AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Scandinavian Forest Economics
No. 43, 2010

Proceedings
of the Biennial Meeting of the
Scandinavian Society of Forest Economics
Gilleleje, Denmark, May 2010

Finn Helles and Petrine Steen Nielsen (eds.)
Copenhagen

Failed strategies, external events or just life in the global markets? Discussing the downturn of the pulp and paper industry in Finland

Olli Saastamoinen
School of Forest Sciences, University of Eastern Finland

Abstract
After the recession of early 1990s the major pulp and paper companies in Finland engaged in further consolidation and widened their earlier "European" investment orientation into "global" business strategies by mill acquisitions in North America and elsewhere. In the search for better profitability, the shareholder value paradigm was gaining strength as a business model. Profitability peaked in 2000, but then turned downwards as it largely did also globally. Product demand, prices and costs developed unfavourably. Global competition increased and problems of excess capacity became more severe, in particular in Europe. In Finland the strategies of belt tightening and leaning, ultimately called "survival strategies", were adopted. The pace of mill closures, production breaks and personnel lay-offs, started in 2005 and has lasted until today. The paper discusses what went wrong and can be learnt, if anything, as the survival test seems to be passed, profitability of paper companies is improving, and shareholders are gradually gaining back what belongs to them.

Keywords: Forest industries, employment, consolidation, political economy

1. Introduction

Changes are inevitable in the economies. The economic history of the Finnish forest industries (Kuisma 2006) demonstrates that there have been changes due to economic cycles, market demand, technological development or profitability, and competition pressures. There have been small gradual changes and large, unexpected, one-time "external" changes, influencing the current state or the future perspective of the forest industries. In the course of time, the changes, negative or positive, can appear close to each other or overlap. Eventually, negative changes can cause a spiral of cumulative hardships while the opposite changes may bring cumulating chain of successes.

Forest industries belong to the cyclical branches of economy among which production varies more than for the average of all industries. When national and world economies are developing favourably, house building and other construction increases, needs of packaging materials and advertisements grow, demanding more sawnwood, paper board and paper. During

the harder times, the above activities are reduced more strongly than other parts of the economy, consequently causing significantly lower demand and prices for the products of forest industries. Early changes in clients' stocks due to anticipated higher or lower prices of forest products accelerate the impacts of economic cycles in forest industries. "Bust and boom" has been part of everyday life in the forest industries and changing cycles do not come as a surprise.

The reasons for the recent drastic downturn of pulp and paper production in Finland are many and they are intermingled. This paper is an attempt to discuss and analyze some of the reasons which have weakened the steady backbone of the forest sector. The approach is qualitative and the paper does not aim at giving a systematic and balanced approach: rather it tries to pinpoint specific aspects requiring more consideration or research. The paper starts with describing the dimensions of the downturn and the most immediate factors behind it. It considers relevant strategies of pulp and paper industries and also tries tentatively to relate the recent past and to-day's situation to actual phenomena discussed in the framework of political economy of the global financial capitalism. The concepts and assumed connections remain at the stage of early identification but it is hoped that it may inspire further research or discussion.

2. The downturn

2.1 Profitability

The profitability of Finnish pulp and paper industries, as forest industries elsewhere, was low in the 1990s, but improved during the latter half of the decade, and peaked in 2000 (Juslin and Hansen 2002; Diesen 2007). Return on capital employed (ROCE; figures include also wood and wood product industry, but its share of total turnover is only one quarter, separate figures for pulp and paper are not available) was 16.5 % (Diesen 2007), but has since then declined sharply, being 4.6 % in 2006, 3.8 % in 2007, - 2.5 % in 2008, and c. -2 % in 2009 (Finnish Forest Industries 2010).

2.2 Capacity, production and personnel reductions

The pulp and paper industry is characterized by being capital intensive and having significant scales of economies. It has been a long trend in Finland that the larger, integrated mills and most advanced paper machines substitute the older and smaller ones. New investments have always increased production. Technological progress has been at the core of the past strategies of pulp and paper industry and in the development of a single industry into a complex network – a forest cluster - of several interrelated industries, companies and supporting activities (e.g. Reunala et al. 1999; Häggblom 1999; Saastamoinen 2000).

While paper production continued to grow until 2007, the pace of mill closures, production breaks and personnel lay-offs, starting around 2005 and lasting until today, has been unexpected in volumes and speed. It has shaken the long lasting foundations of the whole society and is perceived as shocks in the economic, social and mental life of the country, in particular in the localities and regions around the closed mills.

Mill closures have reduced production capacity by 1.9 million tons between 2008 and 2010. The production decreased from 14.3 million tons in 2007 to 10.6 million tons in 2009, but is expected to be back at 12.1 million tons in 2010 (Metla 2010). The export decreased in the same way, while the most drastic change occurred in newsprint export, a decrease of 74%. The mostly cited assessment predicts that by 2020 the pulp and paper production in Finland would be one third lower than in 2007, when the production peaked (Hetemäki and Hänninen 2008).

While the estimate is drastic, and may after the ongoing rebound be regarded by some as overly pessimistic, even more drastic change has taken place in employment.

In 2002, the pulp and paper industry (without production of converted paper and paperboard, 5000 persons) employed 35 000 persons. The prediction for 2010 is 16 700 persons (Finnish Statistical Yearbook of Forestry 2009; Metla 2010). Since 2002, the number of persons in pulp, paper and paperboard production has halved and decreased by 43 % from 2007 only. Not all changes are due to mill closures but perhaps half of the reduction is the result of rationalization operations and domestic outsourcing.

While the production is anticipated to grow also in 2011, the number of persons employed will not increase (Metla 2010).

3. The external reasons for the downturn

3.1. Decreasing trends of product prices

The equation of profitability in its basic form is simple. The low profitability is due to the declining product prices and increased prices for inputs such as labour, raw materials and energy (Diesen 2007).

Siitonen (2003) found that in general large pulp and paper producers have suffered from constantly declining end-product prices in real terms for the past 20-30 years.

For example, in Germany newsprint and mechanical printing paper real prices have declined by roughly 1%/yr between 1990 and 2006. (Pöyry 2006). A 1%/yr decreasing trend of pulp real prices has occurred between 1970 and 2006. (Diesen 2007).

The unit export prices of paper and paperboard have declined in real terms since 2001 and reached their lowest levels in 2008. Since then, there has been a modest increase in paper prices and a bit more in paperboard prices. Pulp prices have decreased since 2000 and reached a bottom level in

2009, but had a significant estimated rise (c. 50 %) in 2010 due to strong demand in China (Metla 2010).

Pulp and paper is known to be a "bust and boom" industry. The decreasing trend of real prices 1970–2006 includes dramatic price rises in particular between 1985 and 1996, where prices went up or down four times with two- to threefold price changes (Pöyry 2006; Diesen 2007).

3.2. Rise of production costs

Stumpage prices of pulpwood in real terms in Finland were declining from 1999 until 2005 but increased slowly during 2007, drawn up by high log prices. During 2008 and 2009, prices went slightly down but have been a bit higher along the recovery of the pulp industry in 2010.

Forest industry has increasingly imported roundwood from Russia (about 15-16 mill. m3/yr) which has become of almost strategic importance for the industry, not only due to volumes but also due to the impacts on domestic wood prices. The decision of Russia to increase the export tariffs for roundwood (now raised to 15 €/m3 for coniferous wood and birch logs, later to 50 €/m3) had a substantial impact on the wood supply perspective for the Finnish mills, in particular those located near the Russian border. The increase of wood export tariffs and a consequent need to reorganize roundwood flows in Finland has been mentioned among the reasons for some mill closures.

In 2009, the CEO of Stora Enso announced that high wood prices in Finland are the major short term obstacle (the industry refers to mill prices). Stora Enso has been transferring production to Sweden and adopting long production breaks in Finland (Kauppalehti 19 March, 2009). Other rising material costs, besides wood, in the pulp and paper industries are due to the increased use of chemicals, minerals and other substances. Their relative cost share has been increasing, being already nearly half of the wood costs (Mutanen 2010).

Another focus has been the labour costs. Paper workers are known to have the highest wages among Finnish workers. A threat of strike in the capital intensive process industry does matter. In 2005, there was a long labour dispute, and a threat of a strike by workers was responded with lockout by the employers. As cost saving operations and mill closures have substantially reduced labour input in pulp and paper industries, the labour cost share of costs has rather been reducing (Mutanen 2009).

3.3 Changing currency exchange rates and capital costs

Exchange rates have a substantial impact on the relative cost competiveness of companies situated in different currency regions (Diesen 2007). During Finland's "bank crisis" and the subsequent economic recession of 1991-1993, the Finnish Mark was devaluated. When Finland joined the European

Union and the European Monetary Union, the fixed FIM/EUR ratio gave some export advantage for Finnish industries. As USD started to weaken in regard to Euro, this currency advantage was gradually lost. The recent devaluation of the Swedish Crown in regard to Euro has in turn given Sweden a currency advantage.

As a capital intensive industry, capital costs are a significant in the pulp and paper industry, and also differences in the interest rates of financing have impact on profitability. However, for the pulp and paper industry and Finland as a whole, the European Monetary Union has meant stabilization and lowering of interest rates, and has thus apparently been beneficial to the industry.

The threat of the rise of capital costs is thus principally related to the overall trend of decreased profitability and the financial position of individual companies. Corporate credits and the risks involved are analysed and rated by independent credit rating organizations. Weakening profitability and increasing debt/equity ratio result in lower ratings and higher costs of borrowing.

3.4 Overproduction

According to Diesen (2007) there are two major ways to combat the trend of low profitability. The industry has in some cases tried to improve its capacity structure by investing in new and efficient machinery. This has increased the production and in many cases caused oversupply, which has in turn depressed prices and profitability. Although Diesen (2007) does not mention it, this used to be a part of thinking in Finland.

Another path selected by some companies has been to curb investments and close capacity to better meet declining demand. This strategy has been selected in North America in particular. As a consequence of the low investment level, asset quality has deteriorated, contributing to lower competitiveness and declining profits (Diesen 2007). "A peat land there and a wetland here" says a Finnish proverb.

"The bloody price competition caused by the substantial overcapacity during this millennium is an advantage for some in the value chain – in the short term", said the CEO of Metsäliitto. He apparently referred to the publishing companies and other clients of paper industries.

EU funding for new mills in Europe and the strict EU competition rules, preventing necessary national or transnational restructuring, must also be mentioned.

3.5 Financial and economic crisis

Due to low profitability, Finnish industry was not well prepared to meet the financial crisis and the general economic crisis it caused. Besides the consequences in profitability, production and employment given earlier, the stock

prices went sharply down, as elsewhere. The third company in size, M-real was hit hardest. Its stock price was c. € 5 in early 2007 and dropped to € 0.20in 2009, being on the verge of bankruptcy. However, thanks to divestments, support of the parent organization composed of forest owners, and the successful financial restructuring under the new CEO of Metsäliitto, bankruptcy was avoided. The share has recently risen to the level of € 2.5 – 3.

4. The strategies

4.1 Did consolidation strategy work?

In early 1980s, the four biggest companies in Finland accounted for 40% of the forest industry turnover. After restructuring about 2000, three bigger companies were left accounting for 90% of production (Saastamoinen 2001).

In 1998, state owned Enso Oyj and Swedish Stora, through a voluntary merge, formed a new corporation named Stora Enso, where the Swedish Wallenberg family and State of Finland were the main owners.

The maturing of the markets was also a reason as well the fact that in the pulp and paper industry the acquisition costs per ton were less than half of the replacement costs (Crawford 1999). Furthermore, an acquisition does not increase supply as the new capacity does.

Yet, an important reason for international consolidation has been the search for market power in selected product groups. Mergers are the quickest way to gain market power. Consolidation and improved economies of scale and scope were considered keys to raising the level of profitability in the sector (Moen and Lilja 2000).

Looking back, one cannot but conclude that the consolidation strategy did not fulfil the expectations. It did not prevent overproduction, did not give market power for pricing, nor improved profitability. What can be assumed is only that without consolidation things may have been even worse.

4.2 Globalization strategies

Have the globalization strategies of Stora Enso and UPM-Kymmene succeeded or failed? One can find many common features in their international activities, including the strong presence in different parts of Europe, which still remains their major market area. Both companies have been working quite a long time in Asia, where both have retired from their very different Indonesian activities. In China, UPM's presence is stronger, but Stora Enso is also active there. Both have profitable pulp mill operations in Latin America and both are familiar with failures in North America.

Mill acquisition strategies in USA and Canada have resulted in huge losses for Stora Enso and also substantial but much smaller losses for UPM-Kymmene. In particular, Stora Enso paid € 4.9 million for the company it

bought and got c. € 2 million when it sold it in 2007 (HS International edition 25.20.2007).

In 2000, UPM's North American operations acquired a pulp and paper operation in New Brunswick, Canada. The operations were closed in 2007. UPM still has a paper mill in Canada which is apparently doing quite well. In all UPM, has production plants in 15 countries and it employs approximately 23,000 people worldwide. The sales of the company was c. € 7 billion in 2009 (http://www.upm.com/en/about_upm/).

The new fine paper machine 450,000 tons was completed in Changshu, China in 2006. The capacity is 800,000 tons/yr and investment USD 470 million. Both Stora Enso and UPM Kymmene have profitable large pulp mills in Latin America.

UPM's Chudovo Plywood Mill has been the pioneer of the modern plywood industry in Russia. Stora Enso has three corrugated paperboard and two sawmills in Russia.

Stora Enso is a global paper, packaging and wood products company producing newsprint and book paper, magazine paper, fine paper, consumer board, industrial packaging and wood products. Stora Enso's sales totalled € 8.9 billion in 2009. The Group has some 27,000 employees in more than 35 countries worldwide (http://www.storaenso.com/about-us/Pages/welcome-to-stora-enso.aspx).

The wide geographical presence in the major market and fibre supply areas is evidence that strategies are working and probably able to respond to the major challenges, ongoing and coming.

5. Some aspects of political economy of pulp and paper

5.1 The rise and fall of the role of the banks in forest industries in Finland

According to Kuusterä (1999) the general practice when characterizing the relationship between an enterprise and financial backer is to speak about the Anglo-Saxon and the Continental model. The former was characterized by the dominant role of funding through direct income or shareholders' equity. The Continental model originates from Central Europe, especially Germany, where financing was largely based on borrowed capital, i.e. loans granted by banks. As a consequence, the banks retain a tight hold on the companies that they finance (Kuusterä 1999).

The beginning of pulp and paper industries in Finland followed mainly a mixed model based on share capital and companies' internal incomes and holdings. During the worldwide depression, the banks gained a firmer grip on the companies. Reorganization and restructuring occurred, and groups of companies dominated by specific banks began to take shape (Kuusterä 1999).

The tight regulation of banking adopted during the war years continued in Finland nearly four decades. Interest rates and the flow of foreign capital were regulated. Taxation system had the effect that it was cheaper to borrow capital from the banks became than from the stock markets. The direct ownership by banks increased and the situation began to resemble the German bank-centred model. The system maintained low (sometimes negative) interests rates for forest industries ensured high investments and technological advantage and stability, while also promoting elements of inefficiency and structural inflexibility (Kuusterä 1999).

The deregulation of the financial markets quickly altered this stable situation. A period of rapid restructuring was first focused on old family business. The second stage involved extensive rearrangements in the forest industries, with banks and allied insurance companies being in charge. At that time the domestic financial sector exercised the firmest grip on the companies.

This stage was short-lived. The internationalization of Finnish forest enterprises also meant that the responsibility for their financing was to an increasing degree transferred to the international finance markets. The repealing of restrictions on foreign ownership of Finnish shares in 1993 marked the most significant turning point in the history of industrial ownership structures in Finland. Significant proportions of the share capital of many large export companies were transferred to the ownership of pension and investment funds abroad (Kuusterä 1999).

5.2 Recent discussion on shareholder value and capital market intermediaries

Lazonick and O'Sullivan (2000) have argued that the ideology of shareholder value, or in other words the pressure from activist investors, has in USA case changed giant firm priorities in the 1980s 'from retain and reinvest' (economic growth and expansion) to 'downsize and distribute' (reduction of the production and the flow of earnings to the shareholders).

In the UK and USA, shareholder value for owners has become a more explicit objective through the disciplinary interactions of analysts and fund managers with senior corporate executives who are then under pressure to deliver narratives of corporate purpose and achievement (Froud et al. 2006).

However, after analyzing the mixed performance of shareholder value thinking, Leaver and Johal (2007) suggest that it is not much of a meaningful concept or definite programme of action but rather a social rhetoric that puts management on an often quixotic quest for value, where narrative and performance elements are only loosely aligned with numbers, and the stock market runs on narratives as much as discounted future values.

This seems to fit well the situation in Finnish forest industries at the turn of the century. The ideology, rhetoric and management practices of share-

holder value were brought into the opening Finnish business environment, including the larger forest corporations (Saastamoinen 2000; Mikkilä 2005), earlier having been in the hands of the "patient capital" (Lilja et al. 1992; Kuusterä 1999).

The corporate narratives to attract the investors appeared along the same way. "Stora Enso to conquer the world" was an example. The narrative to be read from UPM's slogan "We lead - We learn" was challenging as well but wisely leaves a backdoor open.

Another related but more recent research orientation, deriving from the earlier debates on managerial revolution or managerial capitalism as well as from the observations of senior financial professionals, explores questions about the role and possible effects of fee-earning capital market intermediaries in present-day capitalism. The question is whether this group of actors has taken a new leading role in the economy, in part by constraining the discretionary power of an old group of actors, the salaried corporate managers (Froud et al. 2006).

Two intermediary groups were distinguished. The first includes audit partners in accounting, remuneration consultants, and providers of specialist expertise such as corporate lawyers as well as pension fund managers and stock market analysts. The other group includes investment bankers providing M&A advice and new issues, hedge fund managers and other activist investors, as well as an assortment of traders and dealers working on own account or bank payroll. A part of this group is responsible for the hyper innovation within the capital markets.

All the different groups of intermediaries have a stake in an economy of permanent restructuring, which is a practical project where deals (be it acquisition or demerger, new issues or buybacks, securitisation or re-bundling risks) are the source of fees.

Although more research is needed, authors argue that capital market intermediaries are in many ways the emblem of present-day capitalism. The financial crisis has probably provided new evidence to be investigated.

5.3 Agency chain and a consulting connection?

Today, scores of people are handling money and making decisions on behalf of (that is, as agents of) others. All along the "agency" chain, concern about performance has been translated into a focus on short term returns *(*(Stiglitz 2010, 12-13). This may refer mainly to the intermediaries outlined above, but it is useful to find that there are many actors outside the direct value chain, agents, who may benefit from any changes occurring in the pulp and paper industry.

One important element of agency chain can be found in the consulting business, traditionally playing an important role in pulp and paper industries.

Between 10-15% of the investments made by forest companies go into design and planning performed by specialized firms of engineers and consultants. In addition, the management consultation to the forest industries accounts for as much as 20-30% of the demand for engineering expertise for investments in general. Thus the total engineering design and consultancy market for the forest industries would appear to be worth of USD 2.5-3.5 billion per year. The Finnish Jaakko Pöyry Group is among the world leaders in its field (Kässi 1999).

The corporations of pulp and paper industry in Finland as elsewhere make their investment decisions themselves. Responsibilities for failed decisions cannot be outsourced. Yet some questions may be raised. The world demand for paper and paperboard between 2004 and 2020 was predicted by Pöyry (2006, as given in Diesen 2007) to increase from 359 million tons to 494 million tons. For mature markets (Japan, Europe, North America) the growth rate was 0.5 %/yr and 4.1 %/yr for the rest of the world. Annual absolute growth was predicted to be 8.2 million tons compared with 7.5 million tons between 1980 and 2004.

This was as late as in 2006, almost ten years after L. Hetemäki (2000) at the Finnish Forest Research Institute reported about decreasing newspaper consumption in the US and similar markets.

5.4 From a welfare state to a corporate welfare state?

The Scandinavian welfare state has become a model which many countries in the world have seen worth studying and learning from. In the world of forest industries, the Nordic forest industrial regime has similarly been seen as a representative model of sustainable and responsible forest industries (Lehtinen et al. 2004).

The corporate welfare state is a concept that includes "the extension and strengthening of the corporate safety net, even as social protections for ordinary individuals were, at least in some areas, weakened" (Stiglitz 2010, 199).

Related again to the financial crisis: "The banks (and the bank's investors) also badly misjudged the risk associated with high bank leverage. ... In some cases, the seeming mispricing and misjudging of risk was based on a smart bet: they believed that if troubles arose, the Federal Reserve and the Treasury would bail them out, and they were right" (Stiglitz 2010, 7).

It seems that a part of the forest industry strategy is always to present and require new demands from the state to improve the competitive conditions: "Labour-, energy- and raw-material costs have increased faster than with the competing countries during the 2000s. The industry needs fast and concrete actions in particular in energy issues and timber markets" (Jordan 2010). Securing the availability of energy at competitive prices, one encourages industry to invest at home.

The increased electricity needs are due to more electricity intensive products and bio-refineries also requiring electricity. Wood supply requires enabling private forest owners and joint efforts of all actors to safeguard wood supply. Also domestic wage agreements should take into account the cost levels of the export oriented industry. Investments in research, product development and innovation are needed, as well as to harness education to foresee companies' needs, so that expertise and capabilities for new products and services will be available (Jordan 2010). These all are important elements to support the industry. Yet, remembering the drastic downturn of capacity and employment during the past years, one has to ask: what is the just and balanced social contract between industry and society? The commitment to the common good should be reciprocal.

6. Conclusions and comments

Ojala (2008) summarized the last transition of forest industry development in Finland into two statements (*translation OS*): "From the domain of the [Finnish] bank groups to international giants" and "Development of cooperative, national capitalism to financial and global capitalism".

It is true that the two largest corporations are prominent among the world forest industries and may be called international giants in their own class. The international giants should be able to behave well, because every gesture will be recognized everywhere. They should be sensitive to the variety of cultural landscapes where they are moving forward and leaving their footsteps. This is probably well understood in the civilized corporations.

Operating in the countries where land claims and land use conflicts are often found everywhere and everyday, may make it easy not to forget the home fields.

In fact, there are not so many countries in the world, where one can find abundant land for forestry and forest industries, outside the boreal zone, where the interests of competitive land uses are marginal or moderate, and can be appropriately taken into account under the concept of multiple use, leaving sufficient space for profitable wood, pulp, paper and forest energy industries.

It also must be recognized that all of the Finland (Scandinavia) based corporations are performing very well in comparison with their international competitors in the global sustainability indexes, in particular in the environmental matters. With regard to environmental consideration, the Finnish corporations might do even better in the future when a compromise recently was made on adopting the FSC certification in Finland. The major reason why the international ENGOs had so strongly attacked Finnish forestry has maybe now been removed from the agenda.

What concerns the social aspects in the global corporate sustainability indexes, two points must be considered. Performing reasonably well there

might on one hand mean that the global average has not been very high, but on the other hand the social elements of sustainability in these indexes may not reflect in sufficient way the demands of real life. The third point, however, might be that the social disbenefits and damage caused by mill closures in a country like Finland, even shaking the foundations of local and regional communities, are in the world's views more than counterbalanced by the increased employment and improved work safety in the emerging economies, where the reference level may be closer to those prevailing in the underground industries such as mining.

The final point concerns a need to slightly reformulate the above well-pointed conclusions of Ojala (2008). "Development of cooperative, national capitalism to financial and global capitalism" is as true in Finland as it is in many other countries.

It is also true that the Finnish pulp and paper industry has left "from the domain of the [Finnish] bank groups", and the leading companies can even after the substantial "downsizing" be seen as "international giants" in their field. What needs to be formulated more explicitly is the new domain they have moved to, that is, the domain of "financial and global capitalism".

Of course this is a truism, which nevertheless may explain some of the strength of the recent downturn of pulp and paper industry in Finland. It has also been the argumentation and weekly message of the corporations that they are global and accordingly have to act globally, not nationally or locally, to survive and perform well. Even if this is true, it remains to be considered how difficult it is to behave in foreign cultures if one's own culture seems to be inadequately known.

What remains to be afraid of is whether forest industries are already in the process of becoming only the "sub-contractor" of added value to the opaque, multilayer and opportunistic system of financial governance of the world (Saastamoinen 2008). It would be unfortunate if the giants' shoulders were not able carry in a decent way the Nordic model of responsible forest industry. Although a bit scared, it is still alive, and should be the basis for the global standard of forest industries.

Freed from, or resistant to, the excessive financial pressures from above, global forest industries may find their places where they should be: as the solid beams of the new global architecture of sustainable economy and future.

References

Crawford. P. 1998. Global Pulp and Paper Industry in Transition. Tappi Journal Vol. 82: No.1: 45-47.

Diesen, M. 2007. Economics of the Pulp and Paper Industry. Totally updated edition. Papermaking Science and Technology. Book 1: 1-186. Fapet Oy.

European Pulp and Paper Industry. 2009. A Manifesto for Competitiveness and Employment, June 2009. CEPI.

Finnish Forest Industries 2010. (www.forestindusties.fi).

Finnish Statistical Yearbook of Forestry 2009. Metsätilastollinen vuosikirja. METLA.

Follkman, P., Froud, J. Sukhdev, J. and Williams, K. 2006. Working for themselves?: Capital market intermediaries and present day capitalism. CRESC Working Paper Series. Working Paper No. 25:1-19.

Froud, J., Johal, S., Leaver, A. and Williams, K. 2006. Financialization and Strategy. Narrative and Numbers.London. Routledge. 99 pp.

Hetemäki, L. 2000. Information technology and the future of printing papers. Forest Research. METLA's customer publication 2b:15-17. Finnish Forest Research Institute.

HS – Helsingin Sanomat, International edition 25.20.2007.

Hetemäki, L. and Hänninen, R. 2009. Arvio Suomen puunjalostuksen tuotannosta ja puunkäytöstä vuosina 2015 ja 2020. Metlan työraportteja 122.

Häggblom, R. 1999. The forest cluster is becoming global and more compact. In: Reunala, A. Tikkanen, I. & Åsvik, E. (eds.). The Green Kingdom – Finland's forest Cluster. Otava. Pp. 296-301.

Jordan, K. 2010. Metsäteollisuuden toimintaedellytykset Suomessa. PTT-katsaus 2/2010: 6-11.

Juslin, H. and Hansen, E. 2002. Strategic Marketing in the Global Forest Industries. Authors Academic Press. 607 pp.

Kuisma, M. 2006. Metsäteollisuuden maa. Suomi, metsät ja kansainvälinen järjestelmä 1620-1920. SKS. Pp. 781

Kässi,T. 1999. Local and global planning know-how in the forest sector. In: Reunala, A. Tikkanen, I. & Åsvik, E. (eds.). The Green Kingdom – Finland's forest Cluster. Otava. Pp. 170-173.

Kuusterä, A. 1999. Banks opening the way into international markets. In: Reunala, A. Tikkanen, I. & Åsvik, E. (eds.). The Green Kingdom – Finland's forest Cluster. Otava. Pp. 174-178.

Lazonick, W. and O'Sullivan, M. (2000). Maximizing shareholder value: a new ideology for corporate governance. Economy and Society 29 (1) February 2000: 13–35

Leaver, A. and Johal, S. 2007. Is the Stock Market a Disciplinary Institution? French Giant Firms and the Regime of Accumulation. New Political Economy 12(3) (2007).

Lilja, K., Räsänen, K. and Tainio R. 1992. A Dominant Business Recipe: the Forest Sector in Finland. In: Whitley, R. (ed.) 1992. European Business Systems. Firms and Markets in their National Contexts. SAGE. London. Pp. 137-162

Metla 2010. Metsäsektorin suhdannekatsaus 2010-2011. Metsäntutkimuslaitos. Pp 56.

Moen,E. and Lilja, K. 2000. Constructing global corporations: contrasting national legacies in the Nordic forest industry. Manuscript. 32 pp.

Mutanen, A. 2010. Metsäteollisuude kustannusrakenne. Teoksessa: .Metla 2010. Metsäsektorin suhdannekatsaus 2010-2011.Metsäntutkimuslaitos. Pp. 30-31.

Ojala 2008

Pöyry Forest Industry Consulting, 2006.

Stora Enso 1999. ”Strategic Process Going On” (Http://www.storaenso.com/investors 2.12. 1999)

Saastamoinen, 0. 2001. Paper mills of all countries, unite! The strategies of the Scandinavian pulp and paper industries. In: Solberg, B. & Delbeck, G. 2001. Proceedings of the Biennial Meeting of the Scandinavian Society of Forest Economics, Gausdal, Norway, April 2000. Scandinavian Forest Economics 37:126-135.

Saastamoinen, O. 2008. Kestävyys, kannattavuus ja omistaja-arvo metsäteollisuudessa. [Sustainability, profitability and shareholder value in forest industries] Silva Carelica 56:70-79.

Saastamoinen, O. 2009. Global forest related policies and governance. In: Kellomäki, S. Ed.) 2009. Sustainable management of forest resources. Papermaking science and technology . Second edition. Totally updated version. Helsinki. Paper Engineers’ Association /Paperi ja Puu Oy. Papermaking Science and Technology, Book 2: 490-546.

Stiglitz, J. 2010. Freefall. The freemarkets and the sinking of the global economy. Allen Lane. 400 pp,