An Examination of Japanese Distribution Systems for Imported Wood Products

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by
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Executive Summary

Background

After the United States, Japan is the next-largest market for B.C. wood products. The Japanese market for wood products is characterized by the following:

- investment in housing construction exceeding Cdn$300 billion in 1996;
- a market for finished building products exceeding Cdn$200 billion, with approximately two-thirds incorporating wood;
- more housing starts than the United States each year since 1987;
- annual purchases of B.C. lumber exceeding two billion board feet, representing over 30% of B.C.’s total lumber export revenues;
- imports of B.C. lumber representing a 60% market share by volume of Japan’s total imported softwood lumber imports;
- consumption of Canadian wood in over half of the 650,000-plus wooden housing starts per year; and
- strong growth in demand for imported finished building products, including manufactured homes.

Since the 1960’s, Japan shifted from consuming domestic logs to consuming imported logs:

- consumption of imported logs as a percentage of total log consumption increased from 10% in the 1960s to almost 76% in 1993;
- domestic harvests have declined and Japan currently harvests less than half of its 65 million cubic metres allowable annual cut (AAC); and
- factors driving this shift from domestic to imported log consumption include:
  - the high cost of domestic harvesting, and
  - labour shortages faced by the Japanese forest industry.

Since the mid 1980’s, imports of lumber into Japan have increased dramatically:

- lumber imports more than doubled between 1985 and 1995;
- Canada, particularly BC, enjoyed a significant increase in both lumber shipments and market share in Japan, largely supplying the post-and-beam construction sector;
- factors driving this shift from domestic to imported lumber include:
  - declining availability of log imports
rationalization of the domestic sawmilling industry
⇒ appreciating Japanese currency (Yen)
⇒ high level of housing starts.

In the 1990s, Japan is shifting from importing raw material (such as logs and rough, green lumber) to importing more finished building materials (such as kiln-dried lumber, engineered wood products and finished building products):

♦ BC producers of green Hemlock construction and shop and better lumber have encountered customer resistance and a decline in market share;

♦ Scandinavian producers have increased their exports of kiln-dried lumber to Japan from essentially nil in 1992 to approximately one million cubic metres in 1996;

♦ Canadian SPF producers have more than tripled their shipments (by value) to Japan in the last four years and BC producers have captured over 80% of the market for imported lumber used in 2x4 housing construction;

♦ foreign producers of engineered wood products, such as laminated lumber, LVL, MDF, plywood, OSB and particleboard have experienced strong demand and impressive recent sales growth into Japan;

♦ imports of prefabricated homes have more than quadrupled in the last four years;

♦ imports of finished building products, although in their infancy, have experienced impressive recent growth; and

♦ factors driving this shift from domestically produced to imported finished building materials include:

   ⇒ changing importance of the keiretsu distribution chain;
   ⇒ Japanese government drive to lower the cost of housing;
   ⇒ a changing financial, regulatory and cultural environment;
   ⇒ growth of 2x4 housing;
   ⇒ growth in Japanese pre-cut housing; and
   ⇒ rationalization and standardization in the housing industry.

In the future, Canadian wood exports to Japan will be impacted by substantial social, economic and housing changes in Japan. Such socio-economic shifts will include:

♦ limited economic growth coupled with a rapidly aging population;

♦ the continual migration of the manufacturing sector to offshore locations;

♦ an emerging renovation market offsetting a potential decline in new housing starts;
significant code and standard changes due to the switch from a prescriptive building code to a performance-based building code;

- greater acceptance of western housing systems; and

- increased competition, as all regions exporting to Japan try to migrate up the value chain to produce and sell more finished wood products.

**Past Distribution in Japan**

Japan has had a rigid, multi-layered distribution system for most consumer and industrial products, including wood products. Canadian suppliers have had a limited position within the established trade and, as a result, limited influence in the sale of their products in Japan. This traditional distribution system for lumber and for building materials is shown below:

Trading houses have historically been the main entry point for all imported lumber. They provided a service package that included financing, transportation arrangements, communication with suppliers and paperwork, and they also took ownership of the goods while in transit.

Trading houses focused their trade in commodities and products that did not threaten keiretsu members.

Financing was a key function of distribution as:

- each layer of the distribution system financed the next downstream buyer, extending payment back to the trading house by up to 270 days; and
small builders (building less than 100 units per year) dominated housing construction and relied on promissory notes, as they had difficulty accessing trade finance directly.

**Events Impacting Distribution in Japan**

- **Changing importance of the keiretsu distribution chain**
  - traditional loyalties in the keiretsu distribution chain are breaking down;
  - factors driving the erosion of the importance of the buyer-supplier relationship include:
    - recent recession and highly competitive domestic environment
    - pressure to reduce the cost of housing
    - increased sources of supply of more finished wood products.
  - this erosion, in what was a closed industry structure, creates opportunities for suppliers and end users to trade directly, thereby bypassing the keiretsu distribution chain.

- **Japanese government drive to lower the cost of housing**
  - in Japan, the cost of house construction is currently double that in Canada, more than Cdn$200 / foot²;
  - government policies have been enacted to lower the costs of housing by:
    - deregulating the Japanese housing industry
    - promoting imported building materials and housing packages;
  - these factors are increasing the import of building components and finished building materials. New distribution strategies have reflected a direct-to-builder relationship.

- **Changing financial, regulatory and cultural environment:**
  - devaluation of the yen against all importing currencies will adversely affect the cost of imported goods relative to those produced domestically;
  - Japanese sales tax will increase by 2% this April (1997), causing a short-term decline in housing starts and purchases of building products;
  - significant improvements in the financing ability of wholesalers, builders and construction firms will allow them to finance imports on their own, thereby shortening the distribution chain in Japan;
  - deregulation, such as the recognition of NLGA grade rules, will allow lumber to be shipped more direct, bypassing the distribution function of regrading to JAS in Japan;
the current phased-in reduction or elimination of Japan’s tariffs on imported wood products will make Canadian wood products more competitive with domestically manufactured wood products;

- westernization of Japanese homes is reducing the demand for premium solid wood interior finishing components. Demand for imported shop and better lumber has been impacted by substitute products (e.g., imitation solid wood, wood composites) and the dramatic decline in the number of Japanese-style (Tatami) rooms in new construction;

- the growing demographic importance of the younger generation and its openness to western concepts and non-traditional products, should promote the use of more imported building products.

Growth of 2x4 housing:

- 2x4 housing, with growth over 10% per year, is currently taking market share away from post-and-beam construction. 2x4 housing accounted for approximately 15% of the 700,000 single family residential starts in 1996;

- the construction process for 2x4 housing has largely been distinct from traditional post-and-beam housing, thereby allowing foreign (kiln-dried SPF) suppliers to deal more directly with Japanese building and construction firms;

- the Great Hanshin (Kobe) Earthquake was a turning point for post-and-beam construction and imported housing. North American 2x4 construction methods performed very well in the Kobe earthquake, which has opened the door for:

  ⇒ increased acceptance of 2x4 construction and imported housing
  ⇒ building code changes that will treat imported products more fairly
  ⇒ new products and ideas from North America (particularly engineered wood products and new building systems)

Japanese pre-cut housing:

- there has been dynamic growth in the number of post-and-beam precut plants in Japan, from 150 in 1985 to over 800 today, currently providing over 38% of the material for Japanese construction of post-and-beam houses;

- from the Japanese perspective, prices for North American green lumber supply have been volatile and increasing, with uncertainty in supply inducing Japanese buyers to seek out alternatives such as

  ⇒ Scandinavian kiln-dried lumber and
  ⇒ engineered wood products;
♦ these precut plants are replacing scarce, skilled, high-cost labour with precision technology that operates most efficiently using dried, stable and uniform lumber products as inputs;

♦ the growth in precut housing is expected to continue, thereby fueling the demand for imported dry, precision-cut lumber suitable for factory processing which is often purchased from outside the traditional distribution system.

Rationalization and standardization in the housing industry.

♦ rationalization has occurred in the traditional post-and-beam construction sector as larger construction companies (utilizing prefabricated factory construction) continue to increase their market share;

♦ larger, better-financed construction companies and homebuilders have a greater ability to demand more standardized products and purchase larger volumes directly from offshore suppliers;

♦ as product standardization increases, the historical level of distribution required to deliver small volumes of custom sizes and volumes to small end users will decline.

Recommendations

B.C. Coast lumber:

♦ the switch to the use of precutters for traditional post-and-beam construction, coupled with heightened safety awareness brought on by the Great Hanshin Earthquake, has shifted demand away from green lumber to exact kiln-dried sizes and laminated lumber. The Coastal industry will need to make changes that include:

⇒ an assessment of the Japanese market perception of hemlock and a strategy to reposition this species; and

⇒ investment in research and development programs (e.g., kiln-drying, new products) to encourage changes designed to protect existing market share.

BC Coastal shop and better lumber:

♦ westernization of consumer tastes in Japan is decreasing demand for traditional solid wood interior fittings and encouraging the import of finished building products from North America. The B.C. Coastal remanufacturing industry could help offset the declining trade in shop and better lumber grades to Japan by producing more finished products. This will be assisted by:

⇒ better market intelligence on opportunities for custom-designed solid wood interior fittings and other products produced to Japanese sizes
⇒ transfer of existing Japanese finishing equipment and technology, and better availability of trained, skilled workers
⇒ support for Canada-Japan-Canada missions.

✪ B.C. Interior:

♦ the growth in 2x4 housing and the switch to the use of precutters for traditional post-and-beam construction is creating opportunities for SPF lumber, laminated stock and other products compatible with species grown in B.C.’s Interior region. Interior manufacturers of lumber should examine:

⇒ Japanese market opportunities (and global competition) for kiln-dried lumber, laminated posts and engineered wood products
⇒ technology and knowledge transfer issues concerning the production of new engineered wood products for the Japanese market.

✪ Finished Building Products and Prefabricated Houses:

♦ Japanese trade policy encourages the further importation of manufactured houses and finished building products. Such trade policies suggest Canadian producers should investigate:

⇒ further developing marketing co-operatives, such as the successful Canada Comfort Direct program (CCD)
⇒ establishment of a Vancouver-based showcase for visiting Japanese builders and importers
⇒ promotional efforts using CD-Rom, the Internet, Japanese publications, detailed Japanese-style brochures, and technical seminars in Japan
⇒ expansion of the capabilities of Canadian industry associations to network with Japanese associations
⇒ studies to determine how to provide after-sales service in Japan given the high cost of doing business.

✪ Building systems:

♦ Japanese government policy currently promotes increasing the import of manufactured houses and building products. Opportunities exist to:

⇒ investigate developing proprietary hybrid post-and-beam and 2x4 systems
⇒ investigate innovative transportation, delivery (e.g., knockdown) and storage systems
⇒ further establish mutual product testing methods between Canada and Japan.
Conclusion

A unique window of opportunity for Canadian suppliers exists:

♦ to capitalize on new opportunities by expanding market promotion initiatives for Canadian value-added wood products; and

♦ to reinforce Japanese demand for traditional Canadian lumber supply.

Canadian producers involved in the Japanese market will need to recognize the changes occurring in distribution of wood products in Japan and vigorously pursue trade strategies that leverage this change to their advantage.
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1.0 INTRODUCTION TO JAPAN

Japan covers an area approximately the size of the state of California (or 377,770 km²). It has less than 5% of the land area suitable for urban development. This leaves only a small area to accommodate the living space of more than 125 million people¹. The road system is often difficult for modern transportation², and high land prices dominate. Consequently, storage space available to members of the distribution channel of both consumer and industrial products is very limited and expensive, with warehousing rentals per square metre costing five times those in Canada and the U.S. (Economist, 1997). Thus, each layer of distribution has attempted to have the next layer shoulder the costs of storage. The result has been a delegation of inventory control to suppliers with an emphasis on frequent small-batch deliveries throughout the distribution system (Henkoff, 1995). As most Japanese still tend to shop locally, the last channel member usually needs to be located geographically close to the customer. This has led to a unique multi-layered distribution system servicing Japan’s many small-scale firms. Government laws have also tended to protect this structure and thereby protect small business³.

The historical lack of development of large retailers has resulted in a shift of market power and led to the development of large manufacturers. These large manufacturers often developed exclusive distribution networks within the organization of a keiretsu. Certain business practices of keiretsu, such as preferential buying policies of member companies, essentially excluded new competitors from areas covered by the manufacturers’ distribution network⁴.

By controlling the distribution network, manufacturers largely avoided price competition, and were able to impose high fixed prices onto consumers. Domestic competitive pressures focused instead on quality, service and new product innovation (Keenan, 1994).

After the Japanese bubble economy collapsed in the early 1990s, consumer attitudes changed. Previously, consumers were mainly attracted to upmarket, high-class images and products; today’s Japanese consumer is looking for quality

¹ With a population density of over 300 inhabitants per km² (Economist, 1996).
² Movement of larger trucks and containers is often not possible.
³ The major item of protection is the Large-Scale Retail Store Law of 1974 which gives small shop owners a strong say in the creation or expansion of retail outlets in Japan, thereby limiting the development of large retailers.
⁴ In order to participate as a keiretsu member, supplier companies must first qualify. Becoming qualified is a slow and complex process which includes meeting the buyer’s policy and operational standards and releasing confidential corporate information (Ballon, 1992).
products at a bargain. Consumer resistance to high prices has impacted all industries.

The recent recession in Japan has created a highly competitive environment in which the traditional loyalties in the keiretsu distribution chain are breaking down. It is no longer unthinkable to look beyond existing long-standing keiretsu suppliers. In the past, the Japanese buyer has treated the supplier as an insider; now, preferential treatment in the form of higher prices for related firms is a practice that few firms can afford (Wright, 1996). For example, in the autoparts business in Japan, loyalty to keiretsu members is being challenged. As a result, many auto manufacturer subcontractors are being forced to move their production overseas or develop new products (Ishizawa, 1995). Many Japanese automakers are reducing their dependence on domestic subcontractors by shifting to overseas parts suppliers, a practice unheard of just a few short years ago.

In the wood products industry, a shift in the importance of the buyer-supplier relationship is also occurring. As the number of foreign firms supplying Japanese-sized products for the traditional building market has increased, the need for and practice of committing to a single or limited source of supply have both diminished. Foreign producers from North America and new entrants from regions such as Scandinavia, Austria, and New Zealand are providing the Japanese market with the wood-based building materials it demands.

Increased sources of supply (a traditional preference of Japanese importers), combined with pressures to reduce the cost of housing, are contributing to the erosion (but not the eradication) of the importance of long-term supplier-buyer relationships, the foundation of the keiretsu. This is evident with the rapid increase in the move from traditional Japanese sawmill-supplied material to less expensive imported material. Twenty years ago, local suppliers would be paid a premium to ensure their continued survival. These premiums are rare today.

As a consequence, the Japanese distribution system for forest products is undergoing dramatic changes to accommodate the import of competitive products from a widening group of world suppliers (as well as a shift to the import of more finished products). This change provides new opportunities for exporters, particularly those who have progressed into more finished products, understand the unique features of the Japanese marketplace, and are willing to adapt those products to this unique market.

Much of Japanese government and industry-funded research into housing for the 21st century is focusing on three aspects of housing: the affordable house, the healthy house and the house that is flexible in terms of interior walls and layout.

5 “Canadian capital goods manufacturers offering quality products at competitive prices may discover new market opportunities that were previously precluded by tight keiretsu ties” (Wright, 1996)
The introduction of the affordability aspect is unique to this decade and provides a host of opportunities.

This report will discuss the historical context of the Japanese distribution system for forest products and will investigate the factors and trends that are leading to changes in wood products distribution. This investigation will further explore distribution in the major solid wood sectors and will also provide recommendations for potential public sector initiatives that could assist Canadian manufacturers in adapting to and taking advantage of the changes occurring in Japan.
2.0 BACKGROUND

2.1 Introduction to Japanese Wood Use

Japan is the world’s largest residential house construction market: housing starts for 1995 were approximately 1.5 million units; for 1996, they were over 1.6 million (approximately 60% single family dwellings and 40% multi-family). Of these annual housing starts, some 45% are wood-based. An estimate by the Ministry of Construction of total Japanese construction investment for fiscal 1996 of 81.84 trillion yen (over one trillion Canadian dollars\(^6\)) shows the magnitude of activity in the overall Japanese building sector. The investment value specific to private Japanese housing construction, a significant component of total construction investment, is forecast to increase by 3.8% to 25.27 trillion yen in 1996 (Cdn$300 billion) (Japan Lumber Journal, 1996e).

In order to satisfy this demand, Japan consumes approximately 110 million cubic metres of log equivalents of wood per year. Japan’s reliance on foreign logs and lumber has increased dramatically, from approximately 10% imports in the 1960s to almost 76% in 1993 (Pesonen and Cohen, 1996). This shift in reliance from domestic to imported raw material has occurred for a number of reasons, the main two of which are the high cost of domestic production relative to imports and the labour shortages faced by the industry\(^7\). The physical timber resource in Japan could actually support much higher harvest levels; however, harvest levels are expected to continue to decline as long as harvesting costs remain high by global standards\(^8\). Log imports, on the other hand, have not been able to compensate for this reduction in the domestic harvest\(^9\). Reductions in log supply from Asia, Russia and North America have been experienced by Japan. Some Southeast Asian countries have restricted their log exports in an attempt to develop their own lumber and plywood industries; the byproducts of these new industries and substantial plantation forest land has led in turn to a growing pulp industry.

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\(^6\) Throughout this report, Japanese Yen are converted to Canadian dollars at the rate of 80 Japanese Yen per Canadian dollar.

\(^7\) Over 68% of the domestic log harvest is carried out by small landowners (over 2.5 million private owners in total). The number of forest workers has declined from 440 thousand in 1960 to 110 thousand in 1990, with 70% of workers over the age of 50 (Cartwright, 1995)

\(^8\) Actual annual allowable cut stands at 30 million cubic metres and potential annual allowable cut estimated at 65.6 million cubic metres (Robertson and Waggener, 1994).

\(^9\) In recent years, domestic log supply volumes have decreased at faster rates than imported logs.
Consequently, overall Japanese log supply has steadily declined during the past decade (see figure 1).

![Figure 1: Japan's Log Supply (Source: JAIWAC, 1995)](image)

In Japan, large numbers of small sawmills developed over time to service the unique sizes, specifications and custom demands of traditional post-and-beam builders that still dominate wooden housing construction. However, sawmilling has been viewed as a sunset industry over the last decade in Japan, and has been plagued by a lack of capital investment in new technologies (Bonderud, 1996). This has had an impact on the competitive position of the industry, and the number of sawmills has declined from 24,000 in 1973 to 14,565 in 1995\(^\text{10}\). This downward trend is projected to continue (Japan Lumber Journal, 1996f). A key factor in the decline of the domestic sawmill industry has been its inability to compete with imported lumber. Foreign producers have invested in new technology to retool their manufacturing plants to produce custom lumber in Japanese sizes and grades, facilitating the import of foreign lumber\(^\text{11}\). Canada, and particularly B.C., has been able to take advantage of this increased demand and has enjoyed a significant increase in lumber shipments and market share in Japan in recent years (see figure 2)\(^\text{12}\). New Zealand, Chile and, of late, Scandinavia and Europe, have also become increasingly important importers to Japan.

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\(^{10}\) Less than 600 of the over 14,000 Japanese sawmills account for about 30% of total log consumption (Pesonen & Cohen, 1996).

\(^{11}\) Imports of lumber increased from 5 million cubic metres in 1985 to over 11 million cubic metres in 1995 (Pesonen & Cohen, 1996).

\(^{12}\) Forest products, dominated by lumber, accounted for 77% of the $3.685 billion growth in Canadian exports to Japan from 1990 to 1995 (COFI, 1996).
Thus, with Japan’s growing economy requiring additional wood products, and the decreasing production of the domestic industry, excellent export opportunities for British Columbian firms have emerged since the early 1970s.

Figure 3: Consumption of Wood Products in Japan, 1960-1995.
(Source: Pesonen and Cohen, 1996)

Note: Volumes are as log equivalents. Year 1995 is a forecast.
2.2 Future Trends Impacting Wood Use

2.21 Demographics

Since the end of the Second World War, Japanese society has evolved from the extended family being the dominant social structure to one that emphasizes the nuclear family. The nuclear family does not fit well into the traditional society of Japan, where even today over 40% of marriages are arranged by the older generation. By the year 2010, over 20% of the population will be older than 65 years, with only three workers to support each retiree (Kodansha International, 1995).

Figure 4: Aging Japanese Population (Source: *Economist*, 1995)

This growth of the older population may necessitate the return of the extended family -- and a need for a different kind of house. Land scarcity and corresponding high land prices indicate that single-level or ranch-style homes, the choice of the older generation in North America, will not be possible. The current trend in Japan is to construct larger (almost modular) houses that accommodate the elderly. These homes are well-suited to platform-frame construction using engineered wood products, as they have low-rise stairs, wheelchair accessible kitchens, large easy-open doorways, larger kitchens and more storage space, all of which are requirements for an aging population. One builder in Hokkaido (KST-Hokkaido) specializes in multi-generation homes with an average size over 2,000 square feet, much larger than the 1,100 square foot average for wood homes in Japan.
These changing demographics may provide unique opportunities for the B.C. design community, a group held in high regard in Asia.

2.22 Long-Term Changes in Housing

Japan, with only 50% of the population of the U.S., has built more new homes than the United States each year since 1987. The previously mentioned shift to the nuclear family is only one of the reasons. Another reason is the typical life span of an average house in Japan. Currently, most houses are replaced every 20-25 years. As a result, most new house construction in Japan is on building sites on which homes have been demolished. However, the replacement housing, be it traditional or 2x4, is designed to last much longer, and the average floor space of these newer homes continues to increase. In addition, Japan’s aging population is expected to renovate rather than purchase homes. These factors augur well for a shift from new house construction to more repair and remodeling, currently a smaller market in Japan\(^{13}\). This would mirror trends in the past few decades in North America and Europe\(^{14}\). However, the culture of Japan considers houses a “durable good,” much the way we view automobiles. Most Canadians do not keep a car until it is no longer usable but replace it for one with more modern features. This culture is largely a consequence of a housing boom in Japan after the Second World War that resulted in a large stock of low-quality housing made with poor construction techniques. Today it is more cost-effective and efficient to demolish these older homes rather than repair or remodel them (Eastin, 1994).

This is how the Japanese view housing: whether there will be a cultural shift towards regarding houses as a permanent rather than a durable good remains to be seen.

There is the distinct possibility that, should there be a switch to more multi-generation housing and an increase in longevity of housing prior to demolition, housing starts in Japan will fall from the current 1.5 million level to around one million. This would mirror the shift in the U.S. from 1979 (2.1 million housing starts) to current times (1.5 million). This creates both opportunities and threats. The export of construction lumber would be impacted negatively. However, an opportunity would be created for more finished goods for repair and renovation. Encouraging finished building products, which can be used both for new construction and repair and remodeling, would be an appropriate strategy to profit from either a continued housing boom or a decline in new house construction and an increase in repair and remodeling.

\(^{13}\) The Japanese home renovation market is approximately 25% by value of the total 1995 Japanese housing market and is projected to increase in the future (Canadian Embassy, 1995b).

\(^{14}\) In Canada and in the United States, expenditures in the renovation market are equivalent to new construction expenditures and are expected to increase in the future.
Code and standard changes over the next five to 10 years will provide unique opportunities for Canadian producers. There will be a significant change due to the switch from a prescriptive building code to a performance-based building code. The Japanese Ministry of Construction predicts the following benefits: increased design opportunities, adoption of new technology and materials, increased research and development, acceleration of deregulation, advancement of new technology commercialization, more widespread warranty programs, and increased entry of young people into the construction industry (Canadian Embassy, 1995). This will provide an opportunity for Canada to have an impact on evolving standards, and this could make it easier to incorporate Canadian products in Japan. The full implications of these changes will be long-term and will have considerable market impact.

2.23 Culture

Japanese culture is changing at what must considered a revolutionary pace for such a homogeneous culture. These changes are reflected in house design, material selection, work ethic and business. Japan is entering the global marketplace, not just in terms of supplying products and exporting worldwide, but also in terms of importing globally competitive ideas. The concept of lifetime employment is under attack. The sanctity of the large financial institutions is in question. Japan will have to deal with debt, deficit and onerous social programs; and Japanese manufacturing is undergoing a hollowing-out and the export of manufacturing jobs. These changes will have a tremendous impact in breaking down the complex distribution system that has been perceived as one of numerous non-tariff trade barriers.

2.24 Competition

Japan is becoming a favoured target market for countries all over the world. The list of countries initiating focused marketing promotion for building products in Japan is growing. These include the U.S., Finland, Sweden, Austria, the U.K., Malaysia, Indonesia, Taiwan, New Zealand, Australia, Chile, Brazil and others. Many of these countries have employment problems similar to Canada’s, and are also focusing on moving up the value chain to export more finished building products. Most are increasing their unified promotional efforts in pursuit of the Japanese market. Unfortunately, similar programs in B.C. and throughout Canada are losing government support and gaining only fragmented industry support. The growth in market potential is matched by an even greater growth in competing companies, businesses, regions and countries.
3.0 DISTRIBUTION AND CONSTRUCTION

3.1 History of Distribution

Lumber imported into Japan has traditionally been distributed through a complicated and hierarchical system comprised of trading companies, sawmills, wholesalers (first- and second-layer), wood material markets, wood centres, precutters, distribution centres, retailers, remanufacturers, auction markets, construction firms, local builders, and other types of intermediaries.

The most common distribution path for Canadian lumber entering Japan in the 1970s and into the 1980s is shown in the following figure.

Figure 5: Distribution Path for Canadian Lumber circa 1970s
Trading houses, importers and brokers dominated the import business, making purchases from Canadian supply sources. Lumber was generally purchased in large volumes, often without a specific buyer in mind. Once the wood landed in Japan, trading houses typically financed the sale of this wood to wholesalers or genban sawmills that then took responsibility for merchandising and/or manufacturing and then redistribution of wood. Distribution centres assisted in distribution away from major wood supply areas and were often controlled by large wholesalers. Auction markets, which are very important in domestic sales, played only a minor role in imported wood sales. Roles of distribution chain members were generally well-defined, with minimal overlap of function.

In this hierarchical distribution system:

- trading houses were essentially the entry point into the marketplace, with overseas offices (e.g., Vancouver) and English-speaking staff to handle business;
- promissory notes (Tegata) were used exclusively for trade credit, often passing through the entire distribution system, thereby giving the large trading houses both the financing and credit function as well as the supplier function;
- trading houses usually took ownership of wood;
- distribution costs were high, as each layer of distribution took a handling fee;
- the focus was on high-volume commodity sales; and
- it was difficult for Canadian companies to build direct relationships with downstream customers, many of whom were builders and construction firms that built less than 100 homes per year.

Canadian suppliers have had a limited position within the established trade and, as a result, limited influence in the sale of their products in Japan.

Over the last decade, however, major changes have occurred that have led to a crossing-over of functions between the layers of the distribution system and the development of new distribution paths. Some of these changes have occurred as new products have been introduced into Japan and some have occurred in response to the country’s “burst-bubble economy.” More and more Canadian suppliers are working toward establishing a downstream position with higher-value products.

### 3.2 Housing Industry Structure

The structure of the house building industry in Japan has been extremely fragmented. The largest 50 builders account for about 25% of house production, yet the next 150 builders account for only 5% of housing production. The number and small size of the builders (about 160,000 small carpentry and building
companies throughout Japan), and the custom nature of the market\textsuperscript{15}, have played a large role in driving the complexity of distribution.

Other factors have also impacted the structure of the distribution system. Due to high transportation costs and limited storage space at the home construction site\textsuperscript{16}, just-in-time deliveries of small mixed truck loads predominate. Therefore, quick reaction times to orders and just-in-time delivery is the norm. The distribution system has evolved to provide available inventory, quick custom manufacturing and short delivery times.

The custom requirements of the post-and-beam builders, coupled with high costs of transportation and warehousing, and increasing labour costs, have pushed the distribution system in the Japanese building industry to one of the most expensive in the industrialized world, with the highest dealer-to-customer ratio (Pesonen, 1993)\textsuperscript{17}.

Of the 1.5 million housing starts in Japan in 1995, wood-based housing starts make up approximately 46%. Wood-based starts can be divided into three sectors:

- about 555,000 are post-and-beam (83% of wood-based starts in 1995);
- 40,000 are prefabricated (6%); and
- 74,000 are 2x4 (11%) (Taylor and Widman, 1996).

Almost half of all housing starts use wood for their structural support members. Although the majority of these are post-and-beam, the market share for 2x4 (or platform construction) is increasing dramatically, as shown in figure 6.

In 1996, 2x4 housing was expected to achieve 100,000 housing starts, accounting for almost 15% of the wood house construction in Japan and over 7% of total construction. Post-and-beam construction is declining, losing market share to prefabricated housing in the late 1980s and early 1990s, and now losing market share to 2x4 housing (which uses imported softwood lumber almost exclusively).

\textsuperscript{15} The vast majority of new Japanese residential houses (over two-thirds) are custom designed and pre-sold before construction begins. In North America, over two-thirds of new residential housing is speculative construction, which is built before the sale occurs (US-Japan Housing Industry Roundtable, 1994).

\textsuperscript{16} Which is often a demolition and rebuild rather than a new development.

\textsuperscript{17} In a 1993 survey of Japanese firms involved in housing production and housing sales, the major factor (out of eighteen factors) impacting the cost differential between Japanese and foreign housing costs was distribution and delivery costs (US-Japan Housing Industry Roundtable, 1994).
Prefabricated houses, which are constructed mostly with steel superstructures, have not enjoyed any growth in annual starts during the past three years. These large prefabricated housing companies have established networks of subcontractors that supply them with building materials. Established keiretsu business relationships, inter-company stock ownership, and the fact that many of these building materials are proprietary in design, make it very difficult for a foreign company to penetrate this market. These large Japanese prefabricated home manufacturers have nationwide sales networks designed to make them less susceptible to economic slowdowns. Large marketing budgets and research and development facilities are available to develop new products and materials.

Beyond the import of logs and lumber, the housing industry in Japan has largely been sheltered from foreign competition. The Japanese Ministry of Construction estimates that housing costs in Japan are approximately twice that of North American housing, for equivalent homes constructed in similar cities -- 28.47 million yen vs. 13.95 million yen for a completed home excluding land (Nakamae, 1995).

Past government policies, coupled with a closed industry structure of vertically integrated companies connected to buying groups (keiretsu), have created barriers for entry into the domestic distribution system for finished wooden building products. In the domestic distribution system, there was no incentive for manufacturers to import building products, as any product could be made by one of their keiretsu members. Japanese homebuilders that were part of this structure were usually restricted to purchasing products from a limited selection of the distributors and wholesalers within their group (Hashimoto, 1996).

Without easy access to distribution (e.g., warehouse and shelf space), foreign suppliers (especially smaller foreign companies) have faced great difficulty in penetrating the market. Most of the early successes were based on slowly
developing relationships with some of the mid-sized members of large distribution families. They were not key players in a keiretsu but had strong distribution channels and were building linkages on a regional basis. While it often took years to develop these relationships, once established they provided relatively steady demand for building materials and products of consistent quality. Minor specification changes were frequent and the close relationship contributed to speedy response to these changes. Visits from the Japanese buyer to the North American production facility and from the producer to the customer in Japan were common. Distribution for the early successes was almost always handled by the Japanese “partner.” These were not partners in terms of joint ventures but in terms of common commitments and business relationships. Each firm gained a competitive advantage from these relationships. Recently, these advantages have become much less sustainable, in the wake of many more new entrants, increasing concern regarding costs, and the slow but continued opening of the competitive environment in Japan.

Trading houses (Sogo Shosha) have generally not been interested in the small volumes typical of imported building products, as their focus has been on high-volume commodity products. The Sogo Shosha have largely controlled access of raw material supply into Japan and were a significant barrier to directly accessing the Japanese market beyond commodity wood products.

Consequently, the import of raw materials (logs and, to a lesser degree, lumber), followed by domestic processing, continues to dominate. Japan has a large and mature wood products manufacturing and building products industry that controls the production of more finished wood products. The industry is quite concentrated, with companies like Matsushita Electric Works, Aika, Sunwave, Yamaha, Toto and Eidai dominating markets for wood flooring and wooden doors.

However, opportunities are developing for foreign companies to sell direct to builders and avoid the middle layers of distribution. The construction process for imported housing is largely distinct from domestic housing and this is allowing foreign suppliers to deal much more directly with Japanese building and construction firms, thereby bypassing conventional distribution channels. Imported housing, semi-finished and finished wood products are currently experiencing strong growth and appear to have a bright future in Japan. However, volumes are still small, which means that large percentage increases do not necessarily translate into large volume increases.

On one hand, increasing trade in lumber and building components is taking market share away from material produced from imported logs, a material of diminishing supply. On the other hand, increasing trade in semi-finished and finished wood products is taking market share away from Japanese manufacturing companies. As foreign companies capture significant market share for finished products in Japan, the struggle for business will intensify and the competitive response from Japanese suppliers should be monitored. The response from
Japanese government bureaucracies could change should Japanese companies begin to be harmed by foreign firms exporting building products into the country.

3.3 Function of Distribution

The distribution system facilitates the flow of goods and services in the Japanese market. In the imported solid wood products business in Japan, the domestic distribution system has largely served the following three key functions:

- **Financing**

  One of the main functions of the rather lengthy distribution chain has been to provide financing throughout the chain. For imported wood products, importers (dominated by trading houses) have historically assumed all trade finance risk by financing log and lumber purchases. Domestic payment is typically based on “Tegata” or promissory notes, which vary from 120 to 180 days or more and are often passed from one chain member to another. This financial system places the importer in the dominant position (Matsuyama, pers. com.).

- **Inventory control**

  Forest products have been stored/warehoused at different locations by trading houses and by national, regional and local wholesalers and distributors to ensure availability and timely delivery of supply. The high cost of land, transportation and storage makes inventory control a much more important function than is typical for a North American operation (see table 1).

<table>
<thead>
<tr>
<th>Table 1: Relative High Cost of Doing Business in Japan</th>
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<tbody>
<tr>
<td>Land cost per m²</td>
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<tr>
<td>------------------</td>
</tr>
<tr>
<td>Land Transport (300 km.)</td>
</tr>
<tr>
<td>Warehouse rental per m²</td>
</tr>
<tr>
<td>Water per m³</td>
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<tr>
<td>Electricity per kwh</td>
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- **Merchandising**

  Imported logs often need to be regraded and merchandised, whereas lumber needed to be regraded (for JAS certification), remanufactured (for custom orders), or distributed in other ways to ensure delivery of products that meet the specific needs of downstream users. For example, imperial-sized material must be resawn to appropriate metric sizes.
Other important functions have included:

- **Communication and market information**

Trading houses have had Japanese staff that can speak foreign languages and are located in the export country of origin. These employees not only bridge language and cultural barriers, but also source information on markets, inventories and price levels.

- **Customer Service**

Product distributors in Japan provide after-sales service and product support.

- **Shipping**

Trading houses have managed shipping schedules. Exchange risk management and export documentation are also functions carried out by these companies.

When bypassing domestic distribution, foreign suppliers must take on the distribution functions previously performed within the Japanese distribution system. This means the foreign supplier must initiate, maintain and directly handle all business with the customer, and deal with documentation, financing, claims and other related customer service issues. These are new and often challenging roles in a country like Japan.

### 3.4 Trading Houses (Sogo Shosha)

Trading houses have played a very significant role in the solid wood products distribution system in Japan, particularly with regard to imports. Trading houses, which have historically financed raw material imports into Japan, have profited from materials handling, taking market positions and from financing transactions. They have given foreign commodity manufacturers instant access to their keiretsu. They provided a service package that included financing, transportation arrangements, communication with suppliers and paperwork, and they also took ownership of the goods while in transit. That role is changing. Over the past few years, swings in demand and currency fluctuations have caused trading houses to suffer large losses, by virtue of their large inventory positions.

As a result, some trading houses are downsizing (e.g., Marubeni has downsized their lumber department); restructuring or shutting down operations (e.g., Nichei has shut down their Osaka branch); or moving downstream into distribution (e.g., Nichimen has opened retail and wholesale yards in Japan). Wholesalers and homebuilders are becoming more involved in the purchasing function and some are assuming shipping responsibilities (CIF and sometimes FAS purchase), thereby slowly taking on more of the trading function (Taylor, pers. com.).

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18 The domestic multi-layered distribution system has supported the expectation by Japanese customers of very high levels of after sales service from Japanese suppliers.
Finished building products, or specialty goods requiring after-sales service, have generally not been the domain of trading houses. Trading house personnel generally have poor knowledge of specialties and few can offer, or are interested in offering, comprehensive and quality service. They carry such a large variety of goods that expertise in any one area is beyond their capabilities or interest. Today, trading houses are almost forced to be opportunistic (due to recent large losses on larger purchases) and many are no longer interested in taking a speculative position (Doucette, pers. com.).

In other product areas such as minerals or oil, trading houses have integrated back towards the raw material supply and are often part-owners of the refining facilities and ships for transport. This has not occurred in the wood products sector, leaving them more vulnerable to being squeezed by changes either in supply or demand.

However, their role as financiers is increasing for many commodity items. Sogo Shosha are usually closely aligned with wholesalers that prefer trading houses to take responsibility for shipping (and related paperwork) and finance the transaction (open and close documentary credits through corresponding banks and carry the promissory note).

Although changes are occurring, the trading houses still control over 50% of log imports and approximately 50% of lumber imports into Japan (Pesonen and Cohen, 1996). It is expected they will continue their dominance of log imports, although their share of control in the area of lumber imports is likely to continue to decline\(^{19}\). Their current low involvement with the import of finished building products may change once this market grows to a sufficient size\(^{20}\).

### 3.5 Japanese Precut Plants

The rapid increase in Japanese precut plants over the last 10 years has had a significant impact on the distribution of wood products in Japan. It is now estimated that over 38% of the raw material used to construct wooden post-and-beam homes comes from precut plants. A questionnaire by an organization for the registration of builders resulted in over 55% of builders and carpenters surveyed indicating their current or planned intent to purchase precut lumber. Precut plants

\(^{19}\) It was estimated by Pesonen in 1993 that about 90% of total lumber imports into Japan were sold through trading companies. This estimate was updated by Pesonen and Cohen in 1996 to about 50%, indicating that a great deal of change has occurred.

\(^{20}\) Nissho Iwai, one of the largest importers of softwood and hardwood logs and lumber into Japan, is stepping up efforts to import housing materials from around the world. This major trading company is actively establishing representation, and developing relationships with foreign building materials suppliers, in key countries like New Zealand, US, Malaysia and China (Goto, 1995).
surveyed revealed their intent to import directly from overseas suppliers or purchase direct from domestic mills (*Japan Lumber Journal*, 1996g).

As a consequence, precut plants allow the homebuilder to source wood from other than the local distribution centres, thereby shortening the distribution chain. Continuity of both supply and distribution is ensured when precut plants are established as joint ventures between sawmillers and homebuilders. However, it is estimated that only about one-quarter of precut plants are large, highly automated plants that produce the majority of precut lumber21 (Ruttan Forbes Associates, 1995). Given that these plants tend to be part of a larger building group (keiretsu), builders outside these groups may not have easy access to this precut lumber.

The number of post-and-beam precut plants has grown from essentially zero in 1975 to 150 in 1985, 375 in 1990 and 706 at the end of 1995 (*Japan Lumber Journal*, 1997). Estimates of plants in operation today exceed 800 and, if 2x4 and prefabricated precut plants are taken into account, the number exceeds 900 (Demens, pers. com.). Recently there has been strong growth in new precut plants for 2x4 construction. The rapid growth in the number of precut plants serving the post-and-beam construction sector is due largely to two factors: declining availability of qualified carpenters and competitive pressure from the major home builders to become more cost-competitive by shortening the construction period. Precut plants are taking over the function of the old-style carpenter, reducing labour from 400 carpentry man-hours to one day in a precut factory (Lister, 1996). This mirrors the replacement of labour with technology that has already occurred in other sectors of the Japanese economy, such as electronics, automobiles, pulp and paper mills and board plants. The unique demands of the precut plants have allowed new products to be imported directly, thereby impacting the traditional distribution channels. However, there is currently only a minimal amount of traditional construction lumber product of Canadian origin going from either Canadian mills or trading houses/brokers directly to precutters. This is in direct contrast to Scandinavian supply, which is often sold direct to precutters.

### 3.6 Scandinavian Supply

Scandinavian lumber supply has been able to rapidly capture market share in Japan, moving from essentially nil in 1992 to reach approximately 1.0 million in 199622. Scandinavia has become a major player in three- and five-ply laminated posts, lamstock (for three- and five-ply posts), small-dimension lumber for prefabricated housing, genban and finger-jointed corestock for panels (*Japan Lumber Journal*, 1996).

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21 About two-thirds of Japanese precut plants have CAD/CAM systems in place.

22 Of the 832 thousand cubic metres imported from Europe in 1995, 73% or 605 thousand cubic metres came from Finland, Sweden and Norway, the bulk of the balance came from Austria and Germany (*Japan Lumber Journal*, 1996i).
Increased supply of more finished products is anticipated (Kurimitsu, pers. com).

According to the Japan Lumber Report, the major reasons for the rapid acceptance of Scandinavian lumber in Japan have been specific product advantages over traditional lumber and timing. In 1993, the Japanese prefabricated industry consumed over 700 million FBM of lumber, most of it of foreign origin but purchased through domestic distribution channels (Riddell, 1993). Scandinavian lumber was introduced at a time when prefabricated house builders had begun looking for more direct overseas sourcing. There were concerns over long-term supply from North America, and Scandinavian lumber was viewed as having the advantages of being kiln-dried (so less prone to warp), easy to process, easy to nail, and readily available in metric sizes (Japan Lumber Journal, 1996d).

It was also recognized that Scandinavians have a strong market and end-user orientation. They have made great efforts to produce a product ready for introduction down the distribution channel (e.g., lamstock to tally). According to Sumitomo Forestry23, a major importer, Scandinavians accept downstream customer requirements and do not force other products such as falldown into the marketplace. In addition, Scandinavian suppliers are perceived as providing the following benefits:

- flexibility on sizes and lengths (improving lengths by changing bucking in the woods);
- competitive pricing (prices based on markets, not target returns to company);
- technological competence (e.g., wood can be cut to order); and
- ability to ship to a predetermined schedule (if delay in shipment, there is a penalty).

Although the shipment period is long (50 days including trans-shipment), regular shipments of small volumes have become the Japanese means of ensuring a steady inventory supply; overall, it is not as great a problem as was originally envisioned for Japanese customers (Kurimitsu, pers. com.).

At present, it is believed the current maximum limit to Scandinavian imports lies at about 1.8-2.0 million cubic metres, due to species and size limitations (e.g., some species like Douglas fir are the only species used in certain applications). However with the housing market continuing its current trend of becoming less

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23 Sumitomo imports over 100 sizes and over 120,000 cubic metres from Scandinavia alone (Kurimitsu, pers. com.)
traditional, species substitution could increase the import potential of Scandinavian lumber\textsuperscript{24}.

Some of the European firms exporting to Japan are strategically committed to Japan over the long-term, due to the increasingly competitive nature of European markets. There are also other European firms dumping material, waiting for economic recovery in the EC. Only time will determine the proportion of European suppliers committed to providing long-term supply to the Japanese construction market.

3.7 The Regulatory Environment

"Building codes and standards as well as other regulations control the import and use of all imported and locally produced wood products." (Pesonen and Cohen, 1996)

There are major regulations and requirements that must be abided by companies selling into the Japanese market. They include:

\textbf{The Building Standard Law}

The Building Standard Law, enacted in 1950, sets the benchmark for basic technical standards for the design and construction industry in Japan (including fire codes). Zoning Codes and Building Codes are described in the Building Standard Law, which is under the legal umbrella of the Ministry of Construction. These codes have been a major barrier for the import of wooden building materials into Japan. It is estimated about 80\% of housing materials produced in North America do not meet code standards in Japan and consequently cannot currently be imported (JABRIS, 1996).

\textbf{Japanese Agricultural Standard (JAS)}

Most wood products are covered by individual product categories for grading purposes, outlined under JAS. JAS standards, run by the Ministry of Agriculture, Forest and Fisheries (MAFF), have become de facto requirements for Japanese buyers and government-financed construction. A number of Canadian sawmills have become JAS-certified and the Council of Forest Industries (COFI) is one of only five certified foreign testing agencies.

\textbf{Japanese Industrial Standard (JIS)}

Industrial products are covered by uniform specifications outlined under JIS. JIS are requirements under the Building Standard Law and JIS approval is required for products incorporated into government-financed construction.

\textsuperscript{24} For example, should Japanese span tables be updated to reflect the strength of second growth Douglas Fir compared to Scandinavian species such as spruce and pine, these species may be deemed acceptable.
Building Centre of Japan

The Building Centre of Japan, a body independent from the Ministry of Construction, produces product usage guidelines.

Building standards and specifications of the Government Loan Housing Corporation (GLHC)

For consumers to qualify for a GLHC loan, borrowers must submit documents that cover the building standards and specifications specified by GLHC. Both the Building Standard Law, JAS, JIS and relevant Public Notice on Technical Standards must normally be met. Given that 65.1% of homes constructed in 1994 were financed by the GLHC, policies of this organization greatly impact on the import of wooden building materials (Canadian Embassy, 1995a).

Better Living Mark standards

Certain new government regulations may provide opportunities for Canadian companies. In Hokkaido, the GLHC grants additional low-interest loans to homeowners that use materials with high insulation abilities and building products that have the Better Living Mark (Pepper, 1996). This is an opportunity for Canadian companies. The Better Living Mark can be obtained through testing, once a year, at either of the test centres in Tokyo and Osaka.

3.71 Trends in deregulation

High domestic housing costs and the strained Japan/U.S. trade relationship has led to the implementation of Japanese government initiatives aimed at relaxing the regulatory environment.

Negotiations between Japanese and U.S. trade representatives resulted in measures aimed at reducing the cost of housing in Japan. To this end, the Ministry of Construction released “An Action Program for the Reduction of Housing Construction Costs” in March of 1994. This five-year deregulation plan has as its stated objective to reduce construction costs by 30% over a three- to five-year period. Current residential construction costs per unit area in Japan are about twice those of Canada and the United States for the same quality of construction. Relevant recommendations include:

- rationalization of distribution through deregulation and better inventory controls;
- harmonization of building codes and standards with international norms;
- an increase in the import of building materials and manufactured houses;
- promotion of the use of imported building materials and housing; and
- promotion of projects that facilitate reduced housing construction costs (Ministry of Construction, 1994).

The efforts of the Ministry of Construction to reduce housing costs have intensified. In March of 1996, additional measures were announced in an
“Emergency Priority Program for reducing Housing Construction Cost” (Ministry of Construction, 1996). Further measures are being taken to promote deregulation, by reviewing the building regulation system with the goal of harmonizing with international standards\textsuperscript{25}.

The Ministry of Construction is also reviewing the Building Standard Law to determine revisions that would move away from the existing descriptive standards to performance-based standards. This would reduce some of the barriers to entry and potentially give certain imported products better access to downstream distribution. Regrading of wood products for JAS would not need to be done by the distribution system in Japan. This should also increase both the adaptation of imported new technology and new products. Moving to a performance-based building code will have a profound impact on research, development, testing, product development and marketing for building product imports to Japan over the next decade.

Another factor impacting the deregulation process is use of Section 38 of the Building Standard Law by the Japanese to prove that codes and standards do not create non-tariff barriers. Section 38 allows wood products to be exempted from requiring a JAS stamp if it meets two criteria:

- technical approval from a recognized testing facility or university; and
- Japanese government review of the existing technical information.

However, meeting both criteria can be a slow and expensive process.

The following are specific deregulation measures that could impact distribution:

- the Ministry of Construction has officially recognized the grade rule of the National Lumber Grading Authority’s (NLGA) for both COFI-affiliated grading services and the Canadian Lumber Standards Accreditation Board (CLSAB) members. Consequently, virtually all lumber mills in Canada can ship construction-grade lumber to Japan without regrading in Japan to JAS;

\textsuperscript{25} Deregulation commitments were made by politically appointed Japanese trade representatives and in the case of the Action Program, these commitments did not have the full support of several influential Ministries in Japan. MITI (an extremely powerful ministry in Japan), has yet to support the initiative to lower housing costs by increasing foreign competition. Consequently, change will occur but likely at a slower pace than the bilateral trade representatives had expected (Pesonen and Cohen, 1996).
• recognition of National Lumber Grading Authority’s (NLGA) special products standard for machine stress-rated (MSR) lumber as equivalent to JAS 702 as of July 1, 1996. Without the required regrading to Japanese standards (a current function of distribution), MSR-graded NLGA lumber can bypass this function of distribution (Japan Lumber Journal, 1996h);

• The Government Loan Housing Corporation (GLHC) has included the NLGA standards into their specification manual. Products listed in this manual can be financed through government loans, reducing the need to finance imported purchases through the long and complex distribution chain (Japan Lumber Journal, 1996h);

• Granting of Foreign Testing Organization status to ULC of Toronto in December of 1995 to conduct fire testing of Canadian products to Japanese standards. Canadian companies now have a Canadian organization to achieve certification, and this should lower costs and facilitate increased speed of market access of certain building products;

• Approval of three-storey wooden apartment construction in non-fire zones; and

• The Uruguay Round of 1994 resulted in the phased-in reduction or even elimination of Japan’s tariffs on imported wood products (includes such products as softwood lumber, doors, windows, wood mouldings, plywood and particleboard). This should make Canadian products even more competitive with domestically manufactured products.
4.0 FINANCIAL AND CULTURAL ENVIRONMENT: IMPACT ON DISTRIBUTION

4.1 Trends and implications

4.11 Currency

The increase in the value of the Japanese yen relative to the Canadian and U.S. dollars has made North American solid wood products much more competitive with domestic products. From the Japanese perspective, imported wood and building materials have become less expensive during the past 10 years, due to an appreciating yen (see figure 7). This trend has reversed itself during 1996/97 and the yen is now depreciating against both the Canadian and U.S. dollars. Canadian currency is gaining strength against both the yen and the U.S. dollar, making our exports more expensive in Japan. Currency exchange rates and the rapid devaluation of the Swedish krona and the Finnish markka are key factors that helped open the door to Japan for Scandinavian wood products.

Figure 7: Currency Exchange Rates (Source: COFI, 1996)

Currently, despite the recent appreciation of the yen, there are significant cost benefits for small- and medium-sized builders to purchase Canadian imported products. However, further change in currency relationships could erode this benefit and have a serious effect on trade in the long-term.
4.12 Trade Finance

“I think that financing is one of the issues that maintains the image of the complex distribution group and why it is difficult to do direct business.” (Powles 1995)

In the Japanese domestic market, only large companies have historically had access to financing through normal banking channels. Non-bank institutions exist but offer a more expensive and more difficult route for the small- to medium-sized enterprise in Japan, not unlike mid-sized Canadian business’s expensive access to trade finance services. For imported products, the trading house has taken on the financing role and has offered financing in the form of “Tegata” or promissory notes.

Tegata are financial instruments that extend financing from the trading house right through to the builder. Large wholesalers or sawmills purchase lumber from trading houses with typical terms of 120 to 180 days. The first-level wholesalers will then resell this lumber to second-level wholesalers on terms of 30% cash payment with the balance due in 60 to 120 days. The second-level wholesaler then extends financing to retailers on terms of partial cash payment with the balance due in 30 to 60 days. Retailers then sell building materials to local builders with terms of 60 to 120 days. Although this system of trade finance allowed small- and medium-sized firms in Japan to offload inventory and financial risk to material suppliers, it also put these firms in a weak position to negotiate prices and limited their ability to choose products to purchase.

A number of changes in the Japanese banking system hold implications for distribution. Until recently, the Bank of Tokyo dominated access to U.S.-dollar transactions. Only significant players (like trading houses) had direct access to the Bank of Tokyo, thus limiting the ability of downstream distribution chain members to access foreign suppliers directly. However, banking regulations and conditions have changed in Japan such that today almost all banks in Japan handle U.S. dollars. This is significant in that U.S. dollars are the currency of trade in wood products into Japan. With the increased availability of U.S. dollars, more Japanese companies can finance foreign imports.

Improved access to trade finance for large wholesalers has increased their ability to finance imports on their own, diminishing the role of trading houses. Current interest rates are low (prime rate is 0.5%), and this gives healthy wholesalers with equity (e.g., land) easy access to trade credit. However, should interest rates rise, wholesalers involved in financing may be put in a difficult situation. Inventory carrying costs could seriously erode their margins.

With greater access to bank financing, wholesalers now have the choice of having either a trading house or a bank assume their credit position. This had made it easier for downstream distribution to purchase more directly (Laven, pers. com). With financing increasingly easy, many wholesalers are deciding to take on this function (by establishing a letter of credit with banks) in order to avoid the trading houses (Kurimitsu, pers. com.). This will allow independence from the dominant
members of the complex distribution chain for wholesalers and larger homebuilders.

Financing of new homes is impacted by government regulations like the “Better Living Mark,” as government financing, through the Government Loan Housing Corporation sets loan eligibility standards for building products.

The housing market in Japan is predominately custom-order, rather than speculative, as it is for the most part in North America. To finance construction, small builders rely heavily on customer advances and supplier financing as small builders still have difficulty obtaining operating loans and builders mortgages from banks.

Upon receiving a house order, the builder typically receives a 33% deposit from the customer. Once the roof is on, they receive another 33% and, when the house is completed, they receive the balance (Yamamoto, pers. com.)\(^{26}\). It was not unusual for a builder to take up to 270 days to pay for purchased building products, thus using the distribution chain as their financing arm. This tradition has ensured that builders could not bypass lengthy and expensive distribution channels without losing their source of operating capital. However, new loans provided by the Export-Import Bank of Japan may make it easier for Japanese builders to purchase imports of building products (Imported Housing Promotion Council, 1994).

Recently, many prefectures (which are similar to provincial governments) have also instituted financing programs to provide loans directly to the builder. This frees the builder from purchasing all materials through the complex distribution channel in order to obtain financing. This has increased builders’ ability to buy direct from exporters (Matsuyama, pers. com.). However, this practice is not yet widespread and is still somewhat cumbersome (Yamamoto, pers. com.), but does provide opportunities for Canadian exporters to bypass normal channels and sell directly to builders\(^ {27}\).

When dealing with small- to medium-sized Japanese building firms, Canadian companies may need to be flexible on payment terms (these firms may have difficulty with standard 50% up front payment terms) (Pepper, 1996). It has been estimated that up to 70% of Japanese construction firms have four or fewer employees, thereby lacking the specialized knowledge or depth of management required to successfully undertake overseas purchasing (Jetro, 1996d).

\(^{26}\) However, verification of completion, which is a requirement following construction, can delay final payment considerably.

\(^{27}\) As in the case of Merit Kitchens.
4.13 Sales Tax
In the spring of 1997, the consumption (or sales) tax in Japan will increase from 3% to 5%. This will apply to all materials that go into house construction. In the short-term, this has led to an increase in housing starts during the last two quarters of 1996 and expected to continue through the first quarter of 1997. This will be followed by two to four quarters of decreased housing starts to compensate for those who moved their purchase date ahead to avoid paying the additional sales tax. In the long-term, this tax increase will make it even more difficult to decrease the cost of housing in Japan.

4.2 Cultural trends and implications
Consumer demographics in Japan are shifting.

*Japan is divided: the older people want more of the same life, but many of the younger generation have been outside Japan, and have seen how people in other rich countries live. They know things aren’t what they should be here.*” (Schlender, 1993)

Although parents are often still involved in the buying decision, the purchasers of detached homes in Japan are getting younger. Many Japanese in their 30s have been exposed to western culture through travel, North American television and business. Having experienced the spaciousness, quality and lower cost of western housing, these Japanese consumers are driving change in consumer patterns by demanding cheaper and better-quality housing28. Since 1993, the media in Japan has focused on the cost differential between Japanese and North American housing, further stimulating consumer interest in western housing and building products29.

Whether or not this demand can be satisfied by imports is a current topic of discussion in Japan. The largest homebuilder in the world, Sekisui House, believes that a lack of understanding of Japanese culture will impede large-scale penetration of the Japanese market by foreign house manufacturers (Inform Age, 1995). However, the customer base for traditional products is shrinking, implying that an understanding of traditional culture will not be as important as it once

28 A 1993 Residential Housing Demand Survey outlined that almost 50% of consumers were dissatisfied with their housing conditions. Complaints did not focus on house size or lot size but instead focused on the functional aspects of housing such as storage space, noise insulation, kitchen arrangement and finishing materials (Jetro, 1995).

29 In a survey of consumers by the Tokyu Dwelling and Life Research Institute Inc., the younger the consumer, the greater the interest in imported housing, with the greatest interest in the 20 to 34 years old age group (Imported Housing Industries Organization, 1996)
was\textsuperscript{30}. Today, it is often difficult from the street to tell the difference between a 2x4 and a post-and-beam home.

Historically, only the trading houses have had English-language communication skills. This has made it difficult for smaller firms in Japan to connect with foreign suppliers. Since communication problems are decreasing -- more and more Japanese people speak English and many Canadian companies have Japanese-speaking staff -- business relationships are being developed faster, making it easier for more direct business to occur\textsuperscript{31}.

4.3 Impacts of the Great Hanshin Earthquake (Kobe)

The Great Hanshin earthquake of 1995 is developing into a turning point for post-and-beam construction and imported housing.

It is widely recognized in Japan that older post-and-beam housing did not fare well in the Great Hanshin earthquake. This was primarily due to lack of cross-bracing. Canadian 2x4 housing performed well: only two of the 8,948 2x4 homes in Kobe suffered serious damage as a consequence of the earthquake (Goto, 1996). This market awareness will assist Canada’s efforts to promote manufactured housing and building products into Japan (Canadian Embassy, 1995a).

As a result of the Great Hanshin earthquake, there is considerable pressure to improve the traditional Japanese post-and-beam building system, and also an increased willingness to adopt new products and ideas. Engineered wood products are well-positioned to fill the demand for new construction products that can improve post-and-beam building systems. In particular, improving the performance of components and connections is a major opportunity area for engineered wood products.

This earthquake was also the catalyst in getting the Japanese bureaucracy to consider importing manufactured homes as a solution to deal with large numbers of homeless families. Numerous factors prevented this from occurring quickly but, once they began looking at imported manufactured homes, the bureaucracy recognized other benefits such as controlling public housing costs and creating physical models of alternative, low-cost housing.

\textsuperscript{30}This is evidenced by the on-going trend to less traditional rooms being built in Japanese homes.

\textsuperscript{31}For example, some Japanese wholesalers having English language skills are setting-up small offices in Vancouver to buy lumber direct (Laven, pers. com).
5.0 **DISTRIBUTION FOR LUMBER**

5.1 **Imported traditional Japanese construction lumber**

Traditional Japanese construction lumber is comprised of products such as *hashira, moya, neda, sujikai, mabashira* and *hirakaku*. These products are the main structural components in traditional post-and-beam homes. Coastal British Columbia has become a major supplier of these traditional products in hemlock and Douglas fir and has about a 30% share of the Japanese “post” market (Powles, 1993). Interior B.C. mills producing SPF are making inroads into supplying both the smaller structural sizes and supplying Genban for remanufacture into smaller structural sizes.

**Figure 8: Imports of lumber from Canada (Source: Statistics Canada, 1996)**

The current distribution system for imported traditional Japanese construction lumber is outlined in figure 9.
5.11 Trends and implications

Role of trading houses changing

As recently as five years ago, it was estimated that 90% of all imported lumber was controlled by the trading houses. However, the role of trading houses has changed: today it is estimated that less than 50% of lumber imports into Japan are controlled by these same trading houses (Pesonen and Cohen, 1996). Trading houses are positioning themselves to play more of a financing role and less of an ownership role. This change has been influenced by trading houses getting caught in market downturns and erratic currency movements, resulting in large losses.

Some trading houses are also assuming new roles:

- Nichimen formed Nichimen Shonan in 1992 and has become a leading company in the imported house industry, selling a U.S.-designed home called the “Placid” (Japan Lumber Journal, 1995b);

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32 MacMillan Bloedel, a major player in the production of traditional Japanese construction lumber and having Japanese offices and sales staff, has had sales decline from over 70% to trading houses 10 years ago to less than 50% sales to trading houses today, with the balance of sales to MacMillan Bloedel’s own Japanese based operations.
• Itochu formed Everson McCoy Homes Inc. and sells North American-style homes into Japan;
• Mitsubishi and Okura are opening their own housing companies;
• Nichimen, Mitsubishi and Marubeni have been forced to get into distribution due to the bankruptcy of wholesalers largely supported by these trading companies (Bonderud, pers. com.); and
• Other trading houses are assuming more of a global information-gathering role.

Although trading houses will still play a key role in trade, more downstream business to first- and second-level wholesalers will occur, resulting in a decline in the relative role of trading houses in the distribution channel for traditional Japanese construction lumber.

New entrants and new distribution channels
The significant increase in the price of North American supply in traditional Japanese construction lumber over the past few years in domestic Japanese currency, combined with volatile prices, uncertainty over long-term supply and aggressive market promotion by new entrants, has encouraged the Japanese into diversifying their sources of supply to include Scandinavia, Europe and New Zealand. In addition, easier access to financing has allowed smaller specialized trading houses, wholesalers, sawmills, and building companies to enter the import business.

New products, like engineered wood products and Scandinavian lamstock supply, are suitable for direct consumption by downstream customers without remanufacturing and with little falldown (correct quality, size and tally). This has impacted Japanese distribution channels because these products have been able to bypass several layers of distribution and have thereby upset the traditional system of distribution. This has opened the door to further increases in direct sales to downstream customers of suitable Canadian wood products.\footnote{Lamstock and laminated posts are good examples.}

Industry rationalization and crossover of downstream functions
Rationalization has occurred in the traditional post-and-beam construction sector as large construction companies continue to increase their market share\footnote{Since the earthquake, the larger builders have become more dominant which is having an impact on distribution (Matsuyama, pers. com.).}. With the increase in factory-built homes, larger direct purchases of more finished products are occurring, thereby decreasing the role and position traditionally held by wholesalers. As a consequence, the volume of construction materials that are distributed to carpenters and small builders has declined, which has caused the
number of traditional wholesalers to decline. A 1992 survey by Japan’s Ministry of Agriculture, Forestry and Fisheries showed that the number of wood wholesalers declined from the peak of 4,887 in 1984 to 4,693 in 1991; the number of wood retailers declined concurrently from 13,300 to 10,900. Indications from a variety of sources indicate this trend has continued. As a way to try to maintain their business, wholesalers are starting up retail operations, importing directly, entering home building and starting to use or even build precut plants, especially in western Japan. These factors are causing a crossover of functions between large construction companies, precut plants, and first- and second-level wholesalers, with each moving the other’s business. For example, Emachu, a large first-level lumber wholesaler, has also become a land company, has built warehouses, and now handles building products. Some of the wholesalers that expanded into precut plants are now branching out into carrying non-structural products, in an attempt to sell the building materials for complete houses (Bonderud, pers. com.)

Many retail lumber distribution centres are now carrying precut lumber, housing materials, and other items beyond traditional lumber, thereby evolving into general home sales outlets.

This crossover of function, coupled with rationalization in the industry, is changing distribution patterns. Larger, better-financed construction companies and homebuilders have a greater ability to demand more standardized products and purchase larger volumes directly from offshore suppliers.

**Downstream demand changing**

Instead of purchasing raw material, downstream Japanese customers (e.g., second-level wholesalers, precut plants, overlayers), want to purchase a more finished product that is easy to incorporate into their production, complements their product line, is easy to resell, has less reject and minimal after-sales service requirements (Demens, pers. com.). End users are becoming less traditional and more price-sensitive. As a result, substitution is becoming easier, especially as more products that better meet market requirements become available. The increased requirement for house stability since the Kobe earthquake has increased the demand for kiln-dried and laminated posts (hashira), kiln-dried studs (mabashira) and kiln-dried floor joists (neda) for traditional homes. This in turn has increased the demand for kiln-dried SPF lumber and decreased the demand for green hemlock. SPF is now used for general genban material and is remanufactured to smaller sizes in Japan. Some Japanese builders are even using 2x4’s to replace hemlock mabashira in the construction of hybrid traditional homes often called post-and-stud houses.

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35 Personal communication with Bonderud, Demens, Kurimitsu, and Matsuyama.
Large builders reducing costs

National post-and-beam builders in Japan are emulating the large Japanese prefabricated builders by establishing national sales forces and implementing factory production techniques for improved quality and decreased costs.

Larger housing companies (e.g., Mitsui, Sumitomo, Sekisui) are tightening relationships with small precut plants, making it almost impossible for them to sell to others. Contractually, these precut plants must deliver on time or be fined. They are often connected electronically to the buyer, sharing databases and inventory control systems.

The larger housing companies also have the financial ability and market presence to purchase large volumes directly, demand more standardized products, source material globally and form joint ventures. Consequently, larger builders frequently circumvent traditional distribution of the trading houses and wholesalers (Doucette, pers. com.).

Small builders expanding supplier network

As recently as five years ago, small builders bought everything through traditional channels, (e.g., from retailers and wholesale distributors). However, they are now increasingly anxious to find ways to improve their competitiveness and bring down their costs (Pepper, 1996). According to Yano Research Institute, “The old arrangement in which wholesalers supplied the materials and builders did the construction is crumbling” (Yano Research Institute, 1995). Where builders had historically purchased essentially all requirements from the retailer or wholesale distribution centre, many small builders are now taking house plans directly to precut plants. However, they must still maintain a good relationship with the retailer, as they need to buy non-structural components from them. In order to satisfy minimum purchase requirements, small builders are teaming together to form “buying consortia,” often sponsored by a precutter, manufacturer or industry association (Price, pers. com.).

5.2 Imported shop and better lumber

Most of the shop and better lumber imported from Canada is comprised of hemlock (hem-fir), Douglas fir, spruce, and western red cedar in the form of solid wood (green) flitches, kiln-dried clear boards, kiln dried clear components, and custom-cut (green) lumber. This imported raw material is largely remanufactured

36 For example Misawa homes have announced that due to the increased price of wood from North America, they plan to increase their imports from Europe to 70% of their requirements within two years. Misawa plans to invest US $3.5 million to expand production to 60,000 cubic metres of their subsidiary in Finland (Canadian Embassy, 1997).
in Japan to produce solid wood interior finishing components (e.g., doors, wooden sliding doors (shoji), windows, flooring, moulding, stairs, closets, etc.). The Japanese market has historically supported price premiums for this old-growth and clear lumber.

The total Japanese market for interior finishing components has been estimated at 283.7 billion yen (US$2.8 billion or Cdn$3.8 billion) for 1994. Of this total market, 94% was manufactured domestically; imported finished products accounted for only 6%, or 17.5 billion yen (Schaffer 1996). However, a large percentage of the raw material for finishing components is imported 37.

The domestic production for interior finishing components can be divided into two market segments:

- large manufacturers of modern interior finishing components; and,
- small-scale joinery firms using solid wood to produce traditional interior finishing products.

The large manufacturers generally do not have a solid wood products background and produce interior components that are primarily composite-based. The small-scale firms primarily utilize solid wood to produce custom products for the house building industry 38. British Columbian coastal species, particularly clear hemlock, has been popular with these small joinery firms for doors, door frames, sills, internal walls in apartments, traditional interior fittings, closet components, sash, corestock, mouldings and stairs. However, the small-scale Japanese remanufacturing sector is under siege from these larger manufacturers and, due to a number of factors, their market share continues to decline. The typical distribution channels for imported shop and better lumber are shown in figure 10.

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37 Imported Canadian shop and better material is one raw material, others include high grade tropical hardwoods, temperate hardwoods and exotic Asian species.

38 For example, supplying entrance hall closets and shoe holders on order to individual carpenters and homebuilders.
5.21 Trends and implications

Wholesale trade still dominates

Canadian shop and better lumber predominately flows from trading companies, importers\(^{39}\) and wholesalers to remanufacturers and distribution centres. Most of the Japanese joinery firms and laminators that use Canadian shop and better lumber are small in size and still rely on local wholesalers for their supply. Wholesalers in turn rely on trading companies and importers for their supply. It is still rare for a downstream customer, such as a small joinery firm or laminator, to take on the risks of importing directly\(^{40}\).

Demand for solid wood is changing

Westernization of Japanese homes is occurring. The traditional Japanese-style (Tatami) room requires solid wood interior fittings, although it is common today

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\(^{39}\) MacMillan Bloedel’s Japanese operations could be considered an importer/wholesaler, as they carry inventory and sell to downstream customers using promissory notes.

\(^{40}\) It is difficult for these smaller firms to justify taking on the risks of exchange rates, shipping, and financing.
for new homes to have only one Tatami room\textsuperscript{41}. The trend is for less and less exposed clear finished wood in new Japanese homes. For example, demand for fusuma (sliding doors) and shoji (paper sliding screens) has been declining with the increase in western-style rooms in Japanese homes.

Solid wood is still the preferred finishing product according to a recent survey of Japanese consumers (Schaffer, 1996). However, solid wood interior components have come to be considered a prestige product. The volume of high-quality, clear logs and lumber (suitable for high-quality joinery applications) from the Pacific Northwest and Western Canada is declining, making this raw material source a relatively higher-priced alternative. Consequently, as the pressure for lower-cost housing increases, the use of solid wood will continue to decrease and the use of reconstituted wood products and substitutes will increase (Pesonen and Cohen, 1996).

There has been a rise in the use of wood-based substitutes and in the acceptance of veneers. As “imitation wood” (wood cores with paper and vinyl overlays, imitating the grain and colour of wood) improves in quality, it becomes more difficult for the layperson to differentiate it from real wood, thereby increasing its acceptance with consumers. However, core-laminated with wood veneer is still a favoured substitute for solid wood.

The use of laminated veneer lumber (LVL), rubberwood, and medium-density fibreboard (MDF) with vinyl or paper overlays is steadily replacing solid wood (Demens, pers. com.). As a consequence of these trends, there has been a reduced demand for clear solid wood products, as evidenced by the stable yen-per-cubic-metre pricing of hemlock 6x6/wider high-grade clear flitches from 1993 to 1996\textsuperscript{42}, during a period of reduced supply from coastal B.C.

Despite this, an increasing concern over the environment within the house (the healthy house) and soon-to-be-introduced restrictions on formaldehyde emissions will ensure a place for solid wood finishes, but with a potentially smaller market share\textsuperscript{43}.

\textsuperscript{41} Some major house builders (Diawa House) are starting to offer homes without any solid wood interior fittings in Tatami rooms (Seki, pers. com.).

\textsuperscript{42} According to the pricing information listed in the \textit{Japan Lumber Journal} between 1993 and 1996, the wholesale price of BC Coastal Hemlock 6x6/Wider high grade clear flitches in Keihin Ports has averaged approximately 110,000 Yen per cubic metre and has rarely moved more than 10\% up or down from this level. Similar stable pricing has also been experienced by Douglas Fir 10x10/Wider high grade clear flitches in Keihin Ports.

\textsuperscript{43} The “Healthy House Study Council” was formed in July of 1996 by the Japanese Government to study volatile organic compounds such as formaldehyde and to create standards for indoor air pollution (Canadian Embassy, 1996a).
Increased competition

Increased competition

Imported shop and better lumber is also facing competition from traditionally “lesser-known” species (radiata pine, rubberwood, etc.) that are gaining market acceptance. There are also increasing imports of core material (edge-glued panels) from North America, Chile and Southeast Asia. As more standard and fewer custom products become the norm, the market will become less fragmented: more direct and global sourcing of more finished products will result.

Downstream customers in Japan are demanding more finished products as they seek to minimize high in-house processing, inventory, and labour cost requirements (Mori, pers. com.). Consequently, imported shop and better lumber is subject to decreasing demand over the longer-term unless manufacturers produce a more finished solid wood product that can be shipped to order.

The auction market, which has been a critical link in the distribution chain of high-value (clear-grade) domestic Japanese timber, has in recent years experienced sales difficulties. This has led to a reduction in the number of small domestic sawmillers that supply these auction markets. These small sawmillers produce custom products that require labour-intensive practices and result in high-cost production. This is in contrast to the large homebuilders in prefabricated, traditional and 2x4 construction that prefer to buy larger volumes of standardized interior fittings. Catalogue buying for standardized interior fittings is also becoming popular. With this standardization, production is moving to factory assembly, and away from the small “mom and pop” operations that resaw Canadian high-grade flitches.44

Japanese manufacturers are pursuing a “cost-down strategy,” reducing material costs and after-sales service requirements. As homebuilders get larger, and product standardization occurs, the historical level of distribution required to deliver small volumes of custom interior finishings to small end users is no longer needed. Economies of scale for distribution can be realized.

Opportunity to migrate up the value-added chain

The market for supplying Canadian shop and better raw material to Japan is declining. However, there is an opportunity for Canadian manufacturers of shop and better products to bypass distribution by integrating their manufacturing forward to produce more finished products like decorative components. A number of North American remanufacturers have moved in this direction but the imported products are usually still in what the Japanese marketplace considers a

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44 Although they are still supported by the small custom builder, the number of small “mom & pop” remanufacturers is declining.
Entry into the marketplace at this stage is possible but sometimes difficult, because Japanese remanufacturers must then incorporate a partly finished product into their production lines and must still capture a positive contribution. To be able to penetrate downstream customers, foreign manufacturers of shop and better products will need to migrate up the value-added chain and offer products suitable for integration into the production process of larger joinery firms or to be purchased directly by homebuilders and retailers. For example, Canadian companies could supply hemlock and sitka spruce veneer overlaid door and window frames in standard sizes to the builders of high-rise concrete mansion apartment blocks, or veneer overlaid laminated upright posts to homebuilders (Willson, 1995). However, the sizes, requirements and volumes will make it difficult for companies in Canada to compete. The other problem is that many of the decorative products are no longer solid wood and have particleboard, MDF and laminated cores. Canadian suppliers of shop and better lumber will need to move up the value chain or continue to lose market share to substitute finished products.

5.3 Imported Dimension Lumber (2x4)

Imports of 2x4 lumber into Japan have grown significantly in recent years (see figure 12). Demand has been driven by increased 2x4 housing starts and the use of dimension lumber in other applications. Starts of 2x4 homes rose over 20% from 1994 to 1995, to 79,000 units. A 1995 survey of 122 construction firms by the Japan 2x4 Homebuilders Association predicts that the target of 100,000 homes will easily be achieved in 1998, two years ahead of the Ministry of Construction’s target (Goto, 1996). Recent housing start figures indicate the 100,000 homes milestone has been reached in 1996.

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45 Which must still go through the veneer overlay, superfinishing and/or moulding, shrinkwrap stage in Japan.

46 Purchasers of semi-finished products must also support significant import tariffs, whereas tariffs for finished products are usually much lower (Willson, 1995)

47 Some post-and-beam builders have started to use Douglas Fir dimension lumber (2x10) as joists in post-and-beam homes.
British Columbia supplies most of the Canadian lumber exported to Japan (over 90%) and accounts for more than 60% of all imported softwood lumber in Japan. In 2x4 construction, B.C. supplies more than 80% of the imported lumber used to build these types of houses. This dominant market share position makes it the target for all existing and new competitors. It seems unlikely the Japanese domestic sawmilling industry will develop significant production capacity in North American dimensional sizes (Taylor and Widman, 1996). The typical distribution channel for imported dimension lumber is shown in figure 12.
5.31 Trends and implications

Distribution infrastructure slow to develop

The infrastructure to supply lumber to small builders and to train them in 2x4 building technology was slow to develop, despite strong efforts from the Council of Forest Industries and the Canadian federal and provincial governments (Graham, pers. com.). The slow acceptance of traditional distribution channels to imported dimension lumber actually resulted in more direct distribution. This limited access to supply for small builders had a major negative impact on the early acceptance of 2x4 construction. Today, better distribution channels have developed and access is continually being improved. Large Japanese 2x4 builders (e.g., Mitsui Homes) have avoided this problem by purchasing directly from Canadian sawmills.

Strong growth in demand from small builders

As more small builders are building 2x4-style homes, a specialized distribution system in dimension lumber is rapidly evolving in order to service the increased demand from these smaller Japanese builders. Several major B.C. forest companies (e.g., Weldwood, Slocan, Weyerhaeuser) have started to increase sales to downstream customers, direct to builders and 2x4 precut plants. More and more B.C. firms are establishing sales offices in Japan and targeting customers outside of the Tokyo-Yokohama area. Good builders will often carry stock or provide space for storage (Speiss, pers. com.). For those builders not ready to deal direct and not interested in carrying inventory, intermediaries are making JIT delivery available. As 2x4 construction continues to grow, so will the diversity of supply systems to satisfy the increasing variety of builders using this construction method.

New product opportunities

Several Canadian firms are in various stages in initiating custom facilities that use dimension lumber to produce either lamstock or laminated posts. These initiatives are in their early stages and, while significant volumes are not yet exported to Japan, these producers should experience dramatic growth in the next few years. In addition, opportunities exist to supply small- and medium-sized 2x4 builders with finished wall panel components that make assembly on site easier and require less expertise.

48 For example, MacMillan Bloedel carries stock in Japan and sales have increased from negligible volumes to 40 million FBM in just 2 years to service these small users (Bonderud, pers. com.).
Precut plants gaining importance

Although North American carpenters are in widespread use in the construction of 2x4 homes in Japan, the shortage of skilled labour remains a problem\(^{49}\). Obtaining work visas has historically been difficult, although new government regulations concerning site supervisors should assist foreign carpenters in this area\(^{50}\). Companies like Mitsui Home Co. and Taihei Jutaku Co., both large 2x4 homebuilders, are building automated factories to precut lumber and build panels. New independent 2x4 precut plants could become important distribution members for components of traditional post-and-beam houses, should they develop to supply small- and medium-sized builders.

Building code changes

Recently the National Lumber Grading Authority (NLGA) Codes were accepted to allow the use of their wood in 2x4 construction in Japan. This means wood will not have to be regraded to JAS, one of the tasks currently undertaken by large trading houses and distributors. This should make it much easier to bypass some of the first members of the distribution chain, thereby shortening the chain and reducing costs to the final purchaser. Currently, the largest builders purchase much of their wood directly. With the acceptance of NLGA codes, this pattern of distribution can now be used for medium-sized builders (Matsuyama, pers. com.).

Future new entrants

Scandinavian genban imports (essentially J-grade material) are increasing, and a number of Scandinavian and Austrian sawmills have recently received approval to export dimension lumber to the United States\(^{51}\). This makes imports of dimension lumber from Scandinavia to Japan quite possible in the near future, and is likely given that harvest levels in both Sweden, Norway and Finland are 20%-50% below annual growth increments, resulting in a good potential for increases in lumber production (Wilson, pers. com.). Other countries, like Chile and New Zealand, could follow this lead and produce dimension lumber from plantation-grown radiata pine logs. This makes it important for Canadian producers to solidify their position in the market and ensure they are correctly positioned in the distribution chain.

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\(^{49}\) The number of carpenters in Japan has decreased from 936,703 in 1980 to 775,500 in 1995 (Canadian Embassy, 1996b)

\(^{50}\) The Japanese government announced in March of 1996 that new applications for Certificates of Eligibility for Foreign Workers will be expedited and issued within three weeks from the application date.

\(^{51}\) North American grade stamp approval received.
6.0 DISTRIBUTION FOR MORE FINISHED WOOD PRODUCTS

6.1 Imported Engineered Wood Products

Engineered wood products are of growing interest in Japan. The Great Hanshin Earthquake shifted demand upward, with usage focusing on improving the safety of traditional post-and-beam homes. In addition, factors such as the reduction in claims (from warped lumber in interior walls), reduced waste, and improved efficiencies in precut plants (increased production and increased quality) have also boosted demand for engineered wood products.

Growth in imports of engineered wood products from North America has been increasing (see figure 13). Acceptance is increasing to the point where even traditional species such as Japanese red cedar and Japanese cypress, the historical standards for post-and-beam homes, are being replaced by engineered wood (Japan Lumber Journal, 1996a).

Figure 13: Imports of Engineered Wood Products (Source: Japan Lumber Journal)

There has been strong growth in the import and production of laminated lumber, with increases averaging 20%–40% per year. Laminated connective posts, even

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52 Laminated 5 ply posts are not only stronger in compression (laminated posts can withstand 3.3-3.5 tons verses solid wood posts which can withstand 2-2.5 tons) but also stronger in horizontal shake (laminated posts are 50% stronger) (Japan Lumber Journal, 1996b).
though they are more expensive, have been recognized to be cost-effective substitute products given their advantages over solid wood. (Japan Lumber Journal, 1996b). More growth in laminated lumber is possible in that this product group currently makes up only 2.5% of the structural lumber used in post-and-beam construction, with estimates of potential usage at about 10% (Schaffer, 1996).

In 1995 there was 582,000 cubic metres of laminated lumber produced in Japan, predominantly from imported raw materials. Although only about a third of this was for structural purposes, the balance for non-structural purposes, growth was driven by structural products, with imports in 1995 of 147,500 cubic metres (Japan Lumber Journal, 1996c). An example of a new applications for laminated lumber would be Mitsui Homes’ usage of large cross-sectional laminated Douglas fir lumber for the fronts of buildings for which durable walls cannot be built.

Glulam has also had remarkable growth, starting from a level of 3,000 cubic metres in 1988 and reaching almost 99,000 cubic metres in 1995. Reductions in import tariffs and increased JAS authorization in foreign production facilities have significantly increased import volumes of glulam products.

The U.S. dominates LVL imports into Japan, although exports from Sweden and Canada have grown dramatically. In addition, recently opened Japanese LVL production facilities in New Zealand have had a significant impact on the growth in imports (Jetro, 1996b). Overall, imports account for 18% of market share for LVL consumption. Demand for this product in Japan can be segmented as follows: interior finishing carpentry materials such as doors and panel cores (70%), and housing construction materials such as beams, columns and girders (30%) (Jetro, 1996b).

In the first six months of 1996, the use of MDF increased to 408,000 cubic metres from 311,000 cubic metres in 1995, with imports accounting for over 36% of market share. New Zealand and Chile have dominant import market share positions. MDF demand in Japan can be segmented as follows: finishing carpentry materials such as doors (30%), furniture (30%), housing components such as kitchens (20%), and the balance for other products (Jetro, 1996b).

The overall use of softwood plywood is increasing in Japan, with domestic production decreasing and imported plywood increasing. Softwood plywood is used for packaging and sheathing, particularly for 2x4 housing. Imported plywood supplied 52% of overall Japanese plywood used in 1996, and this number is expected to increase as the supply of imported logs continues to decline (Japan Lumber Report, 1996b). Canadian plywood, produced almost entirely in British Columbia, accounts for over 75% of all softwood plywood imports into Japan. There was an increase of 29% in the first six months of 1996 as compared

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53 In particularly, inroads have been made by Parallam® from Trus Joist MacMillan.
to 1995, to 168,317 cubic metres. Canada now supplies 7% of the total plywood imports, a formidable percentage given that more than 90% of all Japanese plywood imports are hardwood from Indonesia and Malaysia (Japan Lumber Report, 1996a).

There have also been dramatic increases in the importation of plywood substitute products such as oriented strandboard (OSB). Growth rates are exceeding 30% annually and, in the case of OSB, most of these imports are coming from B.C. facilities. The potential is great, as OSB currently holds only 2% of the Japanese market for structural panels. The Japanese structural panel market, assuming 1.5 million housing starts, is estimated at 10 billion square feet annually (Levesque Beaubien Geoffrion, 1996). If efforts underway to have OSB 325 approved are successful, mills in Canada and the United States will be able to ship OSB of 11 mm thickness and greater to Japan without the need for further regrading to JAS (Canadian Embassy, 1997).

The range of uses for engineered panel products is expanding. Mitsui plans to use OSB for sub-roof construction in their 2x4 homes. Another example: Sumitomo Forestry Company announced a new line of system houses that uses OSB throughout (for sheathing, floor material, and underlayment of roofing). These homes are factory-manufactured and have their structural posts, beams and groundsills made of laminated lumber.

The overseas producers of engineered wood products often ship directly to large Japanese builders, bypassing traditional distribution channels. Typical distribution channels for engineered wood products are illustrated below in figure 14.

**Figure 14: Distribution for Imported Engineered Wood Products**

![Diagram showing distribution channels](image-url)
6.11 Trends and implications

Factory-built homes

“...the very craftsman-like and delicate hand notching .... is being gradually transferred to a computer controlled pre-cutting or traditional pre-cutting system. This in turn is putting demands on the wood going into that system to be a more stable product, to be drier, in some cases laminated because the machines, of course, that do this notching, are very delicate.” (Powles 1995)

The trend to precut factories and factory-built homes increases the demand for engineered building products54. Hemlock neda (floor joists) are being replaced by kiln-dried spruce; solid wood posts are being replaced by three- and five-ply laminated posts and, in some cases, LVL posts. The advantages of laminated lumber include strength, foremost in the Japanese consumer’s mind after the Hanshin earthquake. The increase in the use of engineered wood products in post-and-beam construction, which typically moves directly to the precutter, has structurally impacted the conventional distribution of lumber.

More direct purchases

The distribution of engineered wood products developed without the participation of many of the larger trading houses. New and more direct distribution channels were established since certain engineered products, due to their advanced stage of manufacture, could enter distribution much further downstream than traditional lumber products55. This has opened the door for more direct imports of second-generation engineered wood products like engineered I-beams.

Demographics

With an aging population in Japan, new mortgage rules have been implemented, giving lower interest rates for new homes with “barrier-free” design features56. Many of these barrier-free designs require larger floor spans and wider interior doorways that are well-accommodated by engineered wood products. As a result, demand for such products should increase. In addition, with the current predominance of the nuclear family, larger care centres and facilities for the

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54 In a 1995 survey of 39 precut plants, 44% outlined that they are going to shift to using engineered wood products such as laminated lumber (Japan Lumber Journal, 1995a).

55 Whereas traditional lumber products often need to be merchandised (graded, sorted, and further remanufactured).

56 Barrier free designs include more open rooms in houses to accommodate seniors, wheelchairs access for example. In addition, homes that are durable and/or energy saving also qualify for special loan conditions.
growing aged population will likely require designs that favour engineered building components.

**Transfer of building technology**

Engineered wood products are also well-positioned to increase their usage in 2x4 home construction in Japan. Glulam and I-beams are becoming more common in North American homes and the same trend will likely follow in Japan. The use of stress skin panels in prefabricated homes (comprised of engineered or kiln-dried components, plywood and OSB) are also expected to increase. Such products performed well in the Hanshin earthquake by spreading the tension forces and given their advanced stage of manufacture, and are well-suited for downstream distribution.

### 6.2 Imported Prefabricated Homes

“Canadian house building is about four times more competitive than Japanese. The Japanese housing industry is very irrational, with may layers of people chipping away at the bottom line. If you could preserve some of the competitiveness, after transportation, the export of houses from Canada to Japan could become as big as Japanese auto exports to North America.” (Ohmae, 1994)

There has been strong growth in imports of prefabricated homes (primarily 2x4 platform construction-style) into Japan, particularly from Canada and the United States. From 1990 to 1993, the total number of houses imported was approximately 1,500. Then, in 1994, the imports of prefabricated home packages jumped to 2,619 and then increased by 97% from 1994 to 1995 to 5,825 units. In 1995, imports of Canadian homes eclipsed U.S. imports for the first time and led all countries with a 30% market share of imported prefabricated homes. For the period January to November 1996, Canadian exports of prefabricated homes to Japan had already surpassed total 1995 shipments. The future looks bright as SRI Homes International, Douglas Manufactured Homes, Avatech Homes, Igloo Building Products, Viceroy Homes, and Fermco Industries have all recently signed agreements with Japanese developers that combined are worth more than Cdn$190 million (Canadian Embassy, 1997).

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57 It is interesting to note that one Swedish company (Sweden House) which is the largest exporter of prefabricated homes to Japan, is planning on building a plant in British Columbia to produce manufactured homes for the Japanese market.

58 Canadian exports of prefabricated homes were Cdn$131.5 million in 1995 and were Cdn$138.3 million for the nine months ending September 1996 (Industry Canada, 1996)
An appreciating yen, the trade imbalance between Japan and the United States, and Japanese government deregulation\(^{59}\) has opened the door to imported housing. The advantages that imported houses bring to the Japanese consumer are becoming more widely known\(^{60}\). They include:

- cost competitiveness;
- speed of construction;
- design features;
- strength and stability (especially after the Hanshin earthquake); and
- low maintenance and high livability through improved climate control, with excellent thermal insulation and airtight qualities.

Moreover, the Japanese government has implemented a number of policies to encourage housing imports (e.g., builder seminars and the facilitation of code approvals), as a way to meet the increasing demand for affordable housing. The Ministry of Construction has set an import target of 50,000 manufactured homes by the year 2001. The current distribution channel for imported prefabricated homes is shown in figure 15.

\(^{59}\) Import duties on packaged housing imports into Japan currently stands at 3.9%. By the year 2001, the import duty will be reduced to zero (Imported Housing Industries Organization, 1996).

\(^{60}\) These advantages are becoming well known to some traditional homebuilders as well, as evidenced by some post-and-beam builders that are shifting into 2x4 production, for example, Kinoshita Komuten, a former major regional post-and-beam house builder, now builds over 2000 2x4 homes annually (Canadian Embassy, 1996b).
6.21 Trends and implications

New business opportunities

In the past, first-generation traditional homebuilders in Japan built up their business, became established and were profitable. Now, the second-generation is taking over control of the business (Yamamoto, pers. com). However, the market share for small homebuilders (mostly post-and-beam) in Japan is declining (Kurimitsu, pers. com), labour shortages are chronic, there is shortage of young apprentices, and capital for small builders is difficult to obtain (Imported Housing Industries Organization, 1996). Second-generation traditional homebuilders are looking for new business opportunities as a means to survive and increase their competitiveness. The most common among these include:

- joining the group of a large homebuilder;
- purchasing the right to a home-building franchise; or
- importing prefabricated houses.

The large homebuilders (Sumitomo, Mitsui, Misawa, Diawa, etc.) staged major advertising campaigns after the Hanshin earthquake, and provided non-contractual financial assistance\textsuperscript{61} to homeowners affected in the earthquake. This raised customer expectations for service from these companies, relative to small homebuilders, and has positively impacted their market share. Joining the keiretsu of these large corporations is an option for the small homebuilder.

\textsuperscript{61} Sumitomo spent more than $20 million dollars (non-contractually) to help affected homeowners in Kobe as part of their corporate social responsibility.
Small homebuilders also have the option of becoming a member of a franchise chain\(^\text{62}\). Franchise chains have brand names, which are very important in Japan. National homebuilders have invested significantly in achieving distinct and recognizable building system brand identification. These brand names are developed using advertising and proprietary building design. After establishment, larger builders often franchise the brand name to smaller builders (Spiess, pers. com.). Franchising rights give franchisees knowledge of project planning and building methods, access to building materials at attractive prices, industrial tools, counseling and sales and marketing assistance (Japan Lumber Journal, 1995b). However, these franchising rights come at a price\(^\text{63}\).

Franchise chains have developed as a new supply source for their members outside normal distribution channels; some even specialize in imported housing (Imported Housing Industries Organization, 1996). However, by not being a keiretsu member, these small homebuilders may still have the option of independently becoming involved in imported housing (Aono, 1995).

Small homebuilders can expand their business and gain independence from large Japanese companies by importing complete prefabricated home packages directly from the exporting country (Powles, pers. com.). Importing prefabricated housing is a relatively new business in Japan, with rapid increases having occurred in only the last few years. Foreign homebuilders and consolidators that assist with on-site construction (e.g., framing and site supervision) appear to have achieved the fastest growth.

**After-sales service issues**

As volumes of these imported products increase, Japanese downstream customers are starting to demand more after-sales service, access to parts, and JIT delivery, the typical functions of a distribution system. Delivery times are becoming more critical and builders are working to tighter schedules (Major, pers. com), thereby moving toward “Japanese requirements.”

Supply difficulties have occurred with most prefabricated housing packaged imports (JABRIS, 1996). Expensive airfreight delivery and construction delays are a consequence of missing or damaged items. These construction delays can considerably reduce the cost advantage of imported housing. Japanese building companies that have experienced these problems have tended to choose new suppliers that have the ability to deliver, often at the expense of design and production technology. Given that delivery problems are commonplace, and

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\(^{62}\) Examples include Eyeful Home Technology Inc., Tostem Group, Cascade Components Inc., and Custom Group.

\(^{63}\) Franchising costs can go into the millions of dollars.
downstream customers are demanding more “Japanese-style service,” a
distribution system for imported building products could well evolve.

New entrants
In response to the rapid increase in imported housing demand in Japan, wood-
related distribution chain members, including wholesalers and trading houses, are
attempting to participate in the imported housing business. It may become too
competitive for some of these companies and particularly for some foreign
consolidators, who are essentially yet another “middle man.” Foreign
consolidators must continue to add value to the process or they risk being
bypassed (Spiess, pers. com.).

New designs
Imported products provide the opportunity to introduce new housing designs,
something the Japanese industry does not typically provide (Aono, 1995).
Although North American design concepts are being employed, most homes (over
two-thirds of all cases) are still individually designed in Japan (Imported Housing
Promotion Council, 1994). However, some Canadian housing manufacturers are
starting to provide full-service packages that go beyond procurement of building
products to include design services. This is allowing Canadian housing
manufacturers and consolidators to sell custom-designed homes to end users.
However, builders and architects, not consumers, are usually the decision-makers
in Japan for choosing specific building products. By selling downstream and
working closely with Japanese builders, companies will gain an in-depth
understanding of the needs to the consumer, allowing them to modify their
products to meet market requirements64.

Imported housing stimulates demand for imported building products
Importing the complete home package is an efficient way for Japanese builders to
learn 2x4 housing technology (Yamamoto, pers. com). Most companies
importing house packages are small- to medium-sized builders (100 homes or
less) (Canadian Embassy, 1996b) that often also run a general construction
business. After builders import several home packages and learn platform
construction techniques65, it is easier for them to import building materials and

64 However, it is not necessary to form Joint Ventures with Japanese firms, as this
factor was considered least important in a survey of Pacific Northwest housing
exporters (Rahikainen, 1995)

65 Foreign framers (both Canadian and American) are available for framing in
Japan. Training for Japanese 2x4 home builders is also available in Vancouver at
Royal Oak, a private school for the Japanese construction worker. A new training
program at the University of Washington is currently training over 150 Japanese
carpenters annually.
build homes themselves (Keelan, pers. com.). This presumption is supported by a Nihon Keizai Shimbun survey that outlined that, after importing house kits, importers “tend to switch to materials procurement in a bid to reduce the transportation cost as their order volume expands” (Canadian Embassy, September 1996b)\(^{66}\). As builders become comfortable with imported building materials and tariffs decline\(^{67}\), the next trend appears to be the import of building products. Increased competition and high trucking costs in Japan may make imported panelized homes uneconomical in the long-term (Yazaki, pers. com.)\(^{68}\). In addition, as market penetration away from major port areas increase, the

\(^{66}\) A recent survey (1996) by the Nihon Keizai Shimbun had the following results for the procurement methods of building materials for 154 firms (132 firms build homes, 17 firms are part of a franchise system, and 31 firms sell building materials to home builders) contractors and trading importing prefabricated housing:

- **Purchase from:**
  - USA 108 firms
  - Canada 80 firms
  - Europe 13 firms

- **Method:**
  - Purchase direct from building materials maker - 79 firms
  - Purchase through trading houses - 36 firms
  - Purchase from their local operations - 35 firms
  - Purchase imported materials in Japan - 29 firms

The Imported Housing Industries Organization (IHIO) also performed a survey of 80 home builders in October, 1995 with the following results:

**Import route for imported housing**
- Use overseas consolidator - 49%
- Use own overseas local office - 40%
- Use trading companies/domestic materials importers - 10%

**Most popular import route**
- Direct import on their own - 71%
- Joint purchase participation (IHIO project) - 12% (Imported Housing Industries Association, 1996)

\(^{67}\) As a result of the Uruguay Round Negotiations, tariff rates will be decreased step by step from January 1, 1995 to January 1, 2000. Tariff rates are often higher for individual building materials, in some cases exceeding 10%, than for imported prefabricated housing packages, which are being reduced from 3.9% in 1995 to 0% in 2000 (Japan Construction Information Centre, 1995).

\(^{68}\) In Japan, homebuilders generally service an area of approximately 100 km radius as beyond that transportation costs negatively impact competitiveness (Powles, pers. com.).
difficult transportation system in Japan should have a greater impact on the competitiveness of imported prefabricated homes.\(^{69}\)

Imports of prefabricated home packages will continue to grow, although growth may taper off as builders learn to construct 2x4 homes and form buying groups to purchase building materials directly.

### 6.3 Imported Finished Building Products

The finished building products sector in Japan is dominated by large companies\(^{70}\) that do not generally have a solid wood background. These large manufacturers offer a broad product range and invest heavily in marketing and new product development. The regulatory system in Japan (e.g., the fire codes in the Building Standard Law) has promoted the development and acceptance of non-wood products such as doors and windows, even though these products may not be preferred by consumers. However, with imports of finished building products increasing, solid wood appears to be increasing its market share (as building products imports are generally heavy to solid wood).\(^{71}\)

Japan’s finished building products market (prefabricated structures, mouldings, doors, windows, etc.) is huge, estimated at over Cdn$200 billion (B.C. Trade Development Corporation, 1995b). With the westernization of Japanese homes and the dramatic increase in 2x4 housing starts, the demand for imported building materials that meet Japanese standards should continue to grow. Builders, looking for ways to reduce costs and improve their competitiveness, and wholesalers, that have seen their traditional business activity decline, are becoming more interested in handling imported housing materials.

Finished building product exports from Canada and from the United States have shown strong growth. U.S. secondary wood products\(^{72}\) exports to Japan reached almost US$200 million in 1995 and have grown 200% since 1989 (80% of that growth occurred in 1995) (Lippke, 1996). In contrast, Canadian exports of prefabricated buildings and finished building materials for 1995 totaled Cdn$165 million, of which $34 million consisted of finished building materials exports (Statistics Canada, 1996).

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\(^{69}\) The additional costs of unloading of containers and reloading onto smaller trucks was not yet experienced by the Canada Comfort Direct members interviewed.

\(^{70}\) Such as Daiken Trade and Industry, Dantani Plywood and Eidai Sangyo.

\(^{71}\) For example, although aluminum sash dominates current housing, wooden sash dominates imports (Imported Housing Industries Organization, 1996).

\(^{72}\) US secondary wood products include: doors, windows, fabricated structural components, structural panels, pre-fabricated homes, and cabinets.
Figure 16: Imports of selected Finished Building Products from Canada
(Source: Statistics Canada, 1996)

Wooden doors

The total exterior door market in Japan is estimated to exceed 200 billion yen (more than Cdn$2.5 billion) and the interior door market is estimated at over 350 billion yen (more than Cdn$4.3 billion) (Schaffer, 1996). However, wooden doors have less than 20% of the overall market (by value), as their usage is constrained by the Building Standard Law that largely prevents the usage of wooden doors in apartments, condominiums and other high-density developments (Jetro, 1996a).

Imports of wooden doors have increased by almost 60% from 1991 to 1995 and reached a value of 8.1 billion yen (Cdn$102 million) in 1995. However, imports still hold less than a 10% share of the Japanese wooden door market. The export leaders are the U.S. (37% share) and Indonesia (16% share), followed by Canada (which supplied 12% of imports into Japan in 1995) (Jetro, 1996a).

Due to the more distinctive design features and high performance of imported wooden doors, their popularity among Japanese consumers should continue to increase.

Wooden windows

Aluminum windows, with over 90% market share, dominate the Japanese window market. Plastic windows have grown in popularity and now hold about 5% of the market. The wooden window market in Japan is very small and represents only about 1% of the total window market. High fireproofing standards have impacted the market penetration of wooden windows. Over 60% of the wooden windows available in Japan are imported (Takabatake, 1994).

Imports of wooden windows into Japan have risen by 64% from 1991 to 1995 and reached 5,431 million yen (Cdn$68 million) in 1995. The export leaders are the
U.S. (57% share) and Denmark (14% share), followed by Canada (which supplied 14% of imports into Japan in 1995) (Jetro, 1996a).

The future looks bright for imported wooden windows: their excellent soundproof and insulative qualities are in demand by Japanese consumers.

**Wooden flooring**

The wooden flooring market in Japan was estimated at 17 billion yen (Cdn$212 million) in 1994. Domestically produced solid wood flooring sales have shown a steady decline in quantity, declining from 6,083 thousand square metres usage in 1986 to 3386 thousand square metres usage in 1994 (Schaffer, 1996). However, companies such as Eidai Company, who hold one-third of the domestic market for wooden flooring, are developing new soundproof flooring materials in an attempt to increase market share.

Imported flooring materials, on the other hand, accounted for only 10% market share but have shown considerable growth (Jetro, 1996b). Import statistics for flooring materials can be derived from the classification of “builders joinery and carpentry of wood”. Imports of this category increased by 137% in 1993 and by 146% in 1994. New Zealand was the market leader, followed by the United States. Canada supplied 8% of imports into Japan in 1995.

The use of wall-to-wall carpeting has been declining in Japan. Increasingly, Japanese consumers after the luxury image are demanding solid wood flooring (Jetro, 1996b).

The above examples are but a few of the finished building products that are or could be exported to Japan. The typical distribution channels for imported finished building products are shown in figure 17.

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**Figure 17: Distribution for Imported Finished Building Products**

CANADIAN BUILDING PRODUCTS PRODUCERS

- Trading House
- Freight consolidators
- Retailer / distributor / wholesaler
- Japanese manufacturer
- House builders / Construction firms / Builder buyer groups
6.31 Trends and Implications

Canadian manufacturers going direct

The market for imported finished building products into Japan is still quite small, allowing for direct and simple distribution. Typically, Canadian manufacturers sell direct to the builder/construction company or they utilize a consolidator, trading house or distributor to reach the builder.

Drive to lower costs boosts imports

The trend in building products in Japan is for increased product standardization and lower cost products. Based on recent interview results in the domestic solid wood door business, Japanese manufacturers of building products receive approximately 40% of the suggested catalogue price; the balance, or 60%, accounts for distribution costs in Japan ex-factory (Schaffer, 1996). In an effort to reduce costs, large prefabricated homebuilders are starting to import finished building materials directly. For example, National House, the homebuilding subsidiary of Matsushita Electric Industrial Co. plans to introduce lower-cost homes in the spring of 1997, in which imported building materials will be used to reduce construction costs (Canadian Embassy, 1995a). There have been other examples of small builders banding together to buy a container full of doors. With imports of finished building products increasing, solid wood appears to be increasing its market share.

Imported solid wood building materials have shown strong volume growth combined with yearly price declines (Schaffer, 1996), making them potentially stronger competitors for domestically produced building products. Once Japanese building products manufacturers begin to lose significant market share to imported building products, they could intensify their efforts to reduce costs through offshore manufacturing, using western design ideas. For certain building products such as flooring and laminated doors, Japanese companies that first imported European and North American products are now importing product designs and are having these products built in China and Southeast Asia. Companies like Diawa and Matsushita Electric Works have recently visited China to explore the possibility of further investing in non-domestic manufacturing facilities (Canadian Embassy, 1995a). Sanwa Shutter, the largest Japanese manufacturer of sliding doors and shutters, recently purchased the largest supplier of doors in the United States, Overhead Door Corporation (Canadian Embassy, 1996a). This is part of the trend of hollowing-out manufacturing in Japan and moving production offshore.

It is often housing companies or consolidators that introduce new building products to the market. Construction companies are also starting to increase procurement from overseas. Shimizu Corp., with 1995 overseas purchases of four

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73 Import duties in Japan for building materials range from zero to 20%.
billion yen (Cdn$53 million), plans to increase purchases to 20 billion yen (more than Cdn$250 million) in 1998. Contractors have been slower to pursue imported building materials, as they have followed their traditional practice of having subcontractors handle material purchases. Competitive pressures, however, are changing these customs (Canadian Embassy, 1995a). After building products (e.g., doors/windows) are introduced to traditional homebuilders and construction companies, demand for these products can grow, especially if sizes can be modified for use in “mansions” and traditional homes.

Renovation market holds promise

The renovation market is also starting to evolve in Japan. Companies like Mitsui and Misawa Home, and large construction material manufacturers, are entering the home renovation market. Chains of home renovation stores are being established by large manufacturers like Matsushita Electric Works, Toto and Mr. Build Japan, which has over 300 outlets nationwide (Canadian Embassy, 1995b).

Older building codes, which permitted the use of materials that may not conform to new construction standards, are likely to lead to renovations and provide growth opportunities for imported building materials. In addition, the renovation market has a total market size exceeding seven trillion yen (Cdn$87 billion) and expected is to grow to 10 trillion yen (Cdn$125 million) by the year 2010 (Canadian Embassy, 1995b). As a result, renovations are an emerging market for imported building products (such as flooring, moulding, kitchen cabinets, and interior doors), especially if the building products are easy to install and can be modified to meet local needs and specifications.

Currently, most imported finished building products are distributed either directly to the builder or through arrangements with existing building product distribution systems. Many Canadian manufacturers (e.g., Merit Kitchens, Loewen Windows) are establishing Japanese offices and working hard to develop downstream business. They are increasing the types and quantities of finished goods that are imported (e.g., widows, doors and cabinets) and are bypassing the distribution channels by going directly to builders.

Do-it-yourself (DIY) centres growing

The trend for DIY centres, although still in its infancy, is growing. Some wholesalers are moving into this area and DIY centres, such as those in North America and Europe, could proliferate in the future (Pepper, 1996). The establishment of building materials centres, accessible to both builders and consumers, could revolutionize the building trade by creating an open materials

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74 Imported building materials for renovations may not need to comply with all the standard Japanese building regulations.
market\textsuperscript{75}. For many building products, the current decision-maker in determining what products will be used is not the consumer but rather the house designer or builder. Without an open market for building materials in Japan, the general consumer does not have a good understanding of the prices of materials and tends to accept the prices and choices provided by carpenters and homebuilders. The Japanese consumer could become more involved in decision making as an open market for building materials develops. However, future growth of DIY centres will largely depend on whether the Japanese homeowner chooses to repair and remodel or continues to demolish and replace every 20 years.

**After-sales service issues**

Most Canadian building product companies currently exporting can service their existing customers. However, the proportion of the total market they represent is still very small. Once market share increases, it may be difficult to provide service without a local distribution network. Although some products like doors and paneling usually require low maintenance, other products like kitchens will likely require maintenance, service, and/or parts during their lifetime, requiring some type of distribution to service these needs. The Japanese 2x4 Association has suggested that capitalization of export opportunities will not be achieved without stocking products in Japan. Yano Research Institute has indicated that problems associated with imported products (stability of supply, replacing defective items, delivery forecasts, slow delivery and customs clearance) will only be overcome by stockpiling imported materials in Japan (Yano Research Institute, 1995). As a consequence, an increasing number of building product importers are establishing stockyards in major areas to enable renewal of inventory, ensure timely delivery, and promptly address product claims (Jetro, 1996b). A Canadian window manufacturer, Loewen, has arranged to have its wooden windows and doors stored in the distribution centre of Marumi Sanyo, a building materials distributor (*Japan Lumber Journal*, 1996j).

Japanese customers are generally very strict on delivery. As market share from imports increases, Japanese customers will expect just-in-time delivery (JIT) of required items (Laverty, pers. com.). It may be possible to get the builder or distributor to take on some of the service responsibility (Sprague, pers. com.). However, with the trend for more standardization of building products occurring, building distribution centres for imported products could evolve. Service requirements in the homebuilding industry in Japan are at a very high level relative to North American standards. Actual cases have builders returning long after the official warranty has expired to complete needed repairs at no charge in order to maintain their reputation. This is the expected level of service and, while some tradeoffs are acceptable for price reductions, it still sets a standard that

\textsuperscript{75} In Japan, building contractors quote materials and labour together. With no open building materials market, it is very difficult for the consumer to determine the real cost of building materials.
Canadian producers must be aware of and incorporate in their export operations. It is likely, though, that the custom building product market can for some time be supplied through direct channels (Poliquin, pers. com.).
7.0 CURRENT CANADIAN INITIATIVES AS RELATED TO THE DISTRIBUTION SYSTEM

The Canadian Forest Service (CFS) recognized that the fundamentals of the Japanese distribution system were generating signals for change and has supported research in what these changes might produce and how the Canadian forest products sector is positioned to respond. The CFS research includes work on specific products, manufacturing technologies, trade flows and pricing effects on Japanese demand. This research complements the efforts of Canadian exporters to meet the opportunities available within the dynamic Japanese market.

Atlantic Canada Home Program, a new federal/provincial trade development initiative of the four Atlantic provinces, focuses on having products promoted through trade shows and model homes in Japan. A second phase of the program includes the building of model homes in Japan that have “Atlantic Canada” design, furniture and decorative items.

B.C. Wood Specialties Group Association (BCWSG) organizes a series of market trips to Japan to introduce British Columbian companies to potential downstream Japanese customers. Each trip has a focus and is organized in cooperation with relevant Japanese and Canadian government agencies in Japan. Companies have the opportunity to gather market intelligence and network with other companies currently exporting to Japan. New marketing co-operatives, with a similar focus to BCWSG, such as the Quebec Wood Export Bureau (QWEB) in Quebec and the Wood Products Group in the Maritimes, are emerging to expand trade opportunities in these provinces.

Canada Comfort Direct (CCD) program is a successful government initiative that is based on a marketing co-operative with a focus on direct sales to Japanese builders. CCD is a comprehensive program that includes seminars, year-round promotion and market information dissemination. Key elements to the program are an ongoing presence in Japan with Japanese-speaking staff and government (both provincial and federal) financial support. This support has been enhanced by Canadian Embassy introductions and company endorsements, which has lowered the implied purchasing risk for smaller Japanese companies. New members to the program get the benefit to learn and network with export experienced companies.

The CCD program promotes the following capabilities of its members:

- Japanese language skills;
- Japanese language information;

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76 Over 63% of the $165 million Canadian of homes and building materials exported from Canada to Japan in 1995 was attributable to the twenty nine CCD member companies (BC Trade Development Corporation, 1996).
- Prompt response to inquiries;
- Product guarantees;
- Packaging and shipping; and
- After-sales service commitments.

The traveling “Showcase” exhibit, a smaller version of the CCD program for new members, and the Canadian Building Products and Services Directory, with a distribution of 13,000 copies annually, complement the CCD program.

The Canadian Embassy is in Tokyo and the Canadian Consulates in Japan are in Nagoya, Fukuoka and Osaka. They complement export market development efforts in a number of ways. They organize trade promotion events, seminars for local buyers, housing and building materials shows; lobby prefecture governments to favour use of imported houses and building materials in Public Housing Projects; organize buyers’ missions to Canada; run technical seminars; recruit Canadian companies for trade shows and installation workshops; and ensure Canadian participation in Japanese government initiatives in the housing sector (Canadian Embassy, September 1996).

Export Building Products Initiative of Manitoba, a consortium of building product manufacturers, has constructed a demonstration “Export House” that showcases finished building products for Japanese buyers.

Export Council of Canadian Architecture (ECCA), a B.C. Trade Development Corporation-sponsored initiative, promotes the sale of Canadian professional architectural services to Japan. Since architects and builders have such a key role in determining building products used in Japanese houses, an increased role by Canadian architects would not only increase the use of Canadian products but help in building downstream relationships (B.C. Trade Development Corporation, 1995a).

Forest Renewal BC sponsors displays at the Jetro Housing Materials centres in both Tokyo and Osaka. These building products displays, managed by the B.C. Wood Specialties Group Association, consist of two exhibition houses, made entirely from building products from B.C. Forest Renewal BC contributed $500,000 for one year to have over 100 crates assembled and set up in Japan (Forest Renewal BC, 1996a).

These Jetro Housing Materials centres, which opened in March of 1996, are permanent showrooms for imported housing materials. In addition to seeing housing materials on display, Japanese builders and architects can attend seminars; access technical information, catalogs, pricing information; and even obtain samples. Professional staff are on site to assist visitors.
8.0 CONCLUSIONS AND RECOMMENDATIONS

Market demand for imported wood products in Japan is changing and opportunities for importers to more directly access downstream customers are emerging. A large marketing effort is required to take advantage of the changes in the Japanese distribution system. The Canadian federal and provincial governments can play a critical role in this area. Initiatives that have official support by Canadian governments are viewed favourably in Japan and other Asian countries.

There are a number of options that government agencies, associations and private firms could pursue to assist B.C. companies in taking advantage of the ongoing changes in the Japanese distribution system. These are outlined in the following sections.

8.1 BC Coast

8.11 Construction Lumber for Post and Beam Housing

In the past, the Japanese post-and-beam industry has lost market share to Japanese prefabricated housing and it is now losing market share to 2x4 housing. As a result, the B.C. Coastal merchantable lumber industry, a major supplier to the traditional Japanese post-and-beam market, has experienced reduced demand. This is further compounded by increased foreign competition in the Japanese post-and-beam market from Scandinavia, Europe, New Zealand and Chile (primarily in kiln-dried lumber and laminated lumber). This foreign competition has managed to gain market share rapidly. Some of the success of this new competition can be attributed to their ability to bypass the traditional distribution system by selling direct to downstream customers and precut plants. In addition, this new competition has been able to adapt its products to compete with changing production methods and market demand in Japan.

There are a number of opportunities for improving the competitive position of B.C. Coastal merchantable products, specifically hemlock, in Japan. High priorities in the area of technology and processing include:

- assisting the industry to determine the existing market perception of hemlock among Japanese customers and to focus efforts for product and promotional development;
- assisting the industry to develop cost-effective kiln-drying of hemlock (promotion of R&D), especially for construction grades;
- assisting the industry to develop cost-effective engineered and laminated wood products, as well as post-and-beam connector systems; and
• initiatives to help Canadian firms mimic the ability of Japanese firms to respond quickly to customer orders and provide extensive customer service and financing.

In addition, there are market research, access and promotional needs that government could address that would be of great benefit to the B.C. Coastal lumber exporters. Some of the highest priorities are:

• initiatives to promote coastal companies selling directly to the precut business;

• market research and intelligence to continue to keep the industry informed of the rapidly changing regulatory, distribution, financial and cultural environment that impacts Japanese end users of coastal wood products;

• support of market research to identify new products from coastal hemlock for the Japanese market;

• translation services to disseminate existing market research currently available only in Japanese;

• support to disseminate the existing market information on Japan for lumber and value-added building products; and

• renewed support for market promotion of both commodity and value-added wood products made from coastal species.

8.12 Shop and Better Lumber

Westernization of Japanese consumer tastes has impacted home design. The trend toward less traditional Japanese-style rooms has resulted in lower demand for solid wood products (interior fittings). This has negatively impacted the demand for coastal shop and better lumber grades. At the same time, use and acceptance of lower-priced wood substitutes has increased. Example of substitutes are the lower-priced composite wood products or wood alternatives from fast-grown plantations. One outcome of this shift has been an overall decline of the Japanese solid wood remanufacturing industry. To help cope with these market changes, the B.C. Coastal remanufacturing industry could reposition supply to more finished solid wood products and composite wood products.

Government agencies, industry associations or individual firms could assist the remanufacturing industry by sponsoring:

• analyses of market opportunities for custom-designed solid wood interior fittings to meet downstream demand;

• market research to ensure products meet Japanese specifications and standards;

• technology transfer in finishing equipment (veneering, superfinishing, etc.), so that more finished solid wood products can be manufactured in B.C.;
• training that would ensure skilled workers are available to companies to rapidly adapt new technologies;
• training programs in Japanese language, culture and social norms for Canadian secondary wood processing industry associations;
• trade strategies that encourage direct-to-builder sales of more (finished) high-value solid wood building materials;
• visits from Japanese builders to manufacturing facilities in B.C. (small- and medium-sized enterprises would be the target); and
• greater integration between coast lumber producers and the manufacturers of finished products targeted towards the Japanese market (e.g., promote the production of kiln-dried coastal hemlock to the meet laminating specifications for edge-glued products for Japan).

8.2 BC Interior

B.C. Interior producers are well-positioned to exploit the recent strong growth in demand for both imported engineered wood products and dimension lumber (for 2x4 housing and genban material). To ensure the Interior industry capitalizes on this opportunity, assistance could be focused on providing:
• tailored marketing reports (e.g., examining the next steps in value-added for laminated post producers in B.C.);
• funding for research and development for new product development (e.g., 2x4 stress skin panels and SRI Homes International’s prefabricated “traditional style” hybrid post-and-beam homes (Forest Renewal BC, 1996b));
• technical and test data development to facilitate the Japanese in adapting their current codes and standards in a manner that stimulates imports and use of more engineered wood products; and
• competitive analysis of other jurisdictions exporting finished products into Japan (e.g., Scandinavia, Austria, Chile and New Zealand).

8.3 Finished Building Products and Prefabricated Houses

Canadian housing and finished building product companies are comparatively small (companies and privately owned with a limited capital base) relative to their Japanese, U.S. or European counterparts. Hence, they do not have the production capacity to deliver the volumes required to qualify as a supplier in the typical Japanese distribution channel (Powles, pers. com.). In addition, it is difficult to undertake the following tasks independently:
• finance initiatives that establish company credibility and product reliability in this market;
• adapt and re-engineer products, and re-tool facilities, so as to meet the needs of the Japanese market;
• absorb the high expense of establishing and operating a representative office in Japan;
• develop effective promotion and advertising strategies;
• select target markets and distribution routes; and
• to comply with Japanese business practices and government regulations (Canada Comfort Direct members, pers. com.).

Consequently, Canadian prefabricated home and building materials companies require assistance to enter the Japanese market and to bypass the middle layers of the Japanese distribution channel (enabling Canadian suppliers to sell direct to Japanese builders/construction firms). Direct sales to Japanese homeowners may also result.

There is a growing trend by builders and construction firms in Japan to import prefabricated homes and building materials direct from offshore suppliers. To capitalize on this trend, smaller Canadian companies require assistance to connect with Japanese builders.

Canadian housing and building product companies exporting to Japan do not, generally, have large marketing and promotion capabilities. Although the growth of imported building products into Japan represents a huge opportunity for Canadian companies, Japan has also opened its doors to producers from around the world. For Canada to maintain its competitive position, intensified marketing efforts will need to be made. Canadian governments, both federal and provincial, could further support these types of initiatives so as to enhance the credibility of Canadian companies in Japan.

Government agencies, associations and private companies in Canada could assist in the following areas:

• sponsoring marketing co-operatives (e.g., expanding on the very successful Canada Comfort Direct (CCD) program by also targeting building materials for the post-and-beam sector, prefabricated housing sector and renovation sector);

• establishing a Vancouver-based showcase to allow Japanese visitors (Japanese builders/trade missions) to familiarize themselves with the range of higher-valued wood products produced in Canada/B.C. Japanese consumers typically shop for homes and interior features in “housing parks” found throughout Japan. Although participation in this market is expensive, Japanese builders have demonstrated these display homes to be effective advertising. A Canadian showcase, which would utilize similar principles, could include:
  • a display home
  • building product displays
- building demonstrations, from foundation to finishing
- a reference library
- seminar rooms for seminars and events
- installation displays (video, live)
- business and technical consultation

- improving market intelligence by expanding the availability of market reports and the funding for market trips;

- providing greater promotional efforts to convey the strengths of the Canadian industry and provide information on our products to downstream layers of the Japanese distribution chain. This might include:
  - market promotion, to continually strengthen Canada’s profile in the marketplace
  - detailed brochures (Japanese-style: price lists, specifications, design details, repair and maintenance) that will allow Japanese consumers, in consultation with an architect and builder, to choose Canadian building products. For example, developing detailed building manuals for new products (e.g., North American staircases)
  - addressing the shortage of architects and designers familiar with Canadian building products. Technical seminars, information, and assistance could be provided to Japanese design architects to incorporate Canadian building materials into Japanese homes. Better information will minimize building problems such as improper installation, humidity-related problems and improper use of building materials
  - assisting Canadian companies to advertise their products in the Japanese publication “Guide to Imported Building Materials” (produced by Kenchiku Shiryo Kenkyusha Company Ltd.), a publication that is distributed to Japanese builders
  - engineering (detailed technical) information and product samples for testing
  - Internet-based information products and CD-Rom products. For example, enhancing the Forest Renewal BC/BC Wood Specialties Group JETRO display with a CD-Rom kiosk in Japanese that provides detailed information on the product profile of Canadian firms, with access to catalogues, pamphlets and brochures
  - assisting industry associations to develop business relations between Japanese builders and Canadian companies by working with Japanese agencies. For example, the Hokkaido Airfront Development Corporation and the Chitose Airport Foreign Access Zone are assisting medium-sized Japanese firms to import directly from overseas. Associations with
Japanese language abilities could assist Canadian companies to connect with these organizations.

- assisting Canadian associations to work with smaller builders in Japan to consolidate their demand and import in larger quantities on a co-operative basis. Information on Canadian products can also be disseminated to these potential customers. For example, the 2x4 Homebuilders Association has regional bodies that could market imported building products directly to builders and end users, thus bypassing the traditional distribution system;

- overcoming after-sales maintenance issues (this is a function usually performed by the distribution system in Japan) and examining options for establishing a distribution service system (stock points in Japan or Canada for Canadian exporters); and

- a study on how large homebuilders in Japan market their homes and building products (large overhead for advertising, impact of brand image on consumer purchase) to provide insight for Canadian exporters developing their marketing plans.

### 8.4 Building Systems

Canadian architecture and engineering capabilities are well-respected in Japan. This provides opportunities to develop new building systems that would incorporate many of B.C.’s value-added wood products. The development of new building systems could utilize some of the expertise and promotional efforts of the new initiative of the Canadian Mortgage and Housing Corporation (CMHC) to promote Canadian building systems abroad. Combining knowledge of Japanese needs for housing (through market intelligence) with our knowledge and technology in building systems could open the door to new and valuable markets in Japan. The following would help explore this potential:

- assisting the industry to develop proprietary building systems; for example, developing a post-and-beam panelized approach, such as the 2x4 stress skin panels that demonstrated superior structural characteristics in the Great Hanshin (Kobe) Earthquake;

- investigating hybrid post-and-beam and 2x4 construction opportunities (post-and-stud);

- exploring the develop and promotion of knockdown engineered building components such as trusses, floor systems and wall systems;

- developing information technology applications that provide computer linkages between Japanese needs and production in B.C. using CAD/CAM/CIM techniques;

- researching opportunities for delivery and storage systems that allow increased exports without increasing the need for high-cost storage and transportation;
• initiating conferences between the growing prepackaged home industry
  serving Japan and the value-added wood products manufacturing sector, to
  facilitate the maximum amount of B.C. building product in each manufactured
  home; and

• establishing a system of qualifications and mutual test recognition, e.g., testing
  in Canada to Japanese standards for new building systems.

8.5 Summary

The market in Japan for wood products is changing significantly. These changes
are in shifting tastes/demands, competitor positioning, market requirements, social
needs and economic norms. Nowhere is this more obvious than in the distribution
system. These changes are shortening the distribution chain and many of the
regulatory, cultural and historical impediments to imported building products are
being removed.

As with all change, opportunities and threats emerge. Opportunities will be
captured by those Canadian producers who migrate up the value chain and export
more finished products. On the other hand, foreign producers that are attuned to
these structural changes will threaten Canadian market share in Japan.

A unique window of opportunity for Canadian suppliers exists to:

• to capitalize on new opportunities by expanding market promotion initiatives
  for Canadian value-added wood products; and

• reinforce Japanese demand for traditional Canadian lumber supply to Japan.

Canadian producers involved in the Japanese market will need to recognize the
changes occurring in distribution of wood products in Japan and vigorously
pursue trade strategies that leverage this change to their advantage.
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GLOSSARY OF TERMS

AAC | annual allowable cut
CIF | cost, insurance, freight
consolidator | companies that assemble all house components and then ship them to market
FAS | free alongside ship
fusuma | sliding doors
genban | merchantable grade lumber which is raw material for manufacture into finished construction lumber products
green lumber | lumber that has not been dried
hashira | upright post in Japanese post and beam housing
hirakaku | roof beam in Japanese post and beam housing
JIT | just-in-time
Keiretsu | Business groups that cooperate for strategic purposes. Keiretsu generally have a supplier family and captive distribution network which is focused around a powerful manufacturer or financial institution.
LVL | laminated veneer lumber
mabashira | Japanese stud in Japanese post and beam housing
mansions | small apartments in high rises located in major urban centers
MDF | medium density fibreboard
moya | purlin in Japanese post and beam housing
neda | floor joist in Japanese post and beam housing
 precut plant | a manufacturing plant (semi or fully automated) where lumber is cut to specific lengths and in the case of traditional construction lumber, mortise and tenon or connector joints are machined to the specifications of the buyer
shoji | paper sliding screens
Sogo Shosha | Japanese general trading houses
SPF | spruce/pine/fir
sujikai | bracing in Japanese post and beam housing
Tatami | the traditional Japanese-style room
Tegata promissory notes
# AGENCIES CONTACTED

<table>
<thead>
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| Canada-Japan Trade Council                         | Suite 903  
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Ottawa, Ontario, Canada, K1P 5E7                                        |
| Canadian Embassy                                   | 3-38 Akasaka 7-Chome  
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