

Changing paper markets and prices

Lauri Hetemäki, senior researcher, Ph. D., Finnish Forest Research Institute (Metla)

The paper markets in industrial countries are currently undergoing a historical structural change. The traditionally mutually supportive development between information and communications technology (ICT) and the paper markets seems not to operate as before. Depending on the end use of the paper and the geographical location of the markets, paper consumption may decrease or increase. Technological advances also have repercussions on prices of paper products. What is the meaning of these changes?

Consumption of newsprint declining in OECD countries

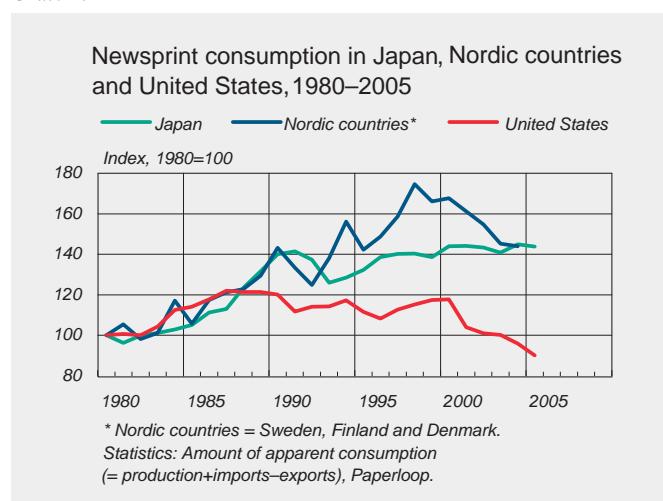
Consumption of newsprint has decreased, for example, in North America and the Nordic countries (Chart 1). It has been falling in the United States since the end of the 1980s but began to decline in the Nordic countries only after 1998. Newsprint consumption in the United States is currently at the same level as at the start of the 1970s and in the Nordic countries at levels seen in the early 1990s. In Japan – the world's second largest newsprint market after the United States – consumption has been stagnating for a long time. While the stagnation in Japan is partly due to economic recession, temporary economic spurts have not induced growth in newsprint consumption.

A number of reasons have been put forward to explain the decline in newsprint consumption, and undoubtedly there are a number of factors involved. Research results and expert assessments however point to ICT developments as

the single most important factor. Developments in North America have been driven especially by cable television and the Internet. According to the Newspaper Association of America, for instance, it is precisely the increased use of the Internet that lies behind the diminished ability of newspapers to reach an audience. The situation appears to be the same in a number of other affluent OECD countries, in which the development of electronic media has led to a shrinking proportion of the population reading printed newspapers. In particular, young people do not read printed newspapers and, contrary to what was previously the case, will not start reading them as they advance in age.

This means that the previous relationships between economic expansion, population growth and newsprint consumption have changed in a number of OECD countries. Ever since newsprint has been manufactured, economic progress and population growth have spurred newsprint consumption. This is no longer the case.

Chart 1.



Research results suggest that the impact of economic growth may diverge depending on the length of the time horizon examined. In models explaining US newsprint consumption on the basis of economic growth, the effects of GDP growth on consumption are positive in the short run but negative in the long run (Hetenäki 2005a). Short-run analysis focuses on cyclical fluctuations, such as changes from downturns to upswings. The long run, on the other hand, is a period in which structural changes may take place in the economy and in newsprint consumption.

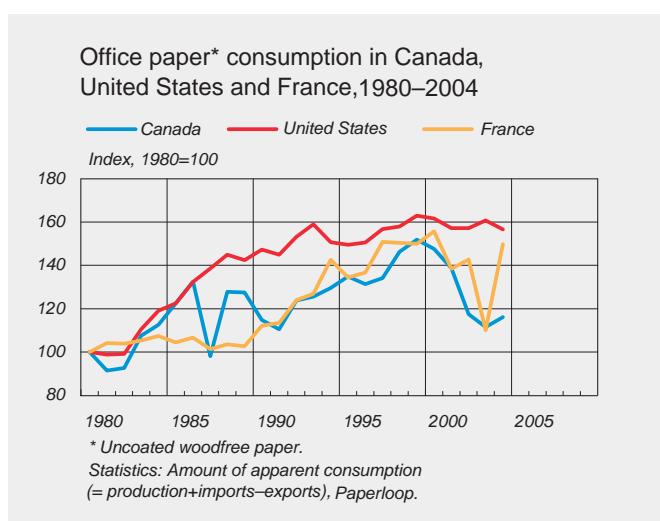
Cyclical changes in the economy do affect newsprint consumption, thereby confirming the conventional wisdom: when the economy expands, advertising in newspapers increases, causing newsprint consumption to rise, and vice versa in a cyclical downturn. Accordingly, the OECD countries are also likely to see periods of higher newsprint consumption and higher prices. On the other hand, the picture

changes if short-term cyclical fluctuations are removed from the data on newsprint consumption and economic performance and the focus turns to long-run trends. In the long term, economic growth will induce changeover to the information society, which provides access to computers, the Internet, broadband connections, etc for an increasingly larger number of people. The wealthier the country, the better the chances for its citizens to acquire and use electronic communications technology. This, in turn, enables easier replacement of printed newspapers by electronic media, such as online editions of newspapers. In addition, new media and digital facilities (eg video games, Internet surfing, various multimedia devices) may lead to abandonment of newspaper reading altogether – whether printed or online. With the constraint of 24 hours a day, the various communications media and entertainment forms engage in a zero-sum game for the consumer's time.

Office paper markets also undergoing change

Besides the newsprint market, the market for office paper (uncoated woodfree paper) appears to have been undergoing a structural change in recent years. Statistics indicate that the rate of growth in consumption of office paper in certain OECD countries has either slowed markedly, come to a halt, or even started to decline (Hetenäki 2005a). While observations on office paper consumption in the United States, Canada and France in recent decades may be somewhat ambiguous for

Chart 2.



certain years, the trends observed can be regarded as broadly reliable (Chart 2). The overall consumption of office paper in the United States over the last ten years has remained at the same level as in 1993, with the per capita consumption falling to the mid-1980s level (not shown in the Chart). In Canada, the consumption of office paper grew until the end of the 1990s, after which a clear downward trend has set in. France has also experienced a structural change after the millennium turn. It is noteworthy that, following a deceleration in economic growth in 2001, consumption has not regained momentum in the United States and Canada, despite a discernible pick-up in economic activity in 2002–2004. In France, the economy grew on average at the same pace in 1995–1999 as in 2000–2004. In other words, the economic situation would not appear to explain the fall in office paper consumption since 1999.

One significant feature of developments in office paper markets within the EU has been the dissimilarities across countries. In the UK and Germany, for instance, office paper consumption continues to rise. What would then explain the change in office paper consumption in Canada, the United States and France?

Office paper comprises a number of paper products, such as copying paper (A4), business forms, offset paper and envelopes. US statistics, for instance, provide evidence of continuing growth in A4 paper consumption, unchanged consumption of offset paper and envelopes, and a definite decrease

in consumption of business forms and other office papers. With the use of the Internet and microcomputers, access to online services (eg invoicing, statements of account, documents and e-mail messages) has become more frequent, thereby displacing the use of forms and envelopes. On the other hand, increasingly cheaper information technology products and lower printing costs have boosted the consumption of A4 paper.

Accordingly, ICT developments have had both positive and negative implications for office paper consumption. The negative effects have strengthened over time. Commercial banks, for example, have switched from paper to electronic statements of account and forms. This trend is motivated by efforts to improve service provision, economic factors and environmental considerations. The Bank of America introduced in 2005 a programme on paper usage, which aims to minimise the use of paper, for example, via increased electronic communication. Behind this change are pressures from environmental organisations and economic factors. Similar guidelines have been issued by many other US and European companies (eg Citigroup and HVB Group). As the banking and insurance sector ranks among the major consumers of business forms, these changes will inevitably affect office paper consumption.

The public sectors in many countries are also trying to reduce paper consumption. Typical examples are objectives set by central and local government administrations and universities to change over to the use of

electronic documents. One of the most recent examples in Finland is the aim of Tampere City Council to start using electronic documents in its operations.

It is interesting that the structural change experienced in the consumption of newsprint and office paper has not yet spilled over into the consumption of magazine paper. In the OECD countries, including the United States, the consumption of magazine paper has continued to increase, albeit at a slower pace than before. This does underline the difficulty of drawing general conclusions when assessing the impact of ICT on consumption of paper products – the impacts differ according to the paper product involved. The outlook for consumption of paper grades suitable for printing photographs, for example, is bright in the OECD countries, precisely because of advances in information technology.

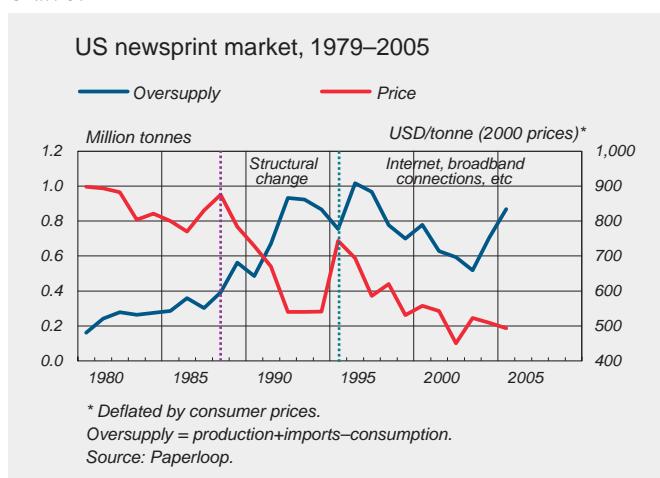
Prices declining

The development of information technology also affects prices of paper products. First, as a result of the

increasing application of ICT, productivity in the paper industry has improved and will continue to do so in the future. Traditionally, enhanced productivity has also been reflected in lower end-product prices over time. Meanwhile, competition between printed and electronic media is tightening. As a consequence, publishers of printed matter seek to cut costs and thereby reduce the prices of paper products. ICT and globalisation will also lead to price convergence in global paper markets across the continents. Estimates suggest that the focus of pulp and paper industry production will increasingly shift to non-OECD countries where output costs are lower. This adds to the pressure to reduce end-product prices in the future. There are no such factors in view that would give cause for assuming that the already protracted downward trend in real prices would end or be reversed. Even so, there will still be cyclical upswings in prices.

An examination of real prices and ‘oversupply’ of newsprint in the United States in 1979–2005 indicates that prices started to fall markedly after 1988, when consumption dropped but capacity was not adjusted accordingly (Chart 3). Newsprint machines were not closed down or switched over to production of other paper grades until after the mid-1990s, which subsequently resulted in the adjusting of supply more in line with consumption. It is interesting to observe that despite this adjustment prices have continued to decline. Admittedly, recent years have seen some cyclical upturns

Chart 3.



following the price collapse. One might speculate that the rapid dissemination of the Internet since the mid-1990s and the introduction of broadband connections somewhat later may have contributed to these price developments. In other words, increased reading of online editions of newspapers and 'Internet surfing' have on the whole increased competition and thereby moved prices further down, irrespective of a reduction in the oversupply of newsprint.

In addition to newsprint prices, the prices of printing and writing paper have been showing a clear downward tendency in North America and Western Europe since the beginning of the 1990s. This development is most likely to continue for the reasons already discussed above.

Implications for Finland

World consumption of paper products in general will continue to grow, ICT developments notwithstanding. Rapid consumption growth will be seen, for example, in China, the Far East and Russia. Even if ICT effects are broadly similar for the consumption of paper products the world over, other factors in paper consumption will dominate in these regions. In developing countries,

the consumption of newsprint and office paper per capita accounts for only a fraction of that in the OECD countries. With increasing economic prosperity, paper consumption is likely to grow in these regions, at least over the next few decades.

ICT developments reinforce the ongoing structural change in global paper markets. Consumption and output of paper products will grow slowly or not at all in the OECD countries, whereas it is set to grow fast in a number of Asian countries, Russia and Eastern Europe. These developments will have significant implications for Finland. Existing paper products have reached output growth limits in Finland, and the prices of these products are edging downward in real terms. This will pose challenges for employment, use of wood and the current account, for instance.

Adaptation to these changes is possible through innovations. While this article did not address the opportunities afforded by information technology to the forest sector, innovative use of information technology is one of the keys to success in responding to the forthcoming structural change in the global paper markets (see Hetemäki – Nilsson 2005).

Sources

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