The Japanese Housing Market

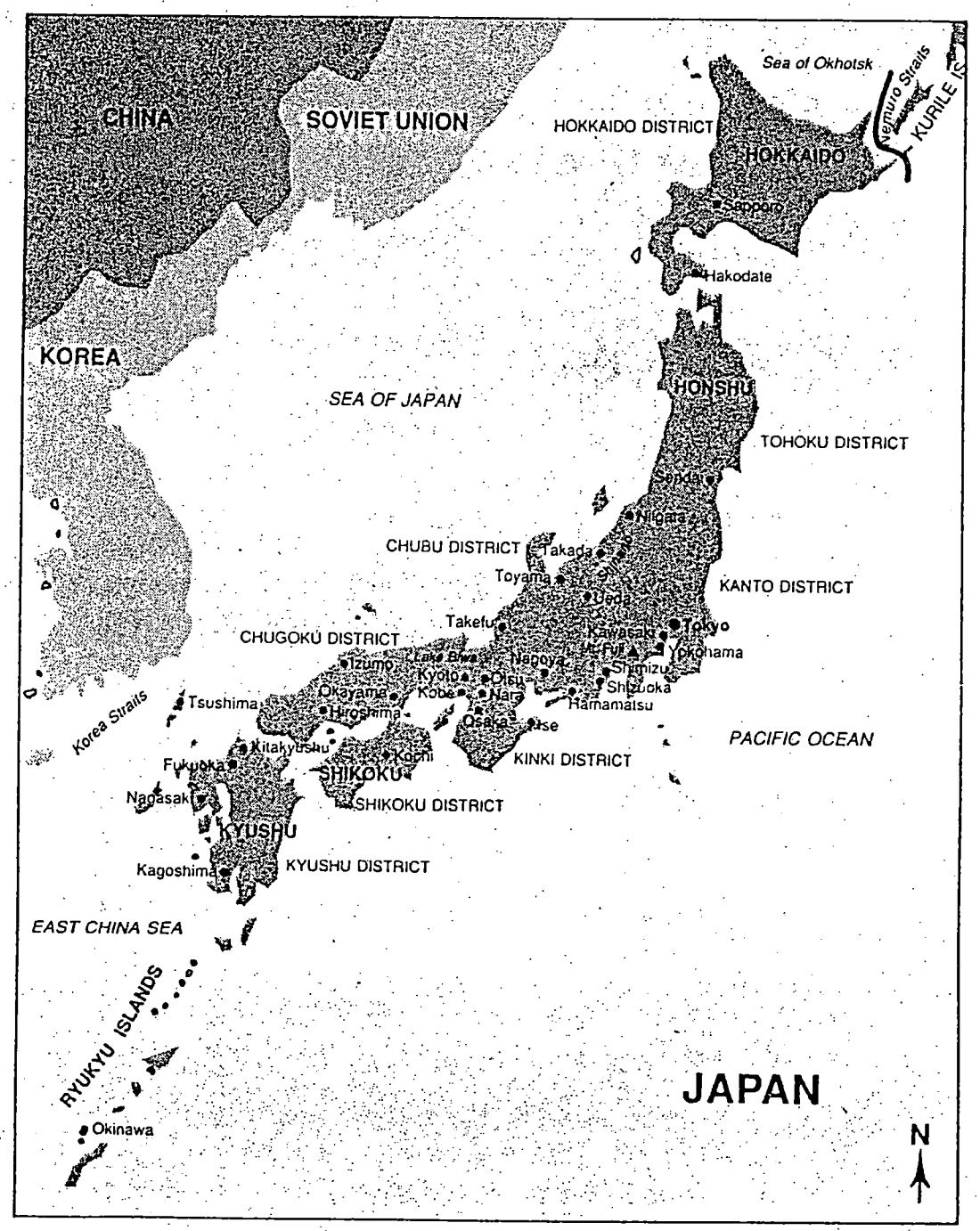
and

The Rebuilding of Kobe

Prepared for:
International Relations
Canada Mortgage and Housing Corporation
700 Montreal Road
Ottawa, Ontario K1A 0P7

Prepared by:
Scanada Consultants Ltd.
446 Reynolds Street
Oakville, Ontario L6J 3M4

August 31, 1995


CHINA
SOVIET UNION
Sea of Okhotsk
Nemuro Straits
KURILE IS.
HOKKAIDO DISTRICT
HOKKAIDO
Sapporo
Hakodate
KOREA
SEA OF JAPAN
HONSHU
TOHOKU DISTRICT
Sendai
Niigata
CHUBU DISTRICT
Takada
Toyama
KANTO DISTRICT
Ueda
Takefu
Kawasaki
Tokyo
CHUGOKU DISTRICT
Izumo
Lake Biwa
Nagoya
Yokohama
Shimizu
Kyoto
Otsu
Shizuoka
Okayama
Kobe
Nara
Hamamatsu
Tsushima
Hiroshima
Osaka
Ise
Korea Straits
PACIFIC OCEAN
Kitakyushu
Fukuoka
Kochi
KINKI DISTRICT
SHIKOKU
Nagasaki
SHIKOKU DISTRICT
KYUSHU
Kagoshima
KYUSHU DISTRICT
EAST CHINA SEA
RYUKYU ISLANDS
Okinawa
JAPAN
N

This study was commissioned by Canada Mortgage and Housing Corporation in early April 1995. The objective of the study was to carry out a quick assessment of the Japanese housing market with specific emphasis on the immediate opportunities presented by the need to rebuild permanent housing in Kobe, as a consequence of the Great Hanshin-Awaji earthquake of January 17, 1995. A further purpose of the study was to provide an assessment of Canada's capacity to respond to the needs and opportunities in Kobe, identify Canadian firms who are ready and capable of exporting to Japan, and, as appropriate, to suggest some strategies that Canada's housing industry might consider to increase its involvement in the rebuilding of Kobe.

This document is not based on original market research by Scanada. It is a compilation of information, data, and insights gleaned from various sources and discussions - most of which are referenced either in the text or in the bibliography. The document is intended to focus the reader's attention on key information, and to suggest possible strategies, concerning involvement in the rebuilding of Kobe.

TABLE OF CONTENTS

APPENDICES

SOMMAIRE

LE MARCHÉ DE L'HABITATION DU JAPON
ET LA RECONSTRUCTION DE KOBE

Dans le cadre de la présente étude, on a évalué rapidement le marché de l'habitation du Japon en accordant une attention particulière aux débouchés immédiats découlant de la nécessité de reconstruire des habitations permanentes à Kobe, par suite du tremblement de terre Great Hanshin-Awaji, qui a eu lieu en janvier 1995. On a également examiné la capacité du Canada à répondre aux besoins et à tirer profit des débouchés à Kobe, déterminé quelles entreprises canadiennes sont prêtes à exporter et suggéré certaines stratégies que le secteur canadien de l'habitation pourrait envisager pour accroître sa part du marché de Kobe et de celui, plus vaste, du Japon.

En se fondant sur la compilation de données objectives et subjectives, les auteurs de l'étude concluent que le marché de l'habitation du Japon offre d'importants débouchés pour le secteur canadien de l'habitation, maintenant et dans un avenir prévisible. La nécessité de reconstruire la ville de Kobe à la suite du tremblement de terre de 1995 entraîne la création de débouchés exceptionnels, car le Japon se lance dans un gigantesque effort de reconstruction (100 000-150 000 logements permanents). On s'attend à ce qu'environ 10 000 de ces logements soient importés.

À Kobe, l'effort global de reconstruction représente toutefois un très faible pourcentage du nombre des logements mis en chantier chaque année au Japon. L'évolution de la conjoncture économique nationale au cours des dernières années et la demande soutenue de logements ont incité le Japon à prendre diverses mesures visant à favoriser l'importation de logements. Bien que la ville de Kobe offre au secteur canadien de l'habitation la possibilité de faire valoir immédiatement ses capacités, les efforts de celui-ci dans le domaine des exportations devraient être axés sur l'ensemble du marché japonais.

Le marché de l'habitation du Japon et le cadre de réglementation sont très complexes, et il faudra relever un certain nombre de défis pour pénétrer ce marché. En plus de décrire les débouchés à Kobe, l'étude donne un bon aperçu des éléments suivants :

° l'ensemble du marché de l'habitation du Japon
° les mesures visant à faciliter les importations de logements et les débouchés dans ce domaine
° des conseils concernant les stratégies de commercialisation et les exigences à cet égard.

L'étude fournit également des informations détaillées sur les entreprises présentes sur le marché de l'habitation japonais, les entreprises canadiennes prêtes à exporter dans ce pays et les principaux organismes et associations du Canada et du Japon.

CMHC SCHL

Helping to house Canadians

Question habitation, comptez sur nous

National Office

700 Montreal Road
Ottawa, Ontario
K1A 0P7

Bureau national

700 chemin de Montréal
Ottawa (Ontario)
K1A 0P7

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

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

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

Le Centre canadien de documentation sur l'habitation
La Société canadienne d'hypothèques et de logement
700, chemin de Montréal, bureau C1-200
Ottawa (Ontario)
K1A 0P7

TITRE DU RAPPORT : _____

_____

Je préférerais que ce rapport soit disponible en français.

NOM _____

ADRESSE _____
rue app.

_____
ville province code postal

No de télephone ( ) _____

TEL: (613) 748-2000
Canada Mortgage and Housing Corporation Société canadienne d'hypothèques et de logement

Canada

REPORT SUMMARY

THE JAPANESE HOUSING MARKET AND THE REBUILDING OF KOBE

The purpose of this study was to carry out a quick assessment of the Japanese housing market with specific emphasis on the immediate opportunities presented by the need to rebuild permanent housing in Kobe, as a consequence of the Great Hanshin-Awaji earthquake of January 1995. A further purpose was to provide an assessment of Canada's capacity to respond to the needs and opportunities in Kobe, identify Canadian firms who are export-ready, and to suggest some strategies that Canada's housing industry might consider to increase its involvement in Kobe, and the larger Japanese housing market.

Based on a compilation of information, data and insights, the study concludes that the Japanese housing market offers substantial opportunities for increased Canadian involvement, now and into the foreseeable future. The need to rebuild the City of Kobe following the 1995 earthquake, presents unique opportunities as Japan undertakes a massive reconstruction efforts, including construction of some 100,000-150,000 permanent housing units. Approximately 10,000 of these housing units are expected to be imported.

The total house rebuilding effort in Kobe, however, represents a very small percentage of annual housing starts in Japan. Changes in the Japanese economy over the past few years and continued demand for housing have led to a variety of Japanese initiatives aimed at promoting imported housing. While Kobe presents immediate opportunities to demonstrate the capabilities of Canadian housing, export efforts should be undertaken within the context of the larger Japanese housing market.

The Japanese housing market and regulatory environment is very complex and presents a number of market access challenges. In addition to addressing Kobe housing opportunities, the study provides a good overview of:

- the overall Japanese housing market;
- initiatives to promote, and opportunities for, import housing; and
- advice concerning marketing strategies and requirements.

Detailed contact information is also provided concerning firms involved in the Japanese housing market, export-ready Canadian firms, and key agencies and associations in both Canada and Japan.

1. Kobe and the Great Hanshin-Awaji Earthquake of 1995

1.1. Overview

Kobe is an important port city with a population of 1.5 million located in the Kansai region of Japan, one of the most prosperous industrial zones in the world. The Kansai region, which includes the four large cities of Kobe, Osaka, Kyoto, and Nara, as well as the prefectures of Hyogo, Wakayama, Mie, and Shiga, accounts for nearly 20 percent of Japan's economy. A major earthquake on January 17, 1995, killed approximately 5,400 people and devastated large portions of Kobe and its port, and also caused damage to the nearby city of Nishinomiya and adjacent areas.

1.2. Extent of Devastation

The Department of Foreign Affairs and International Trade (DFAIT) stated in a report dated March 20 that the earthquake destroyed or damaged as many as 90,000 buildings in the region. Estimates to repair the damages are as high as US $100 billion. Reports from the press state that ten square kilometres of the city burned. Reports vary, but as many as 350,000 people were left homeless as a result of the earthquake. As of mid-June, 50,000 people were still living in temporary shelters. A report in the Far Eastern Economic Review dated June 15, stated that 171,000 houses were damaged. Japan's Centre for Industrial Renovation of Kansai (CIRK) estimated the cost of damage or loss for houses alone is in excess of US $21 billion (at an exchange rate of ¥100/US $1). The condition of those partially destroyed homes is not known; perhaps rebuilding will be required to address safety concerns, and will be more cost-effective than repair for a majority of these buildings. The extent of damage is considerable; the port and infrastructure must be repaired prior to rebuilding the city.

1.3. Experience Gained Concerning Housing Structures

A report[1] by the Kansai 2 x 4 Association stated that the majority of collapsed houses were old wooden homes built before construction laws were strengthened in 1980. Some of the main reasons for building failures were stated as general deterioration, decay at base connections, weight of traditional clay tile roofs, and insufficient structure, bracing or connections. Traditional Japanese post-and-beam structures older than 30-50 years did not perform well; they either collapsed or were seriously damaged. The newer post-and-beam, Japanese 2 x 4 framing and prefabricated housing did much better. North American-style wood frame houses suffered little or no damage, while older unreinforced masonry construction sustained the worst damage. While the older reinforced concrete structures were severely damaged by the earthquake, modern reinforced concrete buildings suffered very little damage, although some had localised non-structural damage. Following the earthquake, five major Japanese housing manufacturers carried out surveys of damage to the housing they had built in the area; most found minor damage and very few failures. Many steel-framed buildings were damaged or destroyed, not by the earthquake itself but rather from the resulting fires.

[1] Mission to Kobe, Japan: Draft Summary Report, March 10-18, 1995. Tab 9.

1.4. Temporary Housing

The extent of destruction created an immediate need for substantial numbers of temporary housing to shelter those whose homes had been destroyed or severely damaged. It appears that most temporary housing will be supplied by domestic manufacturers due to time constraints, domestic production capacity and pressure by Japanese firms for this business. As of February 21, Hyogo Prefecture, where Kobe is located, had procured 30,000 temporary prefabricated housing units from domestic suppliers, with numbers anticipated to reach 40,000. These homes are to be leased for a period of two years; after which they will be dismantled or demolished. As a start, foreign suppliers will provide approximately 1,000 temporary units.

Some of the Japanese suppliers providing initial temporary housing to Kobe include:

- Mitsui Home - supplying 100 units
- Sanwa home - supplying 60 units
- Sumitomo Forestry 2 x 4 - supplying 50 units
- Japanese 2 x 4 Builders Association - supplying 210 units
- Sekisui House

Canada and other countries are responding with aid and temporary housing. Two Canadian companies have been awarded contracts to supply temporary housing units: SRI Homes and Shelter Industries. It was reported in the Report on Business of April 17th that Caparim International Inc. of Ottawa acted as facilitator for a $6-million contract won by SRI Homes of Winfield, B.C., for 140 panelised wood-frame homes supplied to the local government in Kobe. Shelter Industries is reported to have provided 100 units.

1.5. Rebuilding Plans

The city of Kobe must be rebuilt, which involves construction of substantial numbers of permanent housing units. The Hyogo Prefecture Urban and Housing Department has been developing a basic strategy for reconstruction of permanent housing in Hyogo over the next ten years, including a three-year target of rebuilding 125,000 housing units in the Prefecture. The Hyogo Reconstruction Committee has been established to address the Kobe rebuilding efforts.

On March 9, 1995, the Hyogo Prefecture government announced their proposal for a three year plan for housing reconstruction in the Hanshin area (Kobe, Ashiya, Nishinomiya, Asagasaki, Awaji Island). The plan will outline reconstruction efforts to replace the 100,000 to 150,000 houses that were destroyed by the earthquake. Highlights of the plan are as follows:

- to provide low-interest mortgages to designated earthquake victims, including those that did not have insurance;
- to encourage disabled and elderly people to build accessible homes;
- to encourage people to build imported homes since these homes are high quality and low cost; and

- to supply 125,000 homes by March 1998.[2]

In March of this year, the Hyogo Prefectural government said that construction of 15,000 homes has already been started, and another 110,000 will be built over the next three years. Of these, 24,000 will be built by cities and/or the prefecture and will be rented, 18,000 will be built by private companies/people and will be rented through cities and/or the Prefecture, 22,000 will be built by the Housing Construction Public Corporation, and 46,000 will be built by private owners.[3]

The US & Foreign Commercial Service in Osaka expects that the final report of the council will contain the following points:

- most replacement housing units will be privately-built single-family dwellings with special government financing;
- the prefecture will develop vacant prefecture-owned land, and co-develop large former factory sites together with the corporate landowners, to be used for private homes and multi-unit dwellings; and
- the prefecture will build multi-unit low-income public housing units.[4]

The prefecture also confirmed statements in the press that it expects that approximately 10,000 out of the 125,000 homes to be built would be imported. The Hyogo Prefecture has not made it clear who will build imported houses — the prefectural government, municipal governments, the general housing construction public corporation, or individual landowners. However, it was reported that it would be unlikely that the public sector will develop and/or build thousands of imported houses. It is more likely that prefectural and/or municipal governments will provide individual residents with financial and other assistance to help them contract a home builder. Thus each individual will decide whether they want to purchase a traditional Japanese house, an imported house, or other type of dwelling.

In Kobe city, municipal authorities were hoping to have 80,000 permanent housing units on the market within 3 years, but revised this to 40,000 units within 3 years, with another 40,000 units two years after that. The downward adjustment is based on the following conditions:

- shortage of available land on which to build;
- delays in clearing the mountains of debris which is necessary before rebuilding can begin;
- difficulties in bringing in construction materials for a project of this size owing to the congested transportation system; and
- projections that up to 30 percent of the refugees (those demanding housing) will likely return to their old homes after "life-line" utility services have been restored.[5]

The points of agreement on reconstruction plans reached among the central and local governments include that reconstruction work will be continued for 10 years until 2005. The

[2] "Housing Reconstruction Plan Announced by Hyogo Prefecture". Japan Export Promotion Hotline.
[3] "Housing Reconstruction Plan Announced by Hyogo Prefecture". Japan Export Promotion Hotline.
[4] "Kobe Reconstruction: Hyogo Prefecture Housing Restoration Council". Japan Export Promotion Hotline.
[5] "Long Term Housing Needs for Japan, Including Hyogo Prefecture". Japan Export Promotion Hotline.

10-year plan is not expected to be released until July, but will include plans to attract businesses to locate in the area.

However, complaints have arisen regarding the fact that the redevelopment plans drafted by the Hyogo and Kobe governments were forcibly finalised. Articles in Japanese newspapers two months after the earthquake reported that plans for the rebuilding of Kobe were creating controversy as citizens are seeking more involvement in the process, some saying that the bureaucrats drawing up the plans are placing restrictions on private interests. An article in the June 15, 1995 issue of the *Far Eastern Economic Review* suggests that rebuilding the City of Kobe will take much longer than anticipated, and that there is considerable disagreement over the way the City's officials are planning this effort. In their efforts to make the City more disaster-proof for the future, the officials are considering wider roads and big parks to act as firebreaks, which will necessitate rezoning of some communities and residents having to give up as much as ten percent of their land to accommodate the planned public space. Considerable opposition has been expressed by resident groups, and if Kobe officials take time to listen to the residents' concerns, considerable time could be consumed in carrying out such consultations, and in obtaining consensus or in re-drafting plans. Some of the controversy arises from the schemes to build more apartments and condos constructed of concrete; many inhabitants wish to preserve single family homes.

The Centre for Industrial Renovation of Kansai (CIRK) predicts that the earthquake will generate about ¥21 trillion (US $210 billion) in new economic activity, including secondary or related economic activity over a three-year period, 20% of which will be created in fiscal year 1995 (April 1995 to March 1996), 50% in fiscal year 1996 and the rest in fiscal year 1997. Approximately US $70 billion of this is expected to be in the building construction sector.[6]

During a meeting on March 29, 1995, the Canadian Consulate General suggested to the Hyogo Imported Housing Committee (subcommittee of the Hyogo Reconstruction Committee) that Canadian housing producers would be able to supply approximately 8,000 to 10,000 units per year as part of this program.[7]

[6] "The Great Hanshin Earthquake Damage Assessment". Japan Export Promotion Hotline.
[7] Fax communication from Canadian Consulate General, Osaka. March 31, 1995.

2. The Japanese Housing Market

2.1. Overview

The total land area of Japan is about 377,000 km^2. Approximately 30% is suitable for residential purposes, but only 4% is suitable for urban development. From the end of World War II until the early 1970s, housing construction in Japan was rapid as the government tried to make available one house per family. The result was that houses were often small and of poor quality. Now, after two decades and longer, many of these homes show signs of deterioration. People's lifestyles and incomes have also changed in that time period and they now demand a different kind of housing. However, the price of land in Japan is steep, and new homes are expensive. It is not uncommon to find that the price of land in provincial towns and suburbs, i.e. outside urban centres, is more expensive than the cost of building the house, and the cost of land is even higher in urban areas.

2.2. Size of Market: Annual Starts

The annual number of housing starts in Japan is perhaps the highest per capita in the world. In 1993, 1.5 million units were constructed (up 6.3% from the previous year). With a total population of 123 million, the average number of housing starts was 12/1000 inhabitants. In Canada, by comparison, the average was 5.2/1000. The level of approximately 1.5 million units per year will likely continue in Japan for the next fifteen years, particularly in the rebuilding or infill markets. The market is particularly active in the Hyogo prefecture; housing starts rose to approximately 61,000 units in 1993, up 18% from the previous year.

Currently low interest rates, the widening of lending brackets, the lowering of housing taxes, and the drop in land prices are greatly affecting the number of housing starts. Other reasons for the continuation of this level of building are: greater emphasis on consumption, upscaling of consumer tastes and aspirations concerning housing, personal priorities of the younger generation, and a tendency towards more private ownership and a reduction of firm-owned housing.

Imported housing provides an inconsequential number of housing starts relative to the total; only 1,500 were built in 1993. A recent survey suggested that 5,000 houses are likely to be imported during 1995. There appears to be real opportunity for the Canadian housing producers and suppliers to significantly expand their presence in the Japanese housing industry.

2.3. Housing Characteristics

2.3.1. Size

Japanese housing tends to be smaller than that built in North America. The average floor area of housing built in Japan in 1991, including apartments and condominiums, was 81 m^2, while in the US, the average was 153 m^2. For comparison, the average house mortgaged under the National Housing Act in Canada in 1985 was 115 m^2. The average size of Japanese housing

has been increasing in recent years, to 89.29 m^2 in 1993.[8] In the Hyogo Prefecture, which includes Kobe, the 1993 average was 91.76 m^2.[9] The size of imported housing has been in the 100-200 m^2 range.[10]

2.3.2. Types

The breakdown by types of housing built in Japan in 1993 was: single family 45%, multi-family 53%, and terrace housing 2%. That same year, the Hyogo Prefecture had a somewhat higher percentage (58%) of multifamily housing units. [11]

2.3.3. Materials and Methods of Construction

The selection of a material for construction tends to reflect the size and type of housing. Most frequently, single-family and town houses are constructed of wood, while condominiums are constructed of either steel or reinforced concrete. Of total housing starts in 1993, 41% had traditional post-and-beam structure, 37% had steel structure, 18% were prefabricated, and 4% used Japanese 2 x 4 construction.[12]

The primary construction method used in 1994 for single detached housing was:

- traditional post-and-beam (70%),
- manufactured housing (15%),
  - pre-cut 2 x 4 (5%),
  - log (2%),
  - panelised 2 x 4 and 2 x 6 (2%),
  - post-and-beam (2 %), and
  - other (4%).
- site built steel and reinforced concrete (10%), and
- site built 2 x 4 construction (5%).

Prefabricated houses are categorised by material — i.e., wood, concrete and steel. Steel structures have a high degree of processablility and are easy to prefabricate, which explains their widespread use in Japan. Although post-and-beam structure continues to be the most popular wood construction method, both prefabricated panel and 2 x 4 structures are gaining popularity. The market share of these types of homes has steadily risen over the previous five years. This trend is likely to increase due to the shortage of skilled labour.

A presentation[13] in late 1994 to the International Iron and Steel Institute in the US reported that the number of Japanese single family steel-structure houses has increased rapidly. The presentation suggested that this can be attributed to the fact that steel structures have high

[8] Your Market in Japan: Housing. JETRO. January 1995. pg. 4.
[9] Your Market in Japan: Housing. JETRO. January 1995. pg. 3.
[10] Your Market in Japan: Housing. JETRO. January 1995. pg. 11
[11] Your Market in Japan: Housing. JETRO. January 1995. pg. 3.
[12] Your Market in Japan: Housing. JETRO. January 1995. pg. 4.
[13] "Steel Bolsters Japanese Housing". Metal Market. Jan 2,1 995. vol. 103. p 14.

seismic-resistant strength; their economy has improved due to the ease of industrialised fabrication; and the use of light-gauge steel has become prevalent. The increased use of steel in housing is expected to continue but is likely to remain focused on single-family houses and low- to mid-rise apartments, with careful attention to the need for fire protection. Some recent developments by the steel industry with regard to housing construction will move steel structures into a more competitive position in the industry. Steel structural materials produced in Japan are inexpensive and are of good quality, and therefore such materials are not frequently imported.

2.3.4. Cost

Housing costs are two to three times higher in Japan than in North America for a similar size dwelling. A 1993 survey found the national average price for new housing was ¥23.69 million, not including land.[14] (In 1993, when the ¥ was trading about ¥85/CDN $1, this would have been about CDN $278,000. At current exchange rates of about ¥64/CDN $1, this would be about CDN $370,000.) Speculative housing and land averaged ¥40.44 million (upwards of CDN $475,000). The average cost to rebuild on land already owed was ¥33.39 million (CDN $393,000). In this same year, the price for an imported house was ¥20 to 40 million.[15] For the Hyogo Prefecture, this cost, exclusive of land, breaks down to about ¥184,411/ m^2 (CDN $2,157/m^2$, or CDN $200/ft^2$).[16]

Among the reasons for the high costs are:

- a short supply of land, leading to substantial prices;
- multi-tiered structure of housing industry with large profit margins;
- high costs for construction materials due to outmoded and inefficient distribution practices;
- high construction labour costs;
- strict building standards;
- inefficient construction methods, inadequacy of site supervision, and low worker productivity; and
- consumer demands for high quality, custom-built homes.

2.4. Industry Organisation and Operation

Traditionally, there have been two ways in which housing is built and sold in Japan. One is for real estate companies to act as developers and build speculative housing. Another method, used primarily by landowners, is for housing manufacturers or home builders to assume responsibility for the process from design through to construction and sales. Although there are a dozen super industrialised home producing factories in Japan, they only account for 20-25% of the total home production. The vast majority of Japanese homes are still built by relatively small firms producing small, two-story, single-family detached houses. A majority of homes in Japan are built-to-order; whereas in North America, most homes are built speculatively.

[14] Your Market in Japan: Housing. JETRO. January 1995. pg. 4.
[15] Your Market in Japan: Housing. JETRO. January 1995. pg. 11.
[16] Your Market in Japan: Housing. JETRO. January 1995. pg. 3.

2.5. Distribution Network

The distribution system in Japan is unique and complex. It has been identified as one of the most cumbersome systems in the world, where layers of middlemen take commissions that significantly increase the factory-to-consumer price differences. For this reason, many Japanese products can be purchased in Canada at a lower price than in Japan for the identical product.

To exemplify this point, a senior officer of Nu-Fab Building Products Ltd. of Saskatoon, has described the system as follows:

> "The distribution system in building materials in Japan is a nightmare. It goes through about four or five different hands before the end user receives it and they all make a very substantial mark up. As a matter of fact we couldn't understand why some of the pricing of houses in Japan was as high as it was. We found that the average builder in Japan will not enter in a contract to build a home unless he can make at least 25 or 30 points on it. Our package arriving on the job site in Tokyo or Yokohama area is about 15 to 20 percent less than they can put a package together over there through their regular distribution system." [17]

However, with the changes that are occurring in the Japanese economy, this situation is finally being eroded, as the Japanese government is striving to find ways to bring the cost of housing down to more affordable levels. One of the methods to reduce cost may be to reduce the complexity of the distribution system.

The main distributors of imported housing and materials are the sogo-shosa which are conglomerates that started off as trading companies (for a list of the largest firms, see Appendix A). They handle about 50% of all Japanese exports and about 60% of imports. Many of their strengths arise from their size, and include the following:

- They deal with the world and can take the waves of economies of different countries by averaging it all out.
- They import and export and can balance foreign currency fluctuations to a large extent.
- They have financial muscle. Every sogo-shosa has its brother bank, which has a better knowledge of their export potential than any other bank has.
- They have a fantastic information network, because of the volume and diversity of their operations.

[17] Canada-Japan Trade Council. Japan Update '94 Conference Proceedings. October 25, 1994. Regina, Saskatchewan.

2.6. Housing Suppliers

2.6.1. Japanese Suppliers

Japan has nurtured the development and growth of some of the largest housing builders/producers in the world (see Appendix A). However, as stated previously, these large companies account for only about 20 to 25 percent of annual housing starts, with the vast majority of housing being built by small firms and individuals.

2.6.1.1.Prefabricated Housing

Prefabricated homes comprise approximately 16 to 18 percent of the total homes constructed. A small number of companies account for about three quarters of all prefabricated housing starts. In 1991, the following five companies controlled 73% of the prefabricated housing market:

- Sekisui House, Ltd. - 63,938 units
- Misawa Homes Co., Ltd. - 45,937 units
- Daiwa House Co., Ltd. - 39,648 units
- National House Industrial Co., Ltd. - 32,580 units, and
- Sekisui Chemical Co., Ltd. - 28,500 units.[18]

Misawa Homes, with headquarters in Tokyo, last year produced more than 45,000 housing units, and is perhaps the world's best in automated, panelised wood construction. That figure places it within the top five world-wide in quantity, and the firm enjoys a great reputation for quality of construction. This company has 19 factories — 17 producing panelised wood homes and components and two producing steel-framed modulars with precast autoclaved light-weight ceramic skins (PALC).

Sekisui House manufactured 75,000 steel-framed panelised homes in 1994, making this company the world's biggest builder.

2.6.1.2.Two-by-Four Construction

There are two main methods of 2 x 4 construction used in Japan. The larger companies produce vast numbers of housing units or components in factories. Site-built 2 x 4 construction is primarily performed by smaller companies.

In 1991, the following five companies controlled about 45% of the 2 x 4 housing market:

- Mitsui Homes Co., Ltd. - 10,500 units,
- Sekisui Chemical Co., Ltd. - 4,070 units,
- Taihei Jutaku Co., Ltd.- 2,270 units,
- Kinoshita Komuten Co., Ltd - 2,000 units, and

[18] "The Two-by-Four and Prefabricated Houses Market in Japan". JETRO American Embassy, Tokyo. March 1993.

- Sanwa Home Co., Ltd. - 1,900 units.[19]

Mitsui Home has produced the majority of 2 x 4 construction in Japan; over 100,000 units since this type of construction began. As one of the top 2 x 4 builders in the Hanshin area, which includes Kobe, this firm has built over 3,200 units of this type in the region, and is currently providing temporary homes.

The Japanese 2 x 4 Home Builders Association surveyed fifty-five Japanese 2 x 4 builders in February 1995 regarding the total number of housing units built since this type of construction commenced and the numbers built in the Hanshin area. Only 13 builders produced more than 1,000 homes, with two builders (Mitsui Home and Eidai) controlling about 78% of the total 2 x 4 construction.

2.6.1.3.Other Japanese Housing Firms

Another highly visible builder, Tokyu Home Corporation, is a $300 million organisation which has sold thousands of homes in both resort and urban environments. Earther is a Japanese company active in the housing industry that is reported to be working closely with US construction firms and suppliers. Sumitomo Ringyo is the leading builder of traditional wooden construction; building over 7,000 houses in the Hanshin region during its history.

2.6.2. Japanese Importers of Canadian Housing Products

Many Japanese companies import prefabricated housing packages or kits which they assemble and sell in the Japanese market.

Tokyu Home directly deals with 30 overseas manufacturers based in Canada and the US west coast. Materials arrive at the port of Yokohama four or five times a month. After clearing customs, the materials are sent to the Tsukimino Materials Centre in Yokohama city and then to the Japanese manufacturers or agents. This process takes approximately two months.

Todai Construction Engineering Co. Ltd. sells imported housing from Canada. It has stationed staff in Vancouver to procure materials. The company deals with lumber, door, window, and cabinet manufacturers, all located in Vancouver. All materials necessary to construct a house are shipped in containers delivered directly to the construction site. The procedure takes about 50 days.

See Appendix A for a list of Japanese companies which currently import Canadian housing products in the area near Kobe.

2.6.3. Foreign Suppliers

Japan's moves towards stabilising their economy include steps to reduce their trade surplus. The government is encouraging and assisting with the greater importation of value-added

[19] "The Two-by-Four and Prefabricated Houses Market in Japan". JETRO American Embassy, Tokyo. March 1993.

products, including housing. One-third of the housing imported to Japan is complete package units, often including design, materials, technology and management. In 1991, the value of imported 2 x 4 and prefabricated housing in the Japanese market was controlled by the US (43.3%), Canada (22.8%), Sweden (13.0%), and Finland (10.0%).[20] In 1993, imported homes were built primarily by the US (43 companies), Canada (26 companies), and Denmark (4 companies). Other countries building housing that year included Norway, Finland, the UK, and New Zealand.

Sweden House is the most prolific builder of imported housing from Europe. This firm built one quarter of the imported houses in 1993. With 21 showrooms, Sweden House is particularly visible in the Japanese market.

2.6.4. Export-Ready Canadian Firms

Many Canadian firms are currently active in the Japanese market; several have recently completed deals to provide products and services. Some of those listed below are active in Japan or are looking seriously at the Japanese market. For a more extensive list of "export-ready" firms, see Appendix B.

- Advatech
- Atco Structures
- Douglas Manufactured Homes
- MMH Prestige Homes
- Maple Home Canada
- Maple Leaf Homes
- Modulex
- Quebco
- Royal Homes
- Shelter Industries
- SRI Homes
- Teron Inc.
- Valhalla Homes International
- Viceroy Homes
- Warner Shelter
- Westwood Building Systems

Two firms have recently announced business deals in Japan. AAB Building System Inc. of Cobourg, Ontario has signed a multi-million, 20 year deal with the S.G. Kai Trading Group. The S.G. Kai Trading Group, a 240 member Japanese building conglomerate of contractors, builders and developers have exclusive manufacturing rights for the expanded polystyrene part of the AAB Building system in Japan. An agreement signed in May between Viceroy and Sanyo Electric Co. Ltd. calls for the supply of prefabricated homes to the Osaka and Tokyo regions. The forecast is to supply 100 units this year, growing to 1,000 units within five years.

2.7. Japan's "Life-Style Oriented" Five Year Plan

In 1992, the Japanese government instituted a plan to provide quality housing within commuting distance of major metropolitan areas and targeted to be priced not greater than five times the annual income of the purchaser. The government felt that the rising standard of living in the country required enriched living conditions for its citizens.

[20] "The Two-by-Four and Prefabricated Houses Market in Japan". JETRO American Embassy, Tokyo. March 1993.

2.8. Changing Attitudes and Trends

2.8.1. Changing Attitudes

The Japanese homeowner expects after sales service and extended warranties, and is not used to routine house maintenance. House maintenance is not a high priority in Japan; it is not tied to resale value as it is in North American. The asset value of the traditional Japanese house is depreciated before the average life of 20 years has expired.

While many Japanese prefer traditional dwellings and amenities, western-style architecture is gaining popularity. Common complaints with traditional housing are the lack of storage space, noise, insufficient insulation, small inconvenient kitchens, and low quality finishes. The desire for more comfort, space and features must be addressed in future home building. M. Mihara, an officer with the Tokyu Home Corporation says that "Japanese families are tired of living in rabbit hutches. They want bigger rooms, bigger houses and more space".

The Japanese consumer demands high quality and is willing to pay a premium, but price is becoming a concern. There is a perception among the Japanese that the quality of products produced in North America and Asia is rising, and therefore are more worthy of consideration.

2.8.2. Future Trends

Western style homes will continue to increase in popularity with homeowners who want luxury residences, have lived overseas, and/or like the style. Consumer demand for North American housing, components and fixtures is expected to grow. This style of architecture is commonly built using 2 x 4 construction. Due to its resistance to damage during the earthquake and growing awareness of energy conservation and airtightness, this type of construction, along with other comparable types of wooden construction, can be expected to gain wider acceptance in the market.

The trend towards multi-family wood housing construction is expected to continue since the regulations regarding allowable size was expanded in 1992 to include three story dwellings up to 3000m^2. Multi-family homes, houses for the elderly, lifelong houses with flexible design options, and added equipment appear to offer good sales prospects for the future.

Japan is losing its supply of highly skilled, highly expensive building carpenters — this segment of the workforce is ageing (average age reported to be 57) and younger people are reluctant to enter the trade, in preference for "blue-collar" positions in other industries. This helps to open the door to North American framing techniques which call for lower skill levels than for Japan's traditional post-and-beam type of construction.

In northern Japan, homes built employing American 2x4 design and materials now hold about 6% of the Hokkaido home market, a market share that has held steady for the past few years. Gaining this market share has been largely through the tactic of marketing the homes to those desiring the "exotic" cachet and prestige of owning an imported 2x4 home which has generally been priced higher than average Japanese homes. A few Hokkaido builders have recently

offered 2 x 4 homes at more competitive prices based on their growing savings on the cost of imported lumber and other parts.

The level of interest of the Japanese consumer in western style housing was apparent with the overwhelming response of 2,258 applicants for the 26 available units in Vancouver Village.

3. Opening of the Japanese Market

In a FORTUNE magazine special report on Pacific Rim countries in the November 1, 1993 issue, Kenneth Courtis, senior economist and first vice president for Deutsche Bank Capital Markets In Tokyo, is quoted as describing the cross-roads that Japan was/is facing as:

> "We are living through a profound shift in the paradigm of what Japan is — and what it thinks it should be — in the world. This is a golden opportunity for Japan to stop being so timid and defensive, and to step into a key role on the world stage; to truly improve the quality of life for its people; to really do something about its trade surplus; to unselfishly help its region live up to its potential."

It would appear that Japan is beginning to recognise this opportunity, and is taking action to make positive adjustments to the domestic economy as well as to their activities in the world economy.

The strength of the yen has caused Japan to expand its import market. Political and business interests are attempting to equalise trade imbalances. Japan has held trade negotiations with the US and other countries aimed at reducing barriers to import of products.

The Japan External Trade Organisation (JETRO) is actively working to facilitate imports; several JETRO offices in Canada have been making presentations across Canada to try to get more Canadian companies to become actively involved in export to Japan. Their target audience over the last few years has been building products and housing manufacturers.

The government is beginning to open the bidding on construction projects to foreign competition. In September, 1994, a construction business license was granted to a US building company to conduct full-fledged activities in Japan. Japan is also expanding subsidiaries and joint ventures into other countries.

Japan's Ministry of International Trade and Industry (MITI) plans to offer lower-cost Export-Import Bank loans to businesses that sell imported house kits and housing related materials.

It is expected that the Japanese government will continue to provide every assistance possible to promote imported housing. Code clearance procedures are being simplified and clarified, tariffs are being reduced, and strong promotional activities are underway. The situation in Kobe will expedite these processes and may provide easier market access to the rest of Japan. While these factors create many opportunities for Canada, other countries are interested as well, generating increased competition. A significant effort is being made by Japanese authorities to deregulate a wide-range of administrative practices that have made business development an often expensive and time consuming undertaking A five-year (1995-2000) Deregulation Action Program promises to ease regulatory restrictions on market entry and enhance price competition.

3.1. Japanese Initiatives to Promote Import Housing

The Japanese Government is going through a period of rapid change in a number of areas, and has been adopting a variety of emergency economic measures to attempt to slow down or reverse the appreciation of the yen. Many of these measures are focused on opening and easing access for import of foreign goods, including building materials, building products and manufactured housing. Reconstruction following the Hanshin-Awaji earthquake (The Great Hanshin Earthquake of 1995) will require the building of a large number of houses in the Kobe area over a reasonably short time period. With regard to reconstruction housing ordered by public bodies, in order to contribute to the reduction of construction costs by using high quality, low cost components, including foreign products, special programs aim to ensure the smooth participation of foreign companies and the provision of information on housing products, including foreign products, to companies involved in supplying components.

Some of the recent initiatives by the Japanese Government to ease restrictions on the import of housing and building products are outlined below:

- The Government of Japan's effort to promote housing imports started with the announcement by the Ministry of Construction (MOC) of "The Action Program for the Reduction of Housing Construction Costs" in March 1994. Since then, interest in North American housing has been increasing in Japan. The need for rebuilding following the Great Hanshin Earthquake will further accelerate this trend. In order to aid foreign firms with requests regarding the approval process, the Building Centre of Japan has set up the Housing Import Support Office (HIS) in compliance with a request from MOC.[21] See Appendix C for the Flow of Approval Process for Imported Houses.
- In late September and early October 1994, Japan External Trade Organisation (JETRO) hosted a visit to Japan by some 71 visitors from 21 nations, including Canada, to introduce them to the opportunities in the Japanese market, including the housing market, and to answer questions and to help them to get involved.[22] It was part of Japan's openly declared mission to increase its imports and thereby reduce its trade deficits with the rest of the world.
- In the fall of 1994 Japan's Ministry of International Trade and Industry (MITI) launched a new association including 38 companies to undertake a project aimed at slashing construction costs by at least 30% in typical Japanese long-range fashion. MITI plans on a seven-year research and development project under their "House Japan" program to provide "high quality housing at lower prices".
- The Ministry of Construction has developed a "Project for the Promotion of the Utilisation of Foreign Housing Components", which is intended to:
  - increase opportunities for participation in the reconstruction following the Hanshin-Awaji earthquake; and
  - enable foreign suppliers to compete on equal terms with domestic suppliers with respect to obtaining information, and so on.

[21] Fax communication from Canadian Embassy, Tokyo.
[22] "Japan is Ready to Import More Housing from North America". Automated Builder. December, 1994. pg. 17.

In order to execute this project, a new centre is to be established by April, 1995 within the non-profit corporation Centre for Better Living, to be known as "The Centre for Promotion of Foreign Housing Components". The Centre will:

- provide information and consulting services in English regarding product standards, procurement plans and procedures, and so on;
- collect/compile information on foreign housing components;
- examine applications from foreign suppliers and verify in advance conformity to standards; and
- supply information to potential purchasers in Japan to help in their selection of foreign systems and components.

These services are available for construction of permanent houses only and temporary houses are not included in the scope of its services. [23]

- The "Agreement on Cooperation for the Mutual Recognition of Building Products and Systems" was signed by Honourable John Manley, Ministry of Industry on October 31, 1994. This agreement between Japan and Canada will improve both countries' access to the other's markets.
- The Deputy Executive Director of The Hyogo Reconstruction Agency, Mr. Ohsumi, announced that an Imported Housing Centre will be opened on Kobe Rokko Island by the summer of 1995. The Centre will include model homes and an information and technical/financial consulting area. Kobe city also has a similar model park plan of imported housing in Sannomiya area, downtown Kobe. MITI/JETRO also seems to have similar model housing park plan for the Hyogo Prefecture. Furthermore, Asia and Pacific Trade Centre, Osaka is also planning an Imported Housing Promotion Centre at their new ATC building and a housing park near to the ATC building. It is scheduled to open in the spring of 1996.
- The Ministry of International Trade and Industry (MITI) and JETRO formed the Imported Housing Promotion Council in the fall of 1993. The council is chaired by a professor of Tokyo University. The members include: the Directors of the Log House Association of Japan, the Chairman of the Tokyo Imported Housing Promotion Cooperative Association, the Japan representative of the American Plywood Association, Counsellors of the Canadian and Danish embassies, a representative of the Japan Foreign Trade Council (The organisation of large trading companies), and Japanese Government officials from the Japan External Trade Organisation (JETRO), the Manufactured Imports Promotion Organisation (MIPRO), the Government Housing Loan Corporation, the Ministry of Agriculture, Forestry and Fisheries, and the Ministry of Construction.
- The Imported Housing Industry Council, a voluntary and unincorporated association composed of 79 Japanese importers and builders of imported houses, had its inaugural meeting April 11, 1995. This council has the support of MITI, but MOC is concerned that imported housing will compete with the long established 2 x 4 Association. The main objectives of the Council are to:

[23] Fax communication from Canadian Embassy, Tokyo.

  - Promote the importation of houses and residential building materials into Japan;
  - Gather and provide information regarding the imported housing industry;
  - Conduct research on the imported housing industry; and
  - Organise missions to foreign countries. [24]
- In mid-May the Government of Japan announced some further initiatives it plans to take as part of its Emergency Action Package to cope with the rapidly appreciated yen, with several of the initiatives focused on imported housing. Such initiatives focus on some of the problems being experienced by manufactured housing exporters and their Japanese importers, such as lack of understanding and knowledge by the Japanese of foreign construction methods and construction management practices. Steps will be taken to alleviate this problem through presentation of seminars and training courses to builders in nine cities throughout Japan. Another initiative focuses on the collection and dissemination of information on foreign houses, materials and suppliers to assist the small-to-medium-sized Japanese builders to make informed buying decisions and to combine orders for greater purchasing power and volume procurement.

There is a wide array of Ministries, Associations and Committees who have vested interests in the rebuilding of Kobe. Some of those that have interest and involvement in the housing field, including some with specific focus on the rebuilding of Kobe, are:

- Special Planning Committee for City Rebuilding (formed by the Japan Town Planning Academy and the City Planning Department of the Japan Architectural Academy)
- Wooden Housing Disaster Survey Committee (formed by the Ministry of Construction and Forestry Agency)
- And associations such as:
  - Japan Wooden Housing Industry Association
  - National Medium and Small Building Industry Business Group Association
  - Japan Two by Four Building Association
  - Japan Prefab Building Association
  - Japan House Builder Association
  - Quality Guarantee Housing Register Organisation
  - Wood Organisation
  - Housing Finance Bank
  - Hyogo Reconstruction Committee

[24] "Imported Housing Industry Council: Newly Created Trade Association Will Likely be Involved in Promotion of Sales of Imported Housing in Japan". Japan Export Promotion Hotline.

4. Import Market

4.1. Opportunity

In Japan, the continuing demand for housing, and the proven sturdiness of imported factory-built homes, has created an opportunity for larger quantities of imported homes.

In addition, the relative strength of the yen is creating an opportunity for firms wishing to export products and services to Japan. JETRO believes that this window of opportunity will remain open for a maximum of five to seven years, but only if the yen does not rise above ¥135/US $1.

The rebuilding of Kobe presents an immediate opportunity to demonstrate the capabilities of the Canadian housing industry to the Japanese. Housing starts throughout Japan are expected to remain at the present levels for the next fifteen years. The home building market in northern Japan, which has a climate more akin to the Canadian climate, has experienced strong growth, presenting opportunities for energy-efficient housing. Several collaborative efforts between Japan and Canada are adapting the Canadian methods to the hot, humid climate prevalent throughout Japan. Japanese firms that import housing from Canada already exist; these and further links should be pursued and expanded.

4.2. Imported Materials

Japan is Canada's second largest export market and one of the fastest growing. The value of exports to Japan in 1994 was $9.5 billion; lumber accounted for $2.3 billion of this total. Canada exported more than $50 million in prefabricated housing in 1994, up 100 percent from the previous year. The export of value-added products is growing, but still accounts for only a small portion of total exports.

Annual Canadian exports to the Kansai region exceed $2 million; building products account for approximately 22 percent of this total.

Canada supplies 80% of the structural lumber used in Japan. The most commonly used cross section for dimensional lumber is 2 x 4, followed by 2 x 10 and 2 x 6. The preferred type is SPF-KD. Another imported structural member is wood I-beams. Canadian plywood is perceived to be of higher quality than plywood manufactured in the US. There is an opportunity to expand the import of sheet goods, including particle boards or oriented strand board. Such imported materials must continue to pass JAS and JIS standards.

Other imported materials include:

- windows;
- doors;
- floor coverings (including hardwood flooring and carpet);
- staircases, railing, and mouldings;
- system kitchens, kitchen cabinet doors, counter tops, and sinks;
- prefabricated wall panels and house packages;
- furniture, fireplaces, natural stone and wood, marble;
- water supply and drainage facilities, plumbing fixtures, and electrical wiring and fixtures; and
- air conditioning and heating equipment.

Percent of Imported Materials by Country (1991)[25]

	Canada	Denmark	Germany	Luxembourg	Sweden	US
Front Doors	5	1		2	24	68
Interior Doors	6				15	79
Patio Doors	10				2	88
Floor Boards	11			2	6	81
Top Lighting	2	72	10		3	12
Bay Windows	9					91
Double Hung Windows	4					96
Horizontal Sliding Windows	6				15	79
Vertical Sliding Windows	9				13	79
Fixed Windows	8				5	87
Single Sliding Windows	15					85
Fireplaces	8	2	8		10	66
I Beams						100
Handrails and Rungs	10				2	88

The methods of imported materials distribution has changed in Japan; no longer do builders rely on wholesalers for the purchase of materials. Imported housing contractors often procure their own materials and also sell them to other contractors. As well, materials suppliers have construction divisions within their own companies. This trend presented a wide variety of options for the involvement of Canadian firms to supply materials to Japan.

4.3. Factors for Success with Imported Housing in Japan

The major factors for success in the Japanese market are price, quality, reliability of delivery, and after-sales service. Costs are impacted by long distribution channels, inventory and transportation management costs to ensure a stable supply, code clearances, reprocessing to meet Japanese construction styles, and high wages of construction workers. The ability to

[25] "The Two-by-Four and Prefabricated Houses Market in Japan". JETRO American Embassy, Tokyo. March 1993.

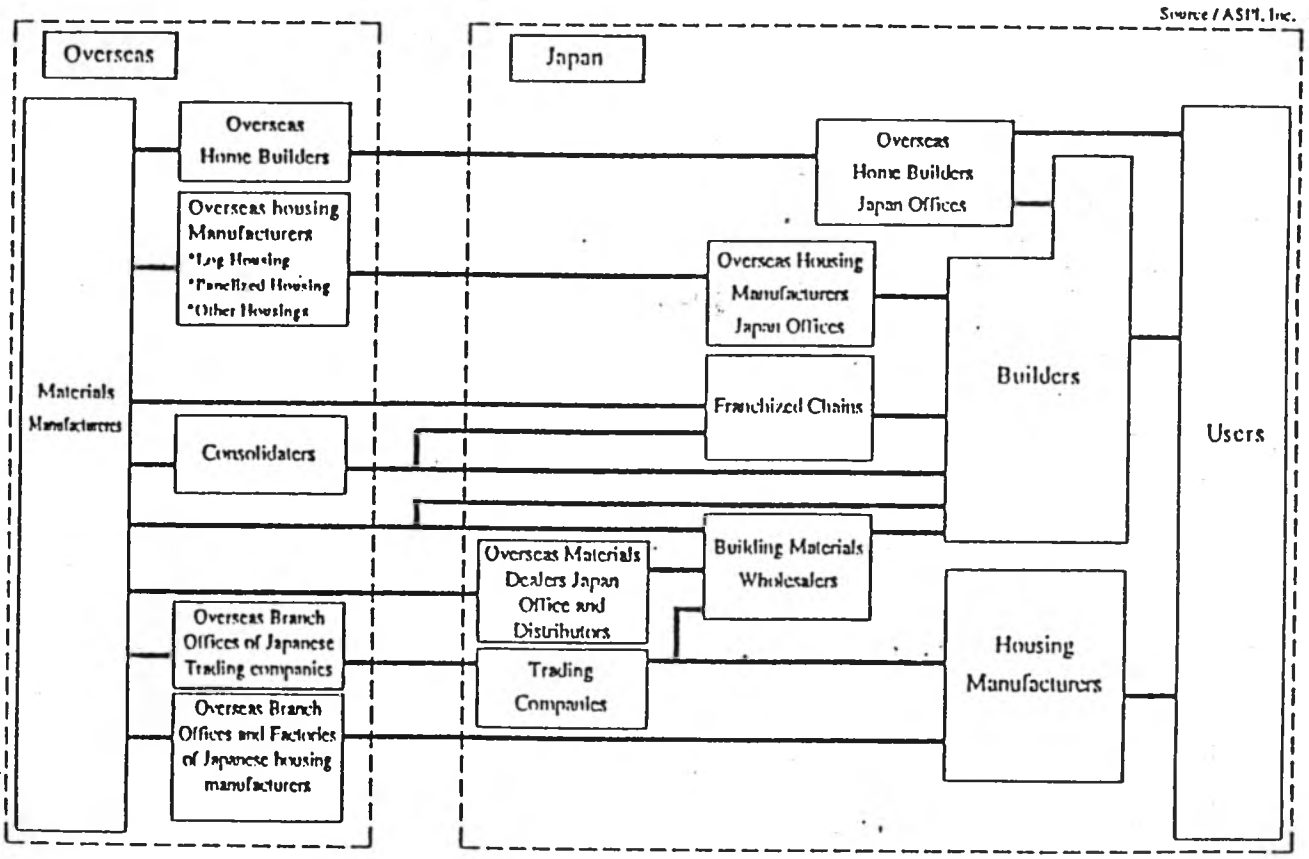
ensure that products arrive on time and in good condition is essential to developing and maintaining strong business relationships with Japanese importers. But unfortunately, unforeseen complications can and do occur. Several Canadian companies, particularly in the Prairies, have experienced an acute shortage of suitable containers. Occurrences such as these do not lead to the perception of reliability to Japanese purchasers. Other factors that need to be considered and addressed properly include:

- Distribution Network
- Insufficient Information, Promotion and Publicity
- Site Management and Labour
- Transportation
- Tariffs
- Codes and Standards

4.3.1. Distribution Network

The distribution network and paths for imported housing and building materials into the Japanese market has been outlined by JETRO as in the following diagram:

Distribution of Imported Housing and Building Materials



4.3.2. Insufficient Information, Promotion and Publicity

Information on North American construction methods and building materials is lacking in Japan. The Japanese consumer is reluctant to purchase foreign made goods, particularly ones with which they are unfamiliar. The construction trades lack knowledge about differing construction methods and materials. There is not a standardised system of measurement or components sizes for imported housing and building materials.

4.3.3. Site Management and Labour

The lack of skilled construction management and labour, and poor supervisory ability of Japanese site foremen, must be addressed prior to effective utilisation of the local workforce. Imported housing must consider differences in weather and climate when designing housing for the Japanese market.

4.3.4. Transportation

Inland freight is costly in Japan. The road system does not accommodate large North American containers, therefore, shipments often must be repackaged into smaller containers. The distribution system is inefficient. Volumes of certain imports are not cost-effective to transport for any great distances.

4.3.5. Tariffs

Import trade is fundamentally considered non-restricted. Currently there is 3.9% duty on import of a complete housing package, but tariff rates for components are unclear. Customs officials subjectively assess the applicable rates independently, and these can range from zero to 20% duty.

Japanese customs law is not written as a set of concise regulations but rather very general guidelines. Therefore, Japanese customs clearance tends to be more of an art than a science — — a considerable amount of discretion is left to each Japanese customs official. Problems tend to occur when shipments are improperly packaged and/or damaged en route or the shipping documents do not have succinct or complete descriptions.

Successful completion of the Uruguay Round of GATT will result in the reduction or elimination of Japanese tariffs on softwood lumber, plywood, particle board, wood mouldings, doors, windows and some other building products.

4.3.6. Codes and Standards

A major earthquake in Tokyo in 1923 caused severe devastation to the traditional wood construction which was predominant at that time. Much of the damage was due to the resulting fires, and since that time building codes have strict regulations regarding fire prevention and flammability of materials.

Regulations differ from country to country; and the Japanese government is reluctant to accept foreign standards for facilities, equipment and materials. The procedures for obtaining necessary permits, certifications and approvals are complicated, costly and lengthy. Application procedures lack uniformity.

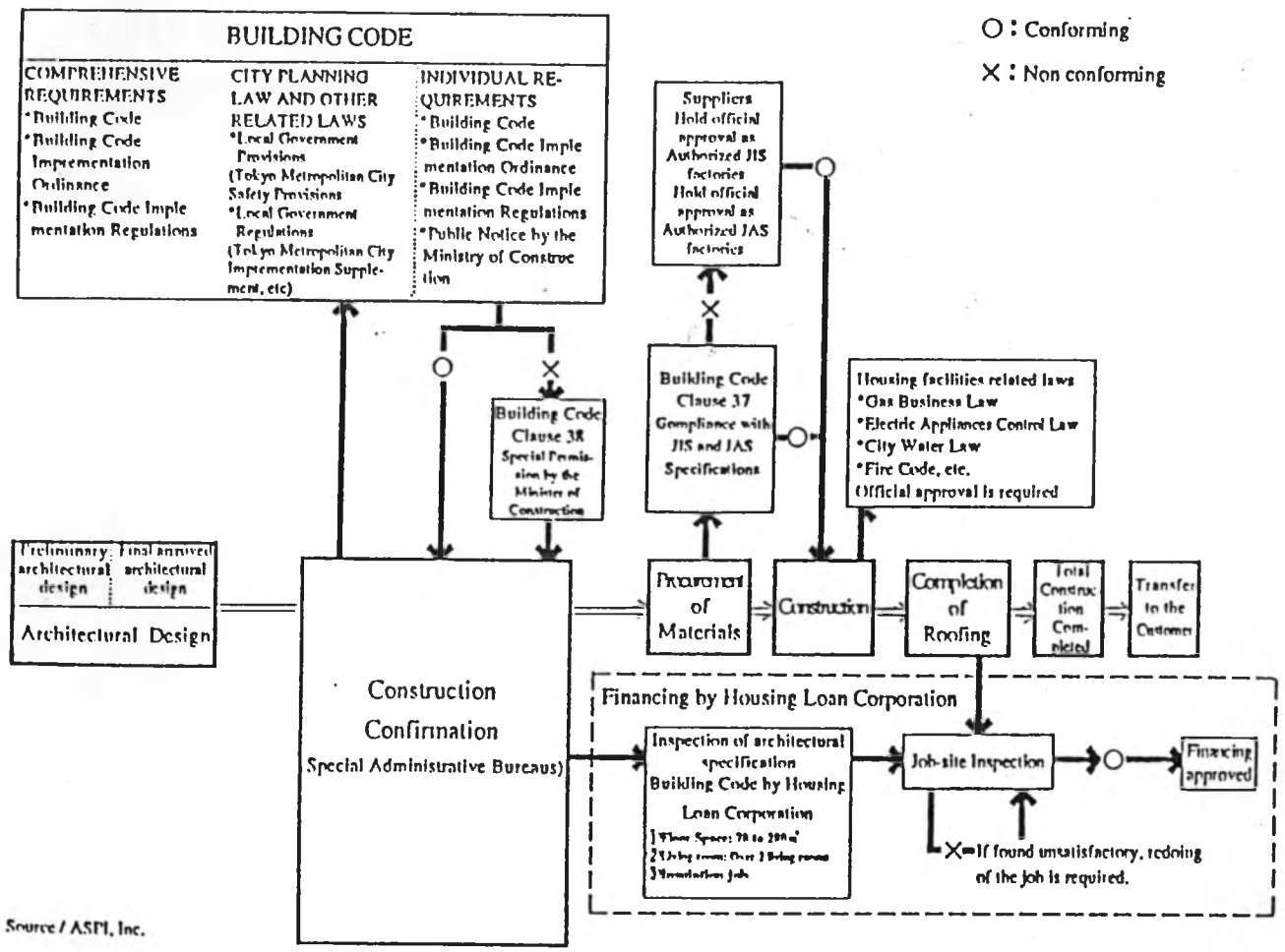
Meeting Japanese standards or receiving a Japanese quality mark is important for winning Japanese customer acceptance. Many Japanese consumers or end-users will only accept products meeting these requirements.

North American plumbing systems are not approved by type in Japan. There needs to be an authorised contractor system for installing gas, plumbing and electrical systems.

There have been recent moves to relax Japanese building regulations and standards. The "Agreement on Cooperation for the Mutual Recognition of Building Products and Systems" will ease the entry of foreign-made products into Japan.

The Laws, Specification and Standards pertaining to Housing construction have been outlined by JETRO in the following diagram:

Laws, Specification and Standards Pertaining to Housing Construction



Source / ASPL, Inc.

The Building Standards Law is by far the most important. It consists of two parts: Individual Requirements and Comprehensive Requirements. Individual Requirements include structural durability, fire retardancy and sanitation which the individual buildings must be equipped with to insure safety. Comprehensive Requirements establish land use and zoning. This standard limits the use of wood windows and doors in fire zones.

Alternative methods of construction must be certified under article 38 of the Japanese Building Standard Law, which can be both time consuming and costly. Thus, housing built using new construction methods and new materials require certification under article 38. Article 38 states that new materials and construction methods not specifically covered by the terms of the Japanese building code may be used provided they are equivalent or superior to those already approved. See Appendix C for a diagram of the flow of the approval process.

In 1972, the Ministry of Construction issued a public notice concerning "Technical Standards for the Platform Construction Method". Since then, it has been revised as the "Technical Standards for Structural Safety of the Platform Frame Construction Method". Housing can be built in Japan according to this method without any legal restrictions whatsoever. This standard includes buildings up to three stories in height and up to 3000m^2.

Hyogo Prefecture currently asks that all imported houses conform to the Japanese Building Standards Law. In a recent study carried out by Yano Research Institute, Ltd. for the Canadian Embassy titled "Present State and Future Prospects of the Japanese Market for Imported Housing", the Buildings Standards Law was cited as the biggest hindrance to imported housing.

The Japan Industrial Standards (JIS) establish uniform specifications for all industrial products. This standard sets regulations for shape, quality, safety requirements in the production process, and technical terminology of individual mining and industrial products categories. Although the JIS mark is voluntary, compliance with these standards significantly enhances a product's image among Japanese consumers and is often essential for a product to sell in Japan. With the permission from the Principal Minister, the manufacturers of these products are allowed to use the JIS label with individual finished products, manufactured in each of their plants or other business locations. To obtain permission to use the JIS label, it is necessary for applicants to have the Principal Minister review the following: a) production and inspection facilities; b) inspection procedures; c) the quality-control process; and d) conditions of production technology necessary to maintain quality standards.

The Japan Agricultural Standards (JAS) is a standard which regulates agricultural products and the use of appropriate quality descriptions. The JAS mark is a voluntary but widely used mark to ensure that applicable products meet specific product quality standards and are labelled in a prescribed manner. The JAS mark is an important quality assurance for forest products. Specific JAS marks exist for various types of plywood, panelling, flooring boards, lumber and timber. There are over 80 government authorised testing and inspection facilities for lumber in Japan. For structural framing materials and flooring used in two-by-four construction and other construction methods, JAS-approved materials must be used according to the Public Notice by the Ministry of Construction (MOC).

Government Housing Loan Corporation approves housing loans and has its own set of standards. There is a difference in insulation standards of the Government Housing Loan Corporation and those of other countries.

Some of the committees that draft Japanese standards have shown reluctance to allow foreign participation. As a result, foreign firms whose products could be affected by new standards have had no meaningful input into the development of those standards. Furthermore, in many cases foreign firms do not learn the details of the new standards until after Japanese firms, which have representation on the committees. As a result, the foreign firms lose critical lead time adjusting to comply with the new standards. This situation is beginning to improve as more standards committees are opened to participation by qualified foreigners.

In the past, Japanese authorities refused to accept the results of tests conducted by manufacturers or independent test laboratories. Companies seeking certification had no choice but to submit to testing and inspection by Japanese authorities, exposing certain proprietary information and incurring additional expense. This situation is also beginning to improve as the Japanese Government allows more foreign firms to conduct testing for Japanese regulations and standards, as stipulated in the "Agreement on Cooperation for the Mutual Recognition of Building Products and Systems" signed on October 31, 1994

Japanese standards often differ from international standards or from standards prevalent elsewhere. While some changes have been implemented, Japanese regulations and standards continue to deviate from international standards in many instances.

5. Marketing Strategies and Requirements

5.1. Partnerships

Many experts suggest that partnership with a reputable Japanese firm is the only method of entering the market in Japan. Care must be taken to select an experienced and reliable company that specialises in importing houses or building materials or a fairly large home builder who knows the Japanese standards and regulations.

Cautions have been expressed that companies should avoid dealing with trading companies, as such an entry can lead into a circuitous and expensive path to the end user.

It is strongly recommended that firms work closely with a Japanese partner to ensure their products meet applicable regulations, standards, and quality marks. Even though some of this information is available here in English, much information is only available through the appropriate governmental ministry and/or only exists in written form in the Japanese language. Therefore, it is often up to the partner in Japan to supply the firm with this information. The partner will likely serve as an advisor on these matters. Moreover, firms should consider designating the partner as the contact person in the company's dealing with the various Japanese Government agencies and ministries. The company will most likely have to provide detailed information on their product in Japanese, and the firm or Japanese partner will have to know the appropriate contacts in the relevant Japanese Government ministry or ministries responsible for granting relevant product approvals.

Initiating a good partnership in almost any foreign market is very important, and in many cases essential to the successful development of business. A partner must be chosen carefully, and the exporter must do real "due diligence" on prospective partners. The exporter should be knowledgeable about, and comfortable with, the chosen partner's business background, experience, credentials, and character, and should not hesitate to ask for, and check, references. The real professionals are pleased to provide such information.

5.2. Commitment

Costs to do business in Japan are very high. It requires a long term commitment, at least a couple of years, before being able to earn money. However, Japan offers a great potential and real opportunities, for provision of housing technologies — including systems, products, materials, and services from Canada. A Canadian firm determined to succeed in Japan has to work to develop an entry opportunity and then has to prove its capabilities. A proven way is to set up a joint venture or a strategic alliance with a Japanese partner. It is important to develop close ties with the Japanese for a successful long-term business association. A local presence or frequent trips to Japan are normally necessary, and the ability to do business in Japanese is also strongly recommended.

5.3. Suggestions by the Hyogo Imported Housing Committee

The Hyogo Imported Housing Committee suggests the following keys to increasing imports to aid Japan in reducing the cost of housing and to help offset trade imbalances caused by the strength of the Japanese currency:

- better information on housing and building products should be provided to potential Japanese home builders and homeowners;
- better information on the Japanese housing market should be available to exporters (i.e. foreign suppliers);
- some deregulation of fire regulations, of the Building Standards Law, and of the authorised contractor system;
- application procedures should be simplified;
- tariffs should be reduced or eliminated; and
- more efficient construction technologies need to be transferred to Japanese markets.

Suggestions similar to these were also put forth by the Imported Housing Promotion Council.

5.4. Recommendations Contained in Canada's Action Plan for Japan

The following recommendations are contained in Canada's Action Plan for Japan prepared by DFAIT in November, 1994.

To build awareness and market knowledge, Canada should:

- organise workshops in various regions of Canada, to apprise companies of opportunities in Japan;
- arrange presentations during annual meetings of industry associations to outline the potential of the Japanese building products market, featuring successful Canadian exporter who can provide advice on the market;
- provide one-on-one counselling of export-ready companies to develop marketing plans, and to provide information on government support programs, how to use Canadian trade offices in Japan, and how to tap into other government information and personnel resources; and
- produce a regular newsletter of market opportunities, produced by trade offices in Japan for distribution through International Trade centres across Canada.

To adapt Canadian products for the Japanese marketplace, Canada should:

- participate in trade shows in Japan to become familiar with the very specific and particular requirements of the Japanese market;
- work with Japanese architects, designers, and builders to adapt Canadian products for Japan; and
- make regular visits to Japan to assess changes in the market situation and to update their sales strategy or products.

To promote Canadian products in the Japanese marketplace, Canada should:

- participate actively in (and personally attend) trade shows in Japan;
- select an aggressive agent and fully engage the agent in production promotion activity;
- utilise experts available in federal/provincial trade offices in Japan;
- transfer skills and technology as needed to facilitate use of Canadian products;
- share information with other Canadian companies in how-to seminars during association meetings; and
- advertise in appropriate trade journals, giving the Japanese agent's name address and telephone and fax numbers.

5.5. Guidance from JETRO

The following recommendations are contained in a JETRO report entitled "Your Market in Japan: Housing", prepared in January 1995:

- Building design, materials and technology/management should be imported as a unit.
- Form partnerships with Japanese firms. Among the most suitable are: housing developers, builders, franchise chains, general trading companies, architectural offices, new-comers from non-housing related industries, and marketing or consulting companies.
- Offer unique qualities not available in domestic housing.

5.6. Guidance from Industry Canada

In an article from the ALUMINEWS magazine, May 1995, a senior commerce officer with the Forest Industry Directorate of the Resource Processing Industries Branch of Industry Canada offers the following five point plan for potential exporters.

- Get copies of the International Trade Business Plan for construction products, forest industries and professional services from Industry Canada. These list international trade shows, missions and priority markets.
- Inquire about the Forum for International Trades Training course, available through community colleges in each province, and enrol in export readiness courses.
- Register your firm in the Business Opportunities Sourcing Service (BOSS) database. It links into other registries, such as the World Information Network.
- Order a free copy of the CanadExport publication; the annual Directory of the Canadian Trade Commissioner Service, which lists 125 international offices to assist Canadian exporters; and the Program for Export Development Program brochure, which outlines potential funding for export marketing programs.
- Contact the Industry Canada building products and services officer in your province.

5.7. Hyogo Prefecture Draft Policy Guidelines

On May 29, 1995 Hyogo Prefecture submitted a discussion draft of policy guidelines for the use of imported housing in the Hyogo Reconstruction efforts. The American Foreign Commercial Service in Osaka has prepared an informal translation of Hyogo Prefecture's draft

policy guidelines concerning the problems facing the introduction of imported housing as follows:

- Lack of information
  - Eight imported housing information centres should be set up where brochures, promotional video tapes, and information on builders would be available;
  - imported housing exhibition sites should be built;
  - an imported model housing project should be considered;
  - imported housing seminars and/or symposiums should be organised.
- Need for Cost Reduction for Imported Homes
  - deregulate visas for foreign carpenters, approvals under the Japanese Building Standard Law, JAS and other standards;
  - more efficient distribution system;
  - standardise imported houses;
  - cost cutting by economy of scale.
- Need for after sales service and warranty system

5.8. Advice from Articles in Automated Builder Magazine

The following items of advice to home builders considering entry into the Japanese market were gleaned from articles in Automated Builder magazine:

- establish a joint venture with a Japanese builder or developer; such a builder or developer may already have land, or knows where he can find it, and knows how the regulations and the system works in Japan;
- avoid dealing with trading companies; deal directly as much as possible; eliminate the middle men who do not add value;
- avoid the expensive custom home market; Japanese buyer tend to be incredibly pernickety and they will simply drive you crazy with all the changes they want to make in the house;
- hire a translator; be able to communicate with the agencies and clients in Japanese; all literature must be in Japanese;
- quality is a prime consideration;
- offer training on how to assemble and finish the house; and
- be cost competitive.

6. Discussion

The City of Kobe was severely damaged by the Great Hanshin-Awaji Earthquake on January 17, 1995. Reports claimed that as many as 170,000[26] houses were damaged, the majority of which were severely damaged or destroyed. The need to rebuild the City will be a massive undertaking; Japan's largest reconstruction project from a natural disaster since the Great Kanto Earthquake in 1923.

The Japanese housing market has been a prime target for Canadian dimensioned lumber and plywood for more than two decades. With the changes in the Japanese economy over the past few years, especially with the substantial increase of the currency, the Japanese market has become very opportune for export of high value-added housing systems and components.

Therefore, Japan had been targeted as a prime market opportunity for housing exports well before the Great Hanshin-Awaji Earthquake. The earthquake has drawn added attention to this market, even though the total house rebuilding effort represents less than ten percent of the annual housing starts. If the projected number of 125,000 housing units is rebuilt over a three-year period it represents about three percent of annual housing starts per year for three years.

The overall Japanese market shows continuing promise for increased penetration by Canadian housing systems, products and services, over an extended period of time, based on the following factors, conditions and needs which exist in Japan or relate to the Japanese economy:

- First and foremost are perhaps the actions being taken by Japan to try to stabilise their economy and to stem the rise, and reverse the trend, of the Japanese yen against the value of other major currencies.
- The housing market in Japan is one of the largest in the world, with typical annual starts in the range of 1.5 million units, and is expected to maintain that level for perhaps the next 15 years.
- With increased affluence from a strong economy over a number of years, the Japanese are no longer content to live in small, cramped housing. They aspire to having better living standards in the form of more space and amenities.
- With the successful introduction of North American wood-frame housing, and the importation of various forms and styles of manufactured housing, and international living experiences, many of the younger Japanese find "western" housing appealing. There is also an expectation that imported housing will be less expensive than domestic housing.
- Another strong stimulus to the import of North American housing systems and technologies is the recent experience from the Kobe earthquake, where the evidence is clear that wood-frame housing is, in fact, a very strong, durable, and earthquake resistant form of construction.
- There may also be substantial opportunities for retrofit of existing structures, probably something the Japanese are not familiar with because they are reported to spend little time

[26]Different reports stated different numbers, and some referred to homes and buildings, while others stated simply buildings or houses.

on maintaining or retrofitting their houses; perhaps the reason for many of the collapses in the recent earthquake. There would appear to be an opportunity to show and train how existing structures can be upgraded, both from a point of view of strength as well as appearance. This would also further open up the market to other materials, components and services.

- There may be an opportunity to become involved in the housing industry in Japan on a much broader scale than simply the provision of housing units. With the requirements for other services in the rebuilding of Kobe, there could be an opportunity for Canada to provide expertise in the areas of town planning (including housing forms and densities), servicing, infrastructure, project development and management, and other services and know-how for which Canada is highly renowned and respected.
- Subsequent to the Kobe earthquake, the Japanese authorities will be taking a careful look at codes to determine how they may need to be modified with regard to earthquake resistance, fire resistance, and other consequences of natural disasters. It would therefore be in Canada's best interests to offer to participate in these deliberations, to ensure that the Japanese authorities take a sensible but rational route in code modifications so that codes do not become too restrictive and eliminate or defeat some of the opportunities that presently exist for North American wood-frame housing technologies.
- Some of the recent demonstrations such as Canada House in Nagoya and Maple Court in Osaka, have been well received, so that Canadian capabilities are already on display. See Appendix F for a more complete list of demonstration projects. On-going installations of Canadian housing in various locations are further enhancing Canada's image as a provider of high quality, appealing housing.

What then is the apparent opportunity for involvement in the rebuilding of Kobe?

- Kobe can be a focal point for display of what Canada has to offer with regard to housing technologies.
- Regulations may be relaxed on a short-term basis (i.e. two to three years), permitting easier access to the market than would be possible under normal market conditions; certain deviations or variances from the norm may be allowed under terms of earthquake relief.
- The opportunity to develop relationships and form partnerships that can carry forward to effective marketing of technologies in other areas of Japan.
- Companies which win contracts and perform well in Kobe will be in a good position to compete successfully in other areas of Japan.
- The opportunity to further strengthen the economic ties and bonds of friendship between Canada and Japan.
- The political will in Kobe to pursue different kinds of entrepreneurial opportunities.

Kobe should not be looked upon as a "windfall" opportunity because the process will be slow and confusing at times, considering the following:

- many of damaged buildings have not yet been removed;
- legalities over transfers of ownership from deceased to next of kin will take time;
- recovery and rebuilding will not be as rapid as early reports might have suggested;

- the considerable disagreement over the rebuilding plans;
- politicians have traditionally been slow to act, and notably so on land controls, which is a big cause of the high cost of housing; this situation may prevail in sorting out the Kobe rebuilding plans;
- the references to making Kobe more "disaster-proof" for the future, could mean expansion of the fireproof zones, as well as some stricter application of codes pertaining to buildings (more earthquake and fire resistant design);
- the local (domestic) competition will be strong; many of the major housing manufacturers are based in the Kansai region;
- other foreign suppliers will also be focusing on Kobe;
- the requirement that all imported houses conform to the Japanese Building Standards Law; and
- the complex distribution system, productivity problems with local workers, and problems related to customers (obsession with quality, desire for customised design, after-sales service, and so on).

However, where there is a need, and the "ability to pay", there is opportunity. Kobe, and the Japanese housing market in general, are prime examples.

Rebuilding plans are being developed, reviewed and eventually formalised, on an on-going basis. Some plans and policies are being challenged and objections raised, so at the present time the situation appears to be rather volatile and uncertain. For example, on the one hand the Hyogo Prefecture has been petitioning the Central Government for relief from certain restrictions for their rebuilding efforts (open bidding for projects, be a special "de-regulation" zone, and so on), while at the same time the Central and local governments are reported to be studying whether to change construction/building codes to strengthen earthquake resistance. Committees have been established to address various aspects of the process, but final plans have not yet been announced. One known fact is that imported housing (building kits, systems, components, and products) is being encouraged, and ease of entry into the market is being improved, but many obstacles to successful market penetration still exist. Some of the more significant constraints with regard to imported housing into the Kobe area are likely to be:

- distribution difficulties (distributor networks);
- transportation shortcomings; and
- lack of tradespeople in Japan who understand the North American systems and have the know-how to assemble them properly and efficiently.

However, where there is a need, and the "ability to pay", there is opportunity. Kobe, and the Japanese housing market in general, are prime examples.

The Canadian Manufactured Housing Association (CMHA), which represents the manufactured housing segment of the Industry, has been studying the Japanese market in some depth over the past two to three years, and has identified that market as one of substantial opportunity for Canadian producers of manufactured housing and key components that are part of the housing (doors, windows, kitchen cabinets, and so on).

CMHA has drafted an export strategy to help members increase sales to various foreign markets, with Japan being a prime target market for significant sales growth over the next five years.

Initiatives such as those outlined in CMHA's Export Strategy are to be commended. However, from the perspective of the overall Canadian Housing Industry, such initiatives must be broadened to include exportable technologies from other segments of the Industry.

For example, there has been a suggestion that of the 125,000 to 150,000 replacement housing units to be constructed, the majority (possibly 75 to 80 percent) might well be high-rise concrete structures. This could be the form the redevelopment may take if the city planners are successful in their bid to have the area(s) rezoned to provide wide roadways and parkland to serve as fire breaks in the case of a future disaster. Canada has developed leading technologies in the use of concrete in buildings, which should be promoted and marketed in Japan.

Many housing technologies are currently being promoted and marketed, either by individual companies (such as a manufactured housing supplier), by associations or councils (such as Canadian Manufactured Housing Association or the Council of Forest Industries of B.C.), by government or private groups acting as agents for selected product suppliers (such as B.C. Trade Development Corporation, DAC International, or CB Materials Inc.) but most of these technologies related primarily to wood-frame housing construction, and focus on products or components made of wood. Whether or not this is absolutely true, it is the impression that one is left with from looking at the current array of marketing documents.

Canada should not be seen as a country that has sound technologies and products for one type of housing only, namely wood housing, but is a world leader in other building technologies. Canada has many other technologies to offer, including systems and products using concrete and metal as key components or constituents, which should be promoted to appropriate groups and in an appropriate manner in Japan.

Canada's Housing Industry has a broad array of technologies — which includes systems, processes, products, and services — available for export and application in foreign markets; many of which would be applicable in the rebuilding of Kobe. The recently completed document titled "Canada's Exportable Housing" contains brief descriptions of many technologies that should be introduced and promoted to those involved in the rebuilding process.

In addition to the "hard" technologies that directly translate into product, Canada has many "soft" technologies, fully applicable to situations such as Kobe, including extensive experience in developing codes and standards, material performance experience, and design and training services to help the importer understand and properly apply the new systems and products.

7. Concluding Comments

Based on the information collected and reviewed, much of which is contained in this report, and on insights gained and opinions heard through a number of discussions with persons

knowledgeable about and/or active in the Japanese housing market, there appears to be substantial potential and opportunity for increased Canadian involvement, presently and into the foreseeable future.

The Canadian presence is becoming more apparent with increasing active participation of Canadian companies and associations. Some agencies and associations involved in the export of housing to Japan have put forth strategies to increase their exports, but these are, quite naturally, focused to promote the interests of their particular members or regional constituents. A broader array of opportunities are evident, and strategies should be developed, and actions implemented, to promote export of technologies — including systems, products, and services — that are representative of the total Canadian housing industry.

Such strategies and action plans should be developed through a national "agency" that facilitates cooperation amongst and co-ordination of the activities of all groups concerned, thereby being representative of and promoting the interests of Canada's housing industry in total.

This national agency — which might become identified as Canada's Housing Export Centre — could develop strategies and implement actions to:

- serve as a source of information and guidance to increase industry members' awareness of opportunities for export;
- assist industry members to prepare for and pursue opportunities in the export market;
- facilitate the forming of consortia to offer international clients "one-stop shopping" for complete residential construction packages; and
- prepare and distribute information to further develop and enhance Canada's image as a nation that is able to provide quality housing at competitive costs in the international market.