Introduction

During the Fordist boom decades from the 1940 to the 1970s British Columbia’s forest industries experienced a spectacular expansion. The production of the main commodities, especially lumber, plywood, pulp and paper, was increasingly organized by relatively few vertically integrated corporations (Hayter, 1976). The severe, prolonged recession of the early 1980s, however, stimulated widespread plant closures and job losses and marked a turning point in the fortunes of BC’s forest industries, and for corporate planning. Production costs were among the highest in the world, technological obsolescence was widespread, harvest levels had more or less peaked, and in evolutionary terms the industries were seen as mature, on the plateau or sunset stage of a declining resource cycle (Clapp, 1998). Subsequently, a pine-beetle infestation that has ravaged vast swathes of interior forests has made future timber supply highly uncertain. Moreover, various ‘wars in the woods’, centred on trade protectionism in the US against Canadian lumber exports and demands to remap BC’s forests away from their traditional priority on industrial values to more strongly reflect environmental and Aboriginal interests, were sparked by the 1980s recession (Edenhoffer & Hayter, 2012). Further, in contrast to the relatively minor perturbations experienced during Fordism, markets for BC’s forest industries have become extremely volatile, and the theme of restructuring both at the corporate and aggregate industry level has become an ongoing mantra. This paper addresses the nature of this lengthy period of ‘permanent’ restructuring with respect to the integrated corporations dominating the industry, especially Canfor which is now the biggest forest company in BC, the second largest North American softwood lumber producer, and the main corporate survivor from Fordist days.

In the midst of the early 1980s recession, several studies, including by industry friendly consultants and task forces (Woodbridge, Reed and Associates, 1984), argued that BC’s forest industries were in a ‘commodity box’ and needed to shift away from a ‘commodity culture’ with a focus on cost minimization and mass production of standardized low-value products to become more innovative with an emphasis on enhancing value. To some extent, a modest growth of small firms processing a variety of secondary wood products reflects this plea (Rees & Hayter, 1996; Reiffenstein, Hayter, & Edgington, 2002). However, among corporate leaders the commodity culture has been entrenched.

Reprint of “Organizational restructuring in British Columbia’s forest industries 1980–2010: The survival of a dinosaur”

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A B S T R A C T

During the Fordist boom decades from the 1940 to the 1970s British Columbia’s forest industries were dominated by large, vertically and horizontally integrated companies and the mass production of standardized, low-value commodities. The severe recession of the 1980s threatened this domination. The resource endowment was in decline, conflicts over forest values became widespread and booming and busting became routine. Corporate restructuring in BC’s forest industry, led by Canfor, BC’s only major forest corporation to survive from Fordist days, has survived by a strategy of cost minimization, mass production, M&A and geographical expansion, rather than pursue more innovative strategies. This paper explains this choice. Conceptually, the analysis draws upon evolutionary theories of the firm in relation to resource industries. Empirically, a case study of Canfor’s restructuring is outlined. The paper argues that Canfor’s highly conservative ‘back to the future’ strategies are consistent with theoretical explanations of vertically integrated firms, and have been reinforced by the emergence of a volatile, uncertain and conflicted forest economy in BC.
MacMillan Bloedel (MB), the dominant firm for many decades, invested in several value-added, product differentiation initiatives that drew on its investments in research and development (R&D), but financial problems led to its takeover, and subsequent dismemberment (Hayter, 2008). Canfor’s strategies, on the other hand, represent the dominant corporate response to restructuring. It has survived by emphasizing cost minimization through rationalization, consolidation and acquisition, and even a degree of vertical disintegration. Indeed, Canfor may be labelled a dinosaur for two reasons—it has been large for a long time, and its strategies reflect a back to the future emphasis on a limited range of commodities.

This paper’s objective is to explain the choices by large forest product corporations in BC, especially as illustrated by Canfor, to remain in the commodity box. Conceptually, the theme of corporate strategy, that recognizes that corporate evolution is not a random walk but follows a common thread as firms progressively develop competitive advantages, is the point of departure for the analysis (Andrews, 1980; Ansoff, 1968). Corporate strategy is itself rooted in closely related resource, evolutionary and institutional theories of the firm, pioneered by Penrose (1959), and in transaction cost analysis, pioneered by Coase (1937). While the evolutionary-resource theories of the firm emphasize that corporate growth builds upon accumulated know-how, competencies and capabilities (Nelson & Winter, 2002; Nonaka, Toyama, & Nagata, 2000), transaction cost analysis stresses choices between different types of (open, relational, internal) markets (Williamson, 1983, 1991). Within economic geography the location dynamics of corporate strategies have long been explored (e.g. Hayter, 1976), and recently there has been especially interest in the spatial-evolutionary trajectories of firms in relation to path dependent behaviour, hybridization and related variety (Majek & Hayter, 2008; Martin, 2010; Maskell, 2001). Typically, the literature on corporate strategies and evolutionary dynamics has focused on secondary manufacturing and service activities. However, large corporations dominate many resource sectors and their behaviour is intimately connected to the specialized communities and regions in which they are located. Moreover, corporate planning in resource sectors is complicated by patterns of exploitation that reduce the quantity, quality and accessibility of resource inputs and vulnerability to booms and busts, especially where export dependence is high. Further, resources are subject to social appraisals and in recent decades society has placed increased emphasis on their non-industrial values, especially in relation to the environment, that in turn require firms to rethink strategies. In BC’s forest economy, economic crisis and the re-appraisal of resource values are closely connected.

This paper’s thesis is that in BC’s forest sector the conservative strategic choices by large corporations to remain in the commodity box have been reinforced, not changed, by the ongoing boom and bust cycles that have characterized the industry since 1980. In the mature stage of the resource cycle, BC’s forest product firms expected fibre supplies to level-off while technological changes, especially the incorporation of micro-electronics, provided possibilities for both flexible mass production and specialization. However, rapid shifts between boom and bust conditions and ongoing trade and land use conflicts have further threatened the forest industry in terms of market access and supply conditions, and created considerable uncertainty for corporate planning. As a consequence, large firms have focused on long-established cost-minimizing conventions and emphasized large-scale primary activities, in association with a degree of vertical disintegration, and with hope-fully fast recovery of invested capital. Further, as foreign firms have divested their subsidiaries in the province, long-standing BC-based firms, including Canfor, have started to invest elsewhere.

Within economic geography, this study contributes towards evolutionary approaches by, exploring how firms in mature industries respond to crisis, a topic recently rejuvenated by Schamp (2005). Empirically, the analysis is part of a broader inquiry into the ongoing restructuring of BC’s forest sector that draws upon data from Statistics Canada and other government sources, a database of forest product activities between 1980 and 2010 constructed from Directory and personal sources, field-work and corporate annual reports (Edenhoffer, 2012). This study particularly focuses on Canfor’s annual reports to provide the data for longitudinal profiles (1983–2010) and the interpretation of the firm’s strategies. The remainder of the paper is in three main parts, beginning with a summary of evolutionary theory in relation to resource firms and the role of crises. Second, selected trends in BC’s forest sector are noted, including with respect to the turnover of large firms. Third, Canfor’s performance since 1980 is examined in some detail.

Corporate strategies, resource firms and crisis

The literatures on corporate strategy and evolutionary (and institutional) interpretations of firm behaviour are closely connected (Foss, Knudsen, & Montgomery, 1995; Rumelt, Schendel, & Teece, 1991). For Ansoff (1968) and Andrews (1980) the idea of corporate strategy (and planning) encourages firms to select an allocation of investments that most effectively utilize accumulated (physical and human) resources and know-how or expertise to meet long run goals related to growth, survival, profitability, and market share. From this perspective, corporate resources and know-how are firms’ as well as industry-specific and their exploitation has to be judged in relation to the opportunities and threats posed by rivals in serving markets. As with business studies of strategy, evolutionary and related theories of the firm in economics focus on actual (rather than abstract) behaviour, especially of large firms, over long periods of time. According to Kogut and Zander (2003, 516) a firm is a “social community whose productive knowledge defines a comparative advantage”. The related notions of ‘competencies’ and ‘capabilities’ (Nonaka et al., 2000; Teece, 2000) and ‘entry advantages’ (Caves, 1971) argue that the evolution of firms is based on the creation, development and transfer of knowledge. Links between corporate strategy and evolutionary/ institutional models of the firm have been further enriched by Williamson’s elaboration of transaction costs that recognizes that markets are not free and that the exchange of goods and services can occur within various institutional arrangements associated with distinctive costs and uncertainties. From this perspective, different corporate strategies are particular forms of market governance that involve judgements not only about efficiency but also of control. Penrose (1959) further recognizes the importance of economies of size and growth in understanding firm evolution and strategies. Thus the knowledge-based competitive advantages of firms are mutually reinforced by various forms of bargaining power and abilities to restrict competition while under-utilized managerial resources available to contemplate fundamental changes in the size and scope of operations.

Corporate planning departments formally institutionalize this capacity. These institutional and strategic interpretations that stress the connected, path dependent nature of corporate evolution are reinforced by considerations of place and space (Hayter & Edgington, 1997; Maskell, 2001). Thus corporate resources and learning typically originate and develop in particular places. Subsequently inter-regional and international growth is shaped by the development of information and bargaining networks, especially in relation to markets, suppliers and rival behaviour, and judged in terms of connections to existing facilities. Strategies of vertical and horizontal integration, and their derivatives, create coherent spatial
as well as evolutionary systems, as long ago noted by McNee (1958). Indeed, horizontal integration is typically associated with the geographic expansion of facilities that exploits the accumulated know-how and marketing power accumulated in established locations while vertical integration strategies are pursued locally or across space to emphasize corporate control over linked operations. Firms may also develop as conglomerates of highly diversified operations, but typically as the result of the acquisition of integrated firms that become subsidiary operations.

In practice, elements of both horizontal and vertical integration strategies are present as firms grow. In general, the literature has perhaps given most attention to horizontal forms of expansion, a focus recently reinforced in evolutionary economic geography approaches with respect to related variety, for example in the wine industry (Patchell, 2011). However, in several key resource sectors such as oil, aluminium and forest products, vertical integration has been the defining characteristic of corporate strategies, becoming especially evident in the Fordist boom decades. Thus, in these resource industries, the dominant firms increasingly controlled resource exploitation through the processing of closely related products and inputs. Corporate control may also extend to final products and distribution systems especially where scale economies are significant.

According to transaction cost analysis, vertical integration offers two sets of advantages (Williamson, 1985). First, it can increase efficiency by reducing the search and negotiation costs of arms length contracting, and finding suppliers or consumers, provided that internal administrative costs are lower. Technical efficiencies may also be achieved by internal control of continuous flow processes, widely prevalent in resource sectors that link different stages of production with significant energy requirements; for example, the continuous use of pulp in paper manufacturing can reduce cooling, baling and reheating charges. Importantly, the linking of integrated stages involving multiple machines with different capacities (‘technological indivisibilities’) is a powerful impulse to increase the size of operations. Second, vertical integration allows firms to reduce the uncertainties of dependency on arms length contracting to mitigate bottlenecks, opportunistic behaviour or the removal of key suppliers or consumers as a result of their acquisition by rivals. These problems are greatest when corporate ‘assets’, in terms of labour skills or plant and machinery, are highly specific (Langlois & Robertson, 1989, 362).

In resource-based value chains during expansionary periods, corporate control over vertically linked production stages allows for the stability of operations, with benefits for local development including in remote communities where resource extracting and primary processing is located. In boom periods, disruptions by short-term business cycle fluctuation are often temporary even if frequent. However, according to Rumelt (1974), asset specificity in capital-intensive operations has meant that the path dependent behaviour of vertically integrated resource corporations is highly constrained within their dominant strategy. Thus to compete with equally large rivals, integrated resource corporations need to invest continually in expensive harvesting/mining and processing sites, even when the rates of return on investment are low from shareholder perspectives (see Watkins, 1963). The international scope of giant integrated firms further reinforces this commitment. As Rumelt summarizes “like the poker player who has so far matched the best of others, the integrated business keeps reinvesting because although winning is improbable, loss is certain if it does not” (Rumelt, 1974, 139). In Porter’s (1985) terminology, such strategies emphasize cost reduction rather than product differentiation as the basic guiding principle to achieve competitive advantage. either with respect to a narrow or broad range of products or commodities. While a strategy of ‘overall’ cost leadership minimizes costs by the mass production of a broad (related) range of products, a ‘focused’ cost leadership aims to be the lowest cost producer in particular niches or segments. However, flexible mass production in which computerized technology allows mass production of different grades and types may blur this distinction.

The implications of conservative, in-grained vertically integrated strategies become brutally exposed during deep-seated crises that signal the need for restructuring corporate and regional production systems. In effect, mutually reinforcing vertical integration among rivals encourages over-supply in boom times but undermines foresight, anticipatory behaviour and the ability to adjust to crisis. Yet in resource sectors restructuring is inevitable as a result of resource cycle dynamics (Clapp, 1998). Even in renewable resource industries, such as forestry and fishing, the powerful tendency to first exploit the lowest cost, highest quality, most accessible resources puts pressure on firms to find efficiencies to offset rising costs of resource exploitation. Frequently, this pressure stimulates internal economies of scale and corporate consolidation resulting in fewer, larger factories. Unfortunately, efforts to renew renewable resources are often too limited or delayed to offset supply downturns – the fall-down effect in forestry when high yielding old growth forests have not been properly or timely replaced through reforestation or plantations. In the case of forest products, new cheaper sources of supply put downwards pressure on prices, potentially creating cost-price squeezes on mature resource regions.

The resource cycle thesis also reminds that resources are culturally defined, subject to social re-assessments. Indeed, over the last several decades environmental imperatives have been an increasing concern, environmental non-government organizations (ENGOs) a powerful lobby and, stimulated by an array of environmental policies, the greening of the economy an insistent, if still problematic trend (Soyez, 2002). Environmental initiatives have particularly important direct implications for resource exploitation. Access to stable, accessible supplies of resource inputs is a sine qua non for corporate vertical integration strategies and traditionally resource policies have been dominated by industry’s needs. Environmental policies, however, privilege the non-industrial values of resources. Moreover, in many resource peripheries environmental concerns overlap (without being the same) with Aboriginal opposition to large-scale resource industrialization. Indeed, many resource peripheries around the world, including British Columbia’s forest economy, have become contested places where environmental, cultural and industrial values clash (Affolderbach, 2011; Hayter, 2003). These conflicts have potentially important implications for vertical integration.

British Columbia’s forest economy in crisis 1980–2010

During the Fordist boom years, BC’s forests remained under public ownership, directly subject to government policy. Following the 1947 Amendment to the Forest Act extensive forest resources were leased out to corporations over long periods of time (up to 25 years and renewable) in return for investments in large-scale capital-intensive facilities, including pulp and paper mills. The building of economic and social infrastructure, along with the appurtenancy regulation that required timber to be used at local processing centres, helped diffuse these investments around the province (Prudham, 2007). Increasingly strict utilization laws also required greater use of timber supplies, including as chips for pulp mills and sawdust for energy generation.

During Fordism, vertically and integrated corporations became dominant and controlled large shares of BC’s timber harvest, and the production of primary or commodity products, such as lumber, plywood, shingles and shakes, pulp and paper plus some mass-produced converted paper products (tissue paper, paper bags,
corrugated boxes). Two BC-based firms, MB and Canfor, and several US-controlled subsidiaries, Rayonier Canada, Crown Zellerbach Canada, British Columbia Forest Products and Weyerhaeuser Canada, were the integrated industry leaders during Fordism within BC (Hayter, 1976; Schwindt, 1979). Several other multinational forest product corporations also established themselves in the province (Hayter, 1981). These integrated firms cut and sorted timber by size and specie to supply affiliated converting operations, while wood chips and other residues from wood processing plants increasingly fed pulp mills as fibre and energy inputs. Indeed, the profitability of firms depended on these flows. It is not easy to measure internal economies of scale, but Schwindt (1979) suggests that MB had grown beyond the size that realized firm-level and plant-level scale economies, including the energy cost savings in continuous flow pulp and paper production. However, consistent with the asset specificity rationale of vertical integration, BC’s forest firms also emphasized control and security over sources of supply and affiliated manufacturing operations, including those located overseas, to ensure the stability of large-scale operations (Hayter, 1976). Further, conventional wisdom in the industry recognized the compensating revenue generating effects between pulp and paper and wood processing activities that tended to experience different business cycle effects.

The recessionary crisis of the early 1980s, however, was not only the most severe downturn in BC’s forest industries since the 1930s’ Great Depression but an evolutionary turning point. Especially in wood processing in the coastal region, the original centre of the industry, lay-offs were extensive, permanent, and marked by the downsizing or closure of many large-scale facilities (Grass & Hayter, 1985). Corporate income losses and debt-equity ratios were worsened because all-time peak production levels in 1979 had stimulated major capital investments that added to over-supply in 1981–1982. Among the integrated dominants, survival became the strategic priority, along with the realization for fundamental restructuring. BC was now a high-cost region faced with declining productivity and technologically obsolete facilities. Moreover, the era of access to large quantities of high quality old-growth timber was coming to a close, formally recognized by the first announcement by the Ministry of Forests of an impending fall-down in harvest levels. The industry was now on the plateau stage of the resource cycle, and in a decade timber supplies were to be profoundly affected by a pine-beetle infestation which started in the early 2000s and until 2008 affected 620 million m³ of timber, an amount almost 9 times the average annual harvest of 69 million m³ (British Columbia Ministry of Forests, Mines and Land, 2011, 11).

The early 1980s recession also heralded the onset of various ‘wars in the woods’ centred around lumber exports to the US, environmental concerns and Aboriginal land claims, all of which are profoundly shaped by public control of BC’s forests (Hayter, 2003). Moreover, these conflicts have had long-term implications for the demand and supply conditions facing BC’s forest industries (authors’ reference). Thus American protectionism has led to a succession of punitive restrictions on lumber exports from BC (and Canada) since 1986, the latest occurring in the 2006 Softwood Lumber Agreement (SLA) between Canada and the US which has imposed an export tax and quotas on lumber shipments, with the tax increasing to 15% as prices drop. Forest policy in BC has also been challenged to accommodate environmental and Aboriginal imperatives. Indeed, conservation areas have been greatly expanded since 1990, and timber allocations have been taken away from the integrated corporations and large tenure holders and transferred to Aboriginal control, community forests, timber auctions and small firms. Stumpage charges were greatly increased in the 1990s, forestry practices reformed to meet environmental goals, and industrial operations have been faced with increased environmental regulations. In summary the public policy environment facing the BC forest industries has been profoundly changed and complicated since 1980.

**Options for corporate restructuring**

The severity of the 1980s recession required BC’s forest product firms to engage in immediate and extensive cost cutting that occurred in terms of job loss among all categories of employees, plant downsizing and closures, the sale of subsidiaries, building and functions, and outright failures (Grass & Hayter, 1989). There was widespread understanding that the era of corporate growth based on access to plentiful supplies of high yield, high quality old growth were over and that with a poorer resource base BC was now a high-cost region, especially with respect to wood fibre but also in terms of labour, energy and other costs. Indeed, from within industry itself there were widespread calls to restructure operations to modernize, improve productivity and shift from low-value commodities to higher value products, based on a greater commitment to innovation (Woodbridge, Reed and Associates, 1984). Among large-scale producers there has been a shift towards flexible mass production that involved developing lumber products for the Japanese market while standard newsprint production has declined in favour of higher priced papers, for example for telephone directories and magazines (Edgington & Hayter, 1997; Hayter, 2008). Value-added, or secondary processed wood products such as engineered wood, remanufactured wood, treated lumber, log homes, window frames, doors, post and poles, mouldings and cabinets have also increased in importance since 1980. Most value-added companies in BC are owner-managed and are small, with less than 50 employees and annual revenue of less than $3 million (BC Ministry of Forests, 2009; Rees & Hayter, 1996). They are mainly located in metropolitan Vancouver and a few other urban centres such as Kelowna. Canfor did experiment with providing governance for a small remanufacturing operation but this was closed and in general, commodity and value-added wood production have evolved in different locations and under different (large and small firm) ownership regime that has been described as ‘culture of two solitudes’ (Woodbridge Associates, 2009, 77).

The options for corporate restructuring had to be considered in terms of a highly volatile, no-growth environment (Fig. 1). Thus between 1980 and 2010 log harvests, and lumber production have fluctuated wildly around a no-growth trend, primarily in immediate response to market swings. While pulp production has been subject to a modest growing trend, it has also been highly volatile. Moreover, as noted above, the rules governing access to US lumber markets have been compromised by various US restrictions on exports since 1986 while the cost, availability and uncertainty of timber supplies and associated forest management have been greatly increased. The pine-beetle epidemic has added wood fibres supplies in the short run but these supplies are low value and harvests will be reduced even faster in the near future. Also over the last decade, the Canadian/US dollar exchange rate has been relatively high, penalizing Canadian exporters that are paid in US funds. Thus for a variety of reasons profitability has been hard to sustain in BC’s forest economy. Indeed the choice for many integrated dominants, including foreign firms, has been to sell their operations and exit the industry or at least BC. Of the largest ten integrated firms in BC in 1975, eight, including six foreign firms, no longer operate in the province. While several other foreign firms entered and exited BC since 1980, the level of foreign control has

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1 In the following, commodity products of higher value (such as finger-joints or engineered wood) are not included in the value-added segment.
declined and in 2008 the largest five firms were all largely BC-based and owned (Table 1). While Canfor is the only survivor among the group of Fordist dominants, reference to its strategies since 1980 is instructive of key industry-wide trends.

**Canfor 1980–2010: restructuring as retrenchment**

Canfor began operating in BC in the late 1930s by entrepreneurs, who were Jewish and who had fled Austria/Germany to escape persecution. During Fordism the firm grew rapidly, initially in the coastal region centred on Greater Vancouver, in lumber, plywood, and related wood processing activities such as panel boards and particle boards while the Howe Sound Pulp mill was also purchased in the 1950s. In the mid-1960s, Canfor invested in the northern interior by acquiring timber tenures that supplied pulp mills in Prince George, initially established as two new-site joint ventures with (different) foreign firms. A sawmill base was established in the region and then Canfor built further sawmills in north-western Alberta. During Fordism, Canfor saw itself as a Western Canadian company, especially focused on BC, and expressly indicated no interest in international expansion at that time. It did operate a small (3–5 person) R&D group that was located at one of its Vancouver area wood processing plants. Sales offices existed in Vancouver, Montreal, London, Brussels and Tokyo. As with other integrated dominants its profitability and survival was threatened by the 1980s recession.

**Canfor’s strategies 1980–2010**

The last three decades have been a period of tumultuous change for Canfor. Consistent with industry-wide trends production and sales have been highly volatile, as have rates of return on investment with income losses experienced 1982–1985, 1991 and 92, 1996–1998 and 2007–2009 (Fig. 2). Employment has similarly fluctuated but while the firm has become bigger, by a factor of three in terms of sales and production, driven by major cycles of investment, employment levels in 2010 were substantially (50%) less. Moreover, the basic geography of Canfor’s operations has been radically changed (Fig. 3). Thus in 1980 Canfor was a coastal region giant that had established an important presence in the north-central interior of BC (and NW Alberta), mainly involving joint ventures. In 2010 Canfor’s operations were almost entirely concentrated in the interior, its joint venture partners in two Prince George pulp mills had been bought out in 1978 and 1985, and only its control functions remained in Vancouver. The strategies that have restructured Canfor’s operations can be classified into three periods. First rationalization dominated the 1980–1988 period, when corporate survival was at stake. Second, from 1989 until 2005 Canfor emphasized the consolidation and expansion of production in BC, ultimately remaining a large-scale commodity producer. Third, in 2006 Canfor embarked on a geographical expansion of

![Fig. 1. BC forest industries: harvest and production of major commodities, 1980–2010. Source: BC Economic and Statistical Review and BC Financial and Economic Review.](https://example.com/fig1.png)

**Table 1**

Top ten forest companies in BC, selected years (measured by their share of timber tenure. Foreign controlled firms in bold).

<table>
<thead>
<tr>
<th>Rank</th>
<th>1975</th>
<th>2010</th>
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<tbody>
<tr>
<td>1</td>
<td>MacMillan Bloedel</td>
<td>Canfor</td>
</tr>
<tr>
<td>2</td>
<td>BC forest products</td>
<td>Western forest products</td>
</tr>
<tr>
<td>3</td>
<td>BC Cellulose</td>
<td>West Fraser Mills</td>
</tr>
<tr>
<td>4</td>
<td>Canfor</td>
<td>Tolko</td>
</tr>
<tr>
<td>5</td>
<td>Northwood</td>
<td>Interfor</td>
</tr>
<tr>
<td>6</td>
<td>Crown Zellerbach</td>
<td>Tembec Industries</td>
</tr>
<tr>
<td>7</td>
<td>Rayonier</td>
<td>Louisiana Pacific Canada</td>
</tr>
<tr>
<td>8</td>
<td>Weldwood</td>
<td>RFP Holdings</td>
</tr>
<tr>
<td>9</td>
<td>Eurocan</td>
<td>Abitibi Consolidated</td>
</tr>
<tr>
<td>10</td>
<td>Tahsis</td>
<td>N/A</td>
</tr>
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*BC Cellulose was a BC government owned corporation that took over a bankrupt US owned subsidiary until other owners acquired the still failing business. West Fraser Timber is owned by a family with residences in Seattle as well as Vancouver. However, its operations are in BC and head-office meetings are held there.

operations beyond Western Canada to begin a new phase in its restructuring.

In the early 1980s, in response to severe recession conditions and significant income losses, Canfor sold three large sawmills and a plywood mill in Greater Vancouver, downsized its head office and went public for the first time in 1983 to obtain vital financing ($133m), although the key families retained controlling interests at that time. From 1988 on, the Howe Sound pulp mill was modernized as joint venture with a Japanese company, significantly expanding its capacity. In addition, some higher value products were introduced, such as kraft paper and structural lumber grades for the Japanese market. Importantly, rationalization and the closure of facilities has remained an important theme in the subsequent corporate strategies of expansion and consolidation that began in the booming market conditions of the late 1980s and ended with the collapse of another boom in the mid-2000s. Canfor’s growth and consolidation strategies that focused on the north-central interior of BC (and north-western Alberta) and that were kick-started by the market boom of the late 1980s, featured major acquisitions, investment and modernization at selective sites and closure of others, and creation of a new ‘super’ sawmill at Houston. Thus Canfor acquired two important BC-based lumber firms, Balco in 1989 and Slocan in 2004 whose operations, including timber rights, were selectively closed and integrated with existing operations, associated with substantial job losses. Moreover, the Competition Bureau forced Canfor to sell another facility to lessen its dominance in the region. Similarly, the Prince George-based pulp producer, Northwood was acquired in 1999, along with its timber rights and in 1978 and 1985 Canfor bought out its joint venture partners in two other Prince George pulp and paper mills.

Fig. 2. (a) Canfor: sales, employment and investment trends 1979–2010. (b) Canfor: rate of return on capital employed (ROCE). (c) Canfor: sales by geographic destination. Source: Canfor annual reports.
In support of these operations, Canfor established (1997) a $20m stand-alone R&D centre in Vancouver with an operating budget of $5m per annum that focuses on improving pulp and paper making efficiencies and grades. Meanwhile, Canfor phased out several once important (mass-produced) commodities, plywood, shingles and shakes and hardboard. In the late 1990s, corporate losses led to the hiring of a new CEO, and an explicit strategy that emphasized the low-cost production of dimension lumber and pulp; stand-alone secondary wood processing facilities were closed. After 2000, Canfor also faced the problem of how best to use pine-beetle damaged wood in its sawmills, and the waste chips produced in its pulping operations. Industry-association R&D, as well as its own R&D group, has helped meet this challenge. Modernization and low-cost efficiency were the guiding principles of capital investments. Indeed, from 1998 to 2002, Canfor spent more than $600 million for acquisitions, $405 million in capital investment plus $20m for its R&D facility. Several sawmills in the Central Interior were upgraded and modernized to use pine-beetle infested wood in the area while the Houston sawmill was expanded to an annual capacity of more than 600 million board feet, which made it the largest sawmill in the world. Then in 2005 a major new oriented strand board (OSB) plant was opened in north-eastern BC, along with the modernization and expansion of another OSB mill that had been acquired from Slocan. All manufacturing operations in Greater Vancouver were closed. In a third phase of its restructuring, Canfor’s strategy has sought to consolidate its role as low-cost commodity producer, from 1998 to 2003, pulp conversion cost was reduced from $344 to $331 per tonne and lumber conversion cost decreased from $130 to $122 per Mfbm. Geographically, the company diversified its operations away from western Canada. Earlier, in 2004, Canfor had purchased a sawmill in Quebec but its geographical expansions were especially highlighted by acquisitions of sawmills in North and South Carolina in 2006 (Fig. 3). As part of the 2006 SLA, Canfor had received $717m that represented duties illegally collected by the US from Canfor’s exports to the US between 2001 and 2005. In effect, this refund financed Canfor’s US expansion. The US had become Canfor’s most important export market from the early 1990s on, peaking in 2005 and 2006. However, in 2007, the global financial crisis hit. Canfor suffered a devastating loss of $360 million, compared to record earnings of $470 million in the previous year. Growing exports to Asia, reflected by the opening of a sales office in Shanghai (2005) could not offset this loss.

In 2003 Jimmy Pattison, the owner of a BC-based conglomerate (the Jim Pattison Group), acquired 25% of Canfor’s shares, and became its largest shareholder. In the following years, in connection with tumbling share prices and a major power struggle about the company’s future with Stephen Jarislowsky (who controlled 18% of the shares) Pattison established control. Jim Shepherd resigned as CEO and was replaced by Jim Shepard, who, supported by Pattison, immediately instituted a radical cost-cutting strategy. Employment was reduced by 35%, from 7300 in 2006 to 4700 in 2007. Head-office payroll cost was reduced by 25%. CEO compensation decreased by 25% and the directors’ fees by 33%. This scenario was not unlike what happened to Canfor in the recession of 2001 and 2002.

Fig. 3. Canfor major operations 1983–2010. Source: Canfor annual reports.

2 This is not a typo. The two names are indeed quite similar.
Table 2
Canfor's production facilities in BC and Alberta: Total capacity, selected years (number of mills in brackets).

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<tbody>
<tr>
<td>Lumber (millions of board feet)</td>
<td>1198 (13)</td>
<td>1535 (12)</td>
<td>2816 (14)</td>
<td>5371 (15)</td>
</tr>
<tr>
<td>Panels and boards (mill. of square ft. 3/8&quot; base)</td>
<td>374 (4)</td>
<td>40 (1)</td>
<td>167 (1)</td>
<td>933 (3)</td>
</tr>
<tr>
<td>Pulp (000 tons)</td>
<td>552 (4)</td>
<td>750 (5)</td>
<td>1351 (6)</td>
<td>1614 (7)</td>
</tr>
</tbody>
</table>

* For 1983, 1990 and 2000 the figures refer to plywood and panels. In 2005 the figures are dominated by two OSB mills.

Source: Canfor annual reports.

the early 1980s, following the boom of the late 1970s. By 2011, Patterson had acquired 35% of Canfor's shares, and the founding Bentley-Prentice families had sold almost all of their shares and no longer had influence in the company.

Summary reflections on Canfor's restructuring 1980–2010

Canfor’s restructuring since 1980 is consistent with Rumelt’s (1974) characterization of vertical dominants as highly conservative firms whose structures and attitudes reinforce commitments to existing main lines of business. In Porter’s (1985) terms, Canfor's strategies are cost dominated, seeking cost leadership, admittedly over a narrower commodity range than before, perhaps with modest shifts towards a cost focus strategy. Shifts in the geographical scope of this strategy are more profound. Apart from its control functions Canfor has divested its operations from its coastal roots and shifted its focus to BC’s Interior (and Alberta) while the signs are that diversification in North America outside of western Canada is now likely. More specifically in BC Canfor’s back to the future restructuring has left the firm with much larger facilities in terms of capacity that are focused in the interior rather than the coast (Table 2). In tandem, overall employment has been significantly reduced and while pulp and lumber remain the dominant commodities, OSB production has replaced plywood and related boards, and there is no more production of shingles and shakes. Profitability became a key concern in 1980, and it was in 2010. Canfor remains an integrated dominant but its survival has been a roller coaster ride shaped and buffeted by a complex range of factors. Several further summary reflections may be offered in this regard.

First, Canfor's strategies remain emphatically focused on cost-minimizing and mass production. Computerization has permitted internal economies of scale and size are key. As David Emerson, Canfor’s President and CEO, stated, “[t]hese mills are part of our future in British Columbia” and that “[t]his investment reflects Canfor’s focus on high return capital projects that fit our overall strategy to enhance the productivity of our mills and lower our conversion costs. [...] By ensuring that our mills are among the most efficient in the world, Canfor is in a position to run our operations continually and serve our customers consistently. This, in turn, creates stability for contractors, suppliers, workers and the community tax base[4]. In order to further reduce costs and rationalize, third shifts were introduced in a number of sawmills to take advantage of economies of scale, “[m]aximizing capital utilization and efficiency” (Canfor, 2002, 7). The same philosophy has driven investments in pulp and paper. The nature of its integration has been modified as for financial reasons the pulp and paper operations are managed as a separate company, and all logging activities are now contracted out. Nevertheless Canfor remains integrated in that it still has large leased timber supplies, chips and waste products are sent to affiliated pulp and paper operations, and it maintains global distribution networks. Further, volatility is still considered a ‘normal’ part of business. “History shows that every once in awhile, the market experiences a downturn. But, history also shows that the market has always demonstrated the resiliency to rebound. Well beyond previous levels in fact” (Canfor, 2001, 1).

Indeed, Canfor’s strategy of cost-minimization specializing in the low-cost production of a limited range of selected commodities was the result of conscious choices. All its operations in the high-cost metropolitan Vancouver have been closed, including its small-scale operation in remanufacturing. Instead commodity production has been concentrated in relatively few facilities, including two new ‘super-sawmills’ while several others have been closed, often following the acquisition of rivals. Value-added plants acquired in the various takeovers have been sold or closed soon afterwards while Canfor also withdrew all its interests from the Kyahwood Forest Product joint venture with the Moricetown Indian Band in Smithers. Further, Canfor executives felt that MB’s investment in large-scale R&D and product innovations had not paid-off, and while Canfor has an R&D facility, it is small-scale and focused on reducing costs in pulp production. Second, the wars in the woods have constituted major sources of uncertainty to Canfor’s planning, and additional costs to its operations. ENGOs are mentioned in the reports from the late 1980s on as possible threats for business. “The forest industry in general is becoming increasingly subject to the pressures of the growing environmental awareness felt throughout the industrialized world. These pressures affect operations and [...] there is considerable uncertainty regarding new environmental standards that may arise and the costs of meeting these new standards” (Canfor, 1989, 28). Similarly, the reports refer to Aboriginal land claims. “Native land claims in Canada present a significant risk and uncertainty to the security of supply of timber in the forest industry” (Canfor, 1990, 29). In response, the company emphasized its “commitment to cooperation with the native community” (Canfor, 2000, 5), which led to several joint ventures with Aboriginal bands, and it became a member of the Coast Forest Conservation Initiative (CFCI) when it was initiated in 1999. CFCI was a collaboration of five BC-based forest companies seeking dialogue with ENGOs about sustainable development, conservation of Coastal forests and the future of the forest industry. In addition, several “green energy” projects were launched to save costs and respond to environmental concerns. From the early 2000s, Canfor has begun to certify its operations according to the standards required by the International Organization for Standardization (ISO) and by the Canadian Standards Association (CSA). In 2002, 73% of Canfor’s harvest volume was certified according to the Sustainable Forest Management (SFM) criteria of CSA; in 2004, 91% of harvest reached SFM standards.

Indeed, provincial forest policy has been continually changed, especially since 1990, the last major shift being the Forest Revitalization Plan in 2003. The main components of the Plan were a 20% take-back of forest tenures from major forest licensees, the establishment of a new timber pricing system; and the elimination of constraints such as minimum cut controls, penalties for mill closures, consent requirements for tenure transfers or changes of control, limitations on consolidation and subdivision of forest tenures and appurtenances.

Similarly, the trade conflict between Canada and the US took severe toll on Canfor’s earnings. In 2001, “[n]ot only did Canfor expend $7.2 million on legal and other costs, the dispute also cost Canfor thousands of hours of management time to deal with investigations, complete questionnaires and the verification processes.
Canfor’s results were negatively impacted by recording a provision of $45.7 million for countervailing and anti-dumping duties levied by the U.S. Department of Commerce. Had the duties not been levied, Canfor’s earnings would have been $0.67 per common share, instead of the reported $0.27 per share in 2001” (Canfor, 2001, 31). In 2002, a duty of 25% was imposed on softwood lumber exports to the US, leading to a cost $105 in cash duties and $9 million for related legal fees (Canfor, 2002, 28), reducing net profit to just $6 million. While Canfor received $717m in the SLA duty refund it has continued to pay an export tax on lumber exported to the US.

Third, in one important respect, Canfor’s basic corporate philosophy has changed. In particular, its self-characterization has a ‘western Canadian’ company that under-wrote its strategies during the Fordist boom years, has been modified. Such diversification is a response to the high costs and uncertainties of forest product investments in BC. Fourth, Canfor has survived, even as a dinosaur. Indeed, it is not easy to identify alternative strategies given its accumulated capabilities and assets and the volatility and complexity of its business environment. Timber rights, specialized capital-intensive facilities and local sources of expertise are not mobile, and in-situ restructuring has been a central imperative. Moreover, MB, the big BC rival of Canfor failed. In this regard, at least part of Canfor’s resiliency relates to the fact that it established a significant presence in BC’s interior while MB did not. Wood fibre supplies in the interior have been cheaper and more abundant than on the coast while environmental and Aboriginal conflicts have also concentrated there. Another reason for Canfor’s success in relation to MB may that it did not engage in expensive attempts to innovate and differentiate its product line. If so, this raises difficult policy questions for BC. Meanwhile, Canfor’s dinosaur strategies may well continue to pay off, especially as the Chinese markets are becoming increasingly important and if presently low value they do compliment the high value but limited Japanese market, and the middle value but highly politicized US market.

Conclusions

As Schamp (2005) reminds, there have been widespread pleas round the globe for public policy to encourage firms in mature and declining high-cost industries to innovate and add value to become more competitive and create jobs. BC’s forest economy is a case in point. Thus the early 1980s recession exposed BC’s forest industries to be high cost and obsolescent and several government, academic and industry reports urged a restructuring along value-added, product differentiating lines. Provincial governments encouraged such trends by increasing the price (‘stumpage’) of timber harvested on crown lands (with the idea that this would stimulate firms to add value), re-allocating timber from corporate timber leases to market auctions and community forests (as well as to Aboriginal groups), and by support for small firms. In response, a population of small value-added wood processing firms has emerged. However, this growth is geographically concentrated, especially in the Greater Vancouver area and has only modestly offset overall job losses while large corporations, led by Canfor, have favoured strategies of consolidation and rationalization directed primarily to reducing costs in fewer, large facilities. Trade, environmental and Aboriginal conflicts over forest use seem to have exacerbated rather than reduced this conservatism.

Admittedly, in BC as elsewhere, pleas for mature industries to move up the value-added chain often beg questions about the market potentials of such initiatives, their location conditions, the supply of entrepreneurship, and what innovation priorities should be pursued and how. Further, such challenges to industrial innovation need to recognize that public policy priorities regarding BC’s forests have been transformed. Bearing in mind that BC’s forests are largely publicly owned, government policy is now directed towards meeting a more diverse range of non-industrial as well as industrial goals that incorporate environmental imperatives and those of local communities, especially Aboriginal peoples. How can more diverse goals be met and can they be reconciled in cooperative ways? What are the most appropriate roles for industry in this new diverse forest policy environment? How can science and innovation systems be developed to meet a diverse forest policy? In the context of dwindling fibre supplies available to industry which firms and communities are to be favoured? Should the industrial use of forests be entirely rethought, for example, to become a source of bio-energy? These and related questions are starting to be asked around themes such as remapping, stakeholder models, environmental bargaining and GIS-methods (e.g. Affolderbach, Clapp, & Hayter, 2012). They pose important tasks for applied geography, and are likely to have relevance in other resource peripheries.

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