 69 354 units, of which 13.6 percent were semi-detached units, 26.4 percent were row houses, and 60 percent were apartments. Semi-detached houses can be built a few units at a time by the builders of single-detached houses and no additional skills are required by the builder. Row houses are a different type of product. They are usually built in clusters and require more capital, more time, and additional construction skills. They are generally undertaken by the medium and large builders because of the financial risks involved. Both semi-detached and row houses are built using the light frame wood construction typical of the single-detached house.

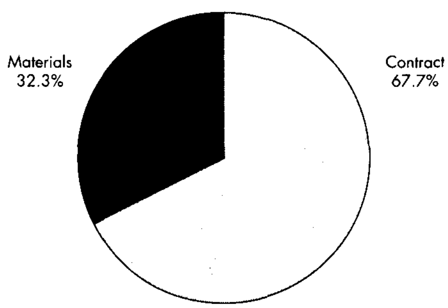
Of the private rental apartments completed in 1992 in the large metropolitan areas, there were 1170 separate buildings containing a total of 16 591 units (approximately 14 units per building on average). Only three buildings had 200 or more units and two of these were in Toronto. The vast majority of private rental apartments (79 percent) were buildings containing six or fewer units, and 84 percent were buildings with fewer than 20 units. Obviously high-rise construction is not a feature of this sub-market, as it was in the 1960s and early 1970s. Even in apartment construction, light frame wood construction up to three storeys in height is very prominent.

Renovation Industry

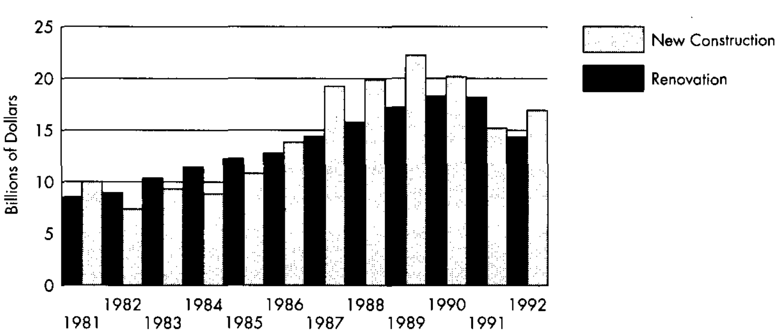
The renovation industry is the fastest-growing market and the one for which the least is known. Over the period 1981-1991, the value of renovation work ranged between 43 and 56 percent of total construction activity. Unlike new construction, renovation is less volatile over the economic cycle, although this does not necessarily imply a more stable environment for businesses associated with renovation work. Because the aging of the housing stock drives the renovation market, future prospects for growth in this sector are good: 57 percent of the 1991 housing stock was over 20 years old, 27 percent was built during the 1970s, and 16 percent was built since 1981.

The structure of the renovation industry is revealed in the pattern of expenditures on renovation. Average expenditures are small ($2,500 to $3,000), and, in 1990, over two thirds of expenditures was paid to contractors, with the remainder spent on materials. A large component of renovation work is undertaken by home owners themselves; in 1990, only 65 percent of national outlays on repairs and maintenance and 72 percent on new equipment and new installations went to contractors.

Renovation - Where the Money is Spent, Canada, 1990



Value of Total Renovation Activity Compared with New Residential Construction, Canada, 1981 - 1992



If not undertaken by the home owner, renovation work is best suited to the small business; a one-person company, usually a tradesperson, is prevalent. The work has to be on-site, cannot be disruptive to the occupants, involves relatively small expenditures, and is highly fragmented in demand. In declining markets, small homebuilders will move into this category of work, but usually of necessity and not out of preference. Entry barriers are low, profit margins are slim, and the qualities of skill and professionalism are not yet hallmarks of this industry. The renovation business today is at the same stage of development that the home building business was right after the war.

To accommodate the burgeoning renovation industry, the building-supply business has begun consolidating in recent years. Huge new enterprises are bringing together the whole range of building materials and some building services under one roof — "one-stop shopping" for both the home owner and the contractor. These new construction superstores are probably the fastest-growing retail sector in Canada.

A consequence of the increasing market share of new housing construction being taken by large firms may be a shift of more small builders into the renovation field. However, there is one segment of this work that has not adequately been exploited by the industry, and that is renovation of the existing rental stock. Unfortunately the demand for renovation of the rental stock has been impeded by low investment returns, rent controls, and regulations that may impose costlier measures than are deemed necessary by the owner. Renovation of the rental stock represents a potential demand that could attract larger firms, more specialty trades, and more sophisticated approaches to the business. The renovation business is still in its infancy.

SECTION FIVE:

HOUSING DESIGN AND PRODUCTION

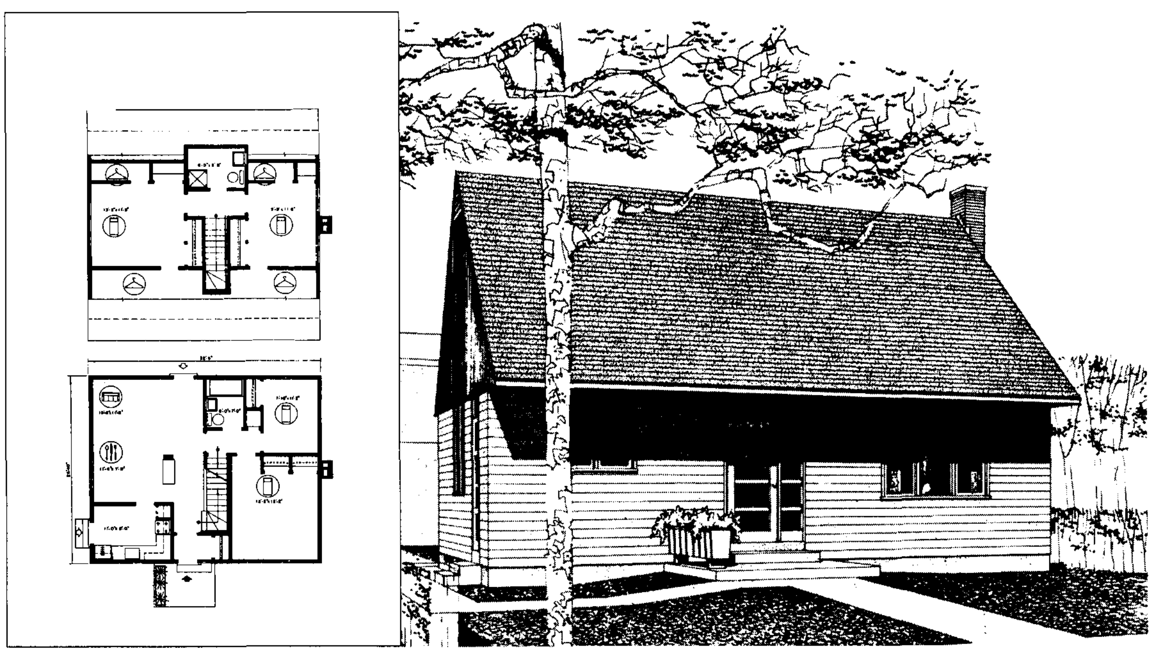
Quintessential Canadian Home

The quintessential Canadian Home is the Type C design, a storey-and-a-half single-detached house. This prototype was used with great success across Canada by Wartime Housing Limited from 1941 to 1945 and in the post-war Veterans Rental Housing Program, as well as by many of the early NHA builders following the war. The Veterans Rental Housing Program alone produced 25 000 of these units from 1948 to 1951. It was a simple house of approximately 92 square metres, with two bedrooms and a half-bath on the second floor and a living room, eat-in kitchen, bedroom, and full bathroom on the main floor. The typical purchaser was a family with two or three children. The design used platform wood-frame construction in an approach that employed traditional materials such as lumber, nails, bricks, cement, and plaster. Assembling these materials required a high proportion of on-site labour for carpentry, masonry, plastering, plumbing, electricity, and heating. The innovation, if it could be called that, consisted of arranging and deploying the constituent elements of labour and materials to cope with production schedules. The owner did the painting, finished the landscaping, added a garage, and finished the basement, usually to be used as a rental suite and later as a family room or additional bedroom for the children.

Platform construction was nothing more than the sequencing of the building trades floor by floor. The installed sub-floor assembly was the "factory floor," upon which the walls could be accurately "jigged" horizontally and then lifted into place. These houses had virtually no pre-assembled or factory-built components other than plumbing fixtures and the heating unit. Each house required approximately 1700 person-hours of on-site labour. This design typifies the best efforts of an industry in its infancy.

This quintessential "starter" home was followed by a sequence of new prototypes that appeared in the late 1950s, along with more sophisticated attitudes to community planning and design. Increased prosperity and the consequences of the baby-boom era prompted new demands. In the late 1950s, the "ranch-style" bungalow became very popular, a style closely resembling the Type B, two-bedroom bungalow

"Type C" Unit



produced during the war. In the early 1960s, the "split-level" and the "bi-level" appeared and made much better use of the basement space. In the late 1960s, the increasing cost of land (and hence the use of smaller lots) made the two-storey unit, a favourite before the war, popular once again. For the first 25 years after the war, most single-family housing was a variation on these three generic types: the bungalow, the split level, and the two-storey unit, in two-, three-, and four-bedroom versions. Throughout this evolutionary process, the market pulled; technology did not push.

The Single-family House as a Cultural Artifact

No artifact is as pervasive or carries as much emotional attachment for the Canadian household as does the single-family house. Perhaps this attachment reflects the relative youth of this country and the opportunities that it has presented to so many immigrants to start new families. It also reflects some of the rural heritage of Canada. It was no coincidence that Canada's post-war housing industry was launched with the single-family house — it embodied the roots of the family, contributed to the stability and well-being of the community, and symbolized the family as the social unit of the nation, at least according to the politicians of the day. This artifact was a wise choice because it prompted a series of designs that mirrored the trends within this new society. In the decades that followed, the shape and character of the single-family house successfully adapted to the following key influences:

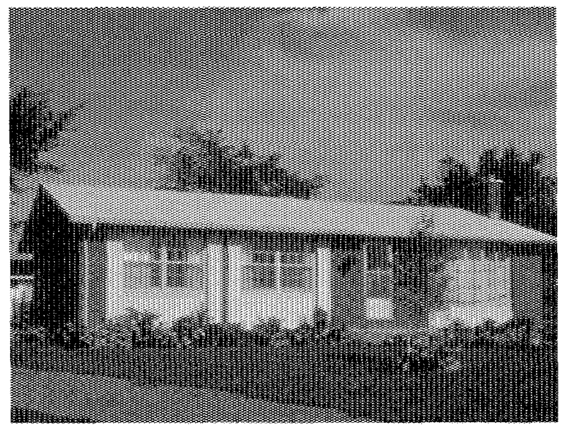
Accommodation of the automobile. The increasing rate of automobile ownership, as well as increasing daily use, necessitated the inclusion of parking for one, then two and possibly three, cars as an integral spatial component of the house.

The spatial arrangement of rooms. The influence of the typical family and associated child-rearing functions in the first three decades following the war gave way to the functional demands of a variety of household types, including those for seniors, single occupants, and people with a variety of special needs.

The site and neighbourhood layout. The decrease in lot size, the position of the house on this smaller lot, and the layout of the neighbourhood and the street pattern all reflect economic forces and cultural attitudes to the natural landscape, as well as domestic concerns such as security, privacy, traffic, and sense of community.

Formal and figural appearance. External and internal appearance, ornamentation, and decorative motifs are usually as important to the home owner as the internal functional organization and the general massing of the house, reflecting a need to personalize the house and distinguish its appearance from neighbouring houses.

Materials and building practices. The flexibility and adaptability of light frame wood construction have facilitated the introduction of many improvements that have contributed to better material performance, better maintenance, and reduced building and operating costs, without conflicting with a desire to portray authentic and traditional values, many of which are embodied in classical architectural styles.



Effects of Lifestyle Changes on the House

Significant shifts in household formation and types of household began to emerge in the early 1970s as the baby-boom population matured, more people began to live on their own, and households became "upwardly mobile" with increased incomes. Neither housing type nor size alone conveyed the immense influence of lifestyle changes to the functional layout and features of the house. Even during the early years, the market began to segment and builders began including an increasing array of features in their houses.

Dependency on the car required at least one attached garage, and a working couple soon needed a double garage, with space for the second car, garden tools, and bicycles. Attention turned to the lot, with the addition of lawns, shrubs, patio, and fencing to delineate the boundaries of ownership and to secure privacy. The washer and dryer became a necessity, wall-to-wall carpeting became fashionable, and forced-air heating was soon complemented with air-conditioning. Two new rooms appeared — a utility room next to the kitchen that opened to a side or backyard and a family room to accommodate the television set. The kitchen expanded to include an eating area and space for a playpen. Pre-assembled kitchen cabinets in various styles introduced a new luxury into the kitchen. Walls between rooms disappeared to create a more "open" plan, and the "picture window" and then sliding glass doors added sunlight to the rooms and connected to the outdoor patio or deck. Demands for more features led to fireplaces, laundry chutes, built-in appliances, a separate shower stall in the bathroom, and many more bathrooms with additional features.

Demand for New Types of Housing

Adaptations to the single-family house to accommodate lifestyle change are modest when compared with the introduction of fundamentally different housing forms to accommodate people who prefer living in multiple-housing units (condominiums, accessory apartments, and other types of alternative housing) or who cannot afford a single-family house. It is no coincidence that alternative housing forms proliferated when land costs began to escalate and interest rates rose well beyond 10 percent. At first, rental apartment builders used highly standardized designs that replicated unit layouts, structural systems, and even exterior finishes. However, through the 1970s and 1980s, a variety of new housing forms and styles evolved, each attempting to capture some of the attributes of the single-family house. These were housing forms that responded to the growth of non-family households, whether attributed to an increasing divorce rate, the young professional market, or young singles entering the work force and locating close to the job. Exercise rooms, swimming pools, game rooms, and other common amenities became standard features in many multiple-housing projects. The widespread acceptance of condominium ownership in Canada's large cities rejuvenated the apartment industry in the 1980s.

Production Process — Assembly Line in Reverse

Whether it involves building one house or 200 houses, or 200 apartments in one building, the production process for housing has one overriding feature — the product is stationary and the workers move past in some logical sequence. This may be thought of as the "assembly line in reverse." This process has been ideal for the large housing tracts of single-family homes that surround Canadian cities, and it stands in marked contrast to the "systems building" that has prevailed in places such as Scandinavia, parts of Germany, and most of the former Communist countries. "Systems building" refers to a method of construction in which the various "systems" of the house — walls, flooring, roofs, and so on — are assembled off site in factories, then transported to the construction site and erected.

It is worth mentioning that Canada and the

United States became interested in European "systems building" in the mid-1960s and tried several of these systems. These ventures coincided with a period (1963-1968) in which apartment starts more than doubled, prompting concern that the traditional North American 2x4 system had reached the limits of its efficiency. Market conditions could not have been better for the trial run. These important systems were heralded as the means of solving the affordability problem, since they were expected to make the construction of multiple dwellings a more efficient process. Four systems were tried in Canada, two using proven European concrete slab systems and two using more experimental concrete box modules. A European wood panel system was abandoned early in the process. Of the four companies launched, all had failed by 1974. None was able to demonstrate, in the Canadian market, the ability to compete on price, quality, and adaptability with conventional industry practices or, more importantly, the ability to satisfy the consumer.

What has therefore transpired over the decades is the evolution of a system of building that may be characterized as "mixed-mode" in the sense that while some parts of the house are still built on site in the "assembly line in reverse," a large number of pre-assembled parts and components are also used, such as kitchen cabinets, windows, doors, fireplaces, and bathtub and shower enclosures. Builders also sometimes use factory-assembled walls, floors, and roofs.

Efforts to Increase Construction Efficiency

In the late 1940s, a builder needed roughly 2400 person-hours of on-site labour and approximately seven months, at best, to build a typical 2x4, wood-sided bungalow of 112 square metres. By the mid-1960s, these figures had dropped to about 950 person-hours and about eight weeks for a comparable house, but with better trim work and finishes. Since the 1960s, further declines in on- site labour and construction time have been negligible.

The efficiencies that occurred mark a fundamental shift to the use of "high-factory-content" materials or "value-added" products, such as plywood for flooring, wall and roof sheathing in lieu of tongue-and-groove boards, gypsum wall board to replace lathe and plaster, floor tiles and carpeting as a replacement for hardwood flooring throughout, pre-finished window and door assemblies, two-coat latex wall paint, transit-mixed concrete, pre-fabricated kitchen cabinets, and light-weight floor and roof trusses. Perhaps the most significant labour-saving devices introduced have been hand-held power tools, truck-mounted hoists for material handling, and pumps for concrete pours. With the technology has come more sophistication in the "assembly-line" sequencing of the trades, improved scheduling techniques, and more accurate systems for cost control.

While subject to the same production process as its predecessors, the single-detached house of the 1990s demonstrates marked improvement in energy efficiency, more durable finishes, and freedom from many of the traditional sources of maintenance. A prime example of improvement is the universal use of 2x6 nominal lumber in lieu of the traditional 2x4 for exterior framing as a result of new energy requirements. These improvements were primarily the work of the material suppliers and product manufacturers, working in conjunction with government in its research and regulatory capacity, and have been subsequently adopted by the home builders, often at a slow and cautious pace.

Although high-rise apartment construction represents only a small part of construction expenditures and is highly concentrated in large urban centres, apartment builders have kept pace with new methods to stabilize costs and improve quality. Competition among a few large companies, particularly in the rental apartment market of the 1960s, led to the introduction of the "climbing crane" and the "fly-form" method of forming for concrete work. The climbing crane increased the versatility of on-site labour crews and allowed greater use of heavier, pre-assembled components. The fly form, developed in Toronto, streamlined the process of on-site concrete pours so that a construction pace of one floor per week became typical for a high-rise building.

The mobile home and the modular house are both efficient forms of construction, but neither has met with much success in the single-family market in Canada. Mobile home production peaked in 1974, and only remnants of that industry exist today. Manufactured housing, which includes both modular housing and housing components, has not done much better, although it does compete in the second home or recreation home market. A modular house is made up of a number of parts that have been constructed in the factory and then brought together on site on a foundation to form a complete dwelling. Such housing has been used to supply special housing needs in the North, in remote communities, in resource towns, and on industrial sites. In general, the mobile home and manufactured housing have played a very minor role in new home construction, and the trend has not been encouraging for those who feel the need to promote greater efficiency in the residential construction business.

Comparing Costs of Housing Production

Construction and land costs vary considerably across the country. National cost figures and averages may provide an index but certainly do not reflect the factors that influence the local builder. The overall average price of housing was unchanged from 1991 to 1992, compared with a 6.6 percent increase in 1991 from 1990. Land prices fell in Ontario in 1992, with the largest drop, almost 5 percent, in Toronto. In contrast, all centres west of Ontario posted increases in land prices, with gains in Vancouver and Victoria of 13.2 and 16.3 percent respectively. The construction component of cost shrank by 0.5 percent in 1992, but, again, Vancouver experienced a 5.8 percent rise. The average cost of employing unionized trades increased by 3.5 percent in 1992, following increases of 5.5 and 5.2 percent in 1991 and 1990.

A recent study (*Comparative Analysis of Lot Costs*, Alberta Municipal Affairs) sheds light on the changes that actually occur within a given locality. While the results do not reflect national trends, they do indicate the consequences of recessionary times on the cost structure of housing: costs do not rise indefinitely. Undertaken in Calgary, Alberta, a city hit particularly hard by

Comparison of Housing Production Costs, 1977 and 1991, Calgary

Cost Item	Cost in 1977	Cost in 1991	Change
Labour	$24,737	$15,077	32% drop
Materials	$36,233	$29,483	18% drop
Sub-Total	$60,970	$44,560	27% drop
Impact of code/standards changes		$1,978	4.4% increase
Increase due to industry/market norms		$ 893	2.0% increase
All taxes on construction	$1,818	$2,125	15% increase
Total Construction costs	$62,788	$49,556	21% drop

Comparison Between Costs of Building Typical Home in 1977 and Same Home in 1991, Calgary

Cost Item	1977	1991	Change
Hard Construction Costs	$60,970	$70,278	15% Increase
Soft Costs	$24,200	$15,030	38% drop
Total Construction (excluding taxes)	$85,170	$83,308	no change
Serviced Lot	$56,330	$39,500	30% drop
Total Builder's Costs	$141,500	$124,408	12% drop
Profit (4%in 1977, 6% in 1991)	$5,660	$7,888	32% increase
Price Before Taxes	$147,160	$132,296	10% drop
Taxes	$1,818	$5,927	226% increase
Purchase Price	$148,978	$138,223	7% drop

the recent recession, this study covers all four components of cost — labour, materials, land, and profit and overhead. First, a comparison was made between the cost of building a typical model home in 1977 and the cost of building the same home in 1991. Costs are expressed in 1991 dollars, adjusted for the Consumer Price Index (CPI) for 1977 costs. The model home is a modest bungalow of 100.3 square metres with three bedrooms and a single bathroom, which would be a suitable starter home.

This comparison applies only to Calgary. It would not be prudent to assume identical results in other parts of the country, although some conclusions may generally apply when examining what has happened with housing production costs in Canada over the past 15 years. It appears that construction costs, as a proportion of total costs, were lower in 1991 than in 1977, primarily because labour and materials prices were, in real terms, significantly lower. Changes in industry standards resulting from market demand have increased costs only moderately in cost per square metre, but significantly in total cost due to the increased size of the moderate home according to market preferences. The question remains: in real terms, is housing more affordable in 1991 than in 1977?

To answer this question, a second comparison in the Calgary study was made, this time examining the costs and the influence on affordability of the trend toward larger homes with more features. The study involves the 1977 model home and a 1991 model home, a four-level split house of 145.9 square metres finished on three levels with an attached double garage. Each model home typifies the starter home for that particular era. Costs are expressed in 1991 dollars, adjusted for CPI for 1977 costs. The criterion of 30 percent of gross household income is applied as the maximum spent on shelter for principal, interest, and property taxes. The interest rate in 1977 was 11 percent, and the same rate was used in 1991, since it is very close to the actual rate and simplifies the comparison.

In real terms, according to this study, a single-family starter house was more affordable in 1991 in Calgary as a result of a marked increase in real household income since 1977 relative to the cost of housing. The consumer was able to obtain more housing at a relatively cheaper price in 1991 than in 1977.

Costs and Affordability of Typical Home in 1977 and Typical (Larger) Home in 1991, Calgary

	1977	1991
Cost of Home	$149,000	$138,200
Monthly P.I.T.	$1,420	$1,338
Annual Cost	$17,040	$16,056
Qualifying Income Required	$56,800	$53,520
Average Household Income	$50,220	$58,433
Percentage of Families Able to Afford Purchase of Home	30	52

Competitive Environment of the 1990s

The keen competition and slim profit margins of the 1990s have turned the attention of the home building industry to ways to increase competitiveness, lower costs, and meet the demands of a much more discriminating purchaser, one who has likely made several home purchases in the past and has high expectations. The trends now evident reflect a shift from the small hands-on enterprise, typically launched by a tradesperson, to management-driven businesses involving individuals with additional business skills. These skills are being applied in such areas as:

- responding to consumer demands for more environmentally responsible housing. This includes more efficient use of resources in construction practices and materials and greater efficiency in operating and maintaining the house itself.
- preventing or substantially reducing construc-

tion defects through quality-control procedures. Defects lead to increased costs and dissatisfied customers.

- formalizing subcontracting procedures to more clearly assign responsibilities and enforce quality-control procedures among the various trades.
- developing business plans to assess more accurately the capital and human resource requirements for new ventures.
- expanding the use of the computer to include cost control, computer-aided design and drafting, project scheduling and management, and accounting.

These changes mean that housing has evolved from a construction business into a manufacturing industry. House builders today must have greater managerial and organizational skills and sharper financial and market analysis skills, and must pay rigorous attention to marketing, the environment, and inventory controls.

SECTION SIX:

CONCLUDING OBSERVATIONS AND CHALLENGES FOR THE FUTURE

Canadians in the 1990s are well housed by any international standard. This is a significant achievement for a relatively young country, particularly one that covers such a vast territory. Not only does this expansive land encompass great geographic diversity, it is also home to many different peoples and cultures, as well as a broad diversity of preferences in lifestyle and accommodation. This diversity has promoted home building as a locally based industry with a myriad of small firms, but one that depends on an infrastructure that is national in scope. This is an infrastructure of laws that ensure the rights of all participants; of mechanisms to affect the transfer the property rights; of financial systems that provide access to the capital markets; of regulations that respect the efficiency of housing markets; and of markets that encourage businesses of all sizes and types to apply their entrepreneurial skills. Profits flow from the building of new homes, from the renovation of existing homes, and from services that range from marketing and sales to property management. These are just some of the ingredients that make up the Canadian housing system.

The majority of Canadians enjoy a high standard of housing with little or no direct help from government. The Canadian housing system has evolved since the post-war period within a market economy and with almost exclusive reliance on the resources of the private sector. The entire operation is best described as a partnership between the public and the private sectors, and both sectors have continually sought ways to strengthen this partnership and to accommodate their mutual interest while responding to the changing nature of the marketplace. The trend over the years has clearly been in the direction of increased reliance on the private sector and the withdrawal of government programs that distort market mechanisms. However, where the market cannot meet all housing needs, both government and the private sector strongly endorse a strong public presence. The provision of social housing is the prerogative of the public sector, and the trend has been to move the responsibility for social housing down to the level of provincial and local governments whenever possible.

Housing markets in Canada consist of both rental and ownership units, and both forms of tenure are crucial to providing the range of choices that Canadians expect in almost any part of the country. However, Canadians have expressed a preference for the single-detached house and for living in urban centres. Reconciling these two preferences, along with all the other household desires, is just one of the challenges to the housing industry. The industry must also deal with technical innovation, respond to the macro-economic cycles that affect production levels, speculate on the long-term consequences of demographic shifts, and cope with the harsh reality of local financial and political restraints. It has survived by evolution, not revolution. A history of its products throughout the post-war period attests to its ability to meet societal needs. The housing built today is substantially different from the earlier prototypes, yet the primary method of construction — light frame wood (2x4) construction — has endured and has become an international trademark of Canadian residential construction.

The expectations for a starter house today are grand in comparison with what was acceptable 40 years ago, and builders must find ways to both meet these expectations and continue to make their products affordable. Rising to these challenges has led to the implementation of many new forms of housing, with new materials, new ways of building, and much greater concern for energy efficiency and environmental factors. New forms of multi-family housing — such as accessory apartments within the single-detached home — have led to a more efficient use of land and allowed renters many of the amenities enjoyed by single-detached-house owners.

Mortgage rates appear to be the most significant variable affecting affordability in the 1990s. The decline in mortgage rates over the past few years, coupled with relatively stable house prices, taxes, and heating costs, is promoting increased affordability for Canadians.

Unfortunately, not all Canadians are well housed. There is a continuing need for government support to remedy housing affordability and quality problems, particularly in large urban centres. Direct financial support will be required for those households that cannot obtain suitable housing at an affordable price (said to be in core housing need). There are also the special housing needs of Canada's seniors, aboriginal people, people with disabilities, and people with temporary housing needs, for whom the provision of housing is only part of a much broader program to provide social needs. The integration of a broad range of community and support services for certain households, including those now in private housing, will be a challenge.

Markets for new housing production will become more diverse, more segmented, and more specialized, in order to address the requirements of an increasingly diverse population, including seniors, people with disabilities, and single parents with children. Adapting the existing housing stock to meet the demands of this changing population will be a major challenge to the renovation industry, since the majority of housing needs will still be met by such adaptation. Because the aging of the housing stock drives the renovation market and more than half of the existing stock is over 20 years old, future prospects for growth in this sector are good; however, protecting the integrity of the existing stock will be a long-term challenge in itself.

The early 1990s have been a period of retrenchment for housing firms in many parts of the country. The legacy of the current recession is likely to be a dramatic restructuring of many sectors of the Canadian economy, including the home building industry, which should yield substantial gains in productivity, lower costs, negligible inflationary pressures, and increased sensitivity to market demands in the decade ahead.

Environmental concerns are now at the forefront of the industry, ranging from the desire to create communities that are more sensitive to issues of land consumption and the costs of transportation and infrastructure, to the search to create greater efficiency within the house itself. Technical improvements must be sought that will reduce, re-use, and recycle building materials, cut down on waste materials, improve energy efficiency, reduce indoor contamination, and improve ventilation. These are concerns that affect quality of life for the home owner, as well as the community at large, and that reflect values that the industry must adhere to it if is to provide safe, healthy, affordable, and environmentally responsible shelter for Canadians.

The house in Canada is a cultural artifact. The Canadian housing system has prospered for the past 40 years by providing a fitting symbol for our society. While more must be done, the foundations of the industry are secure. Past housing achievements provide a level of confidence in our future that would be the envy of most countries.

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