

# Competition in Scholarly Publishing? What Publisher Profits Reveal

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As both customers and critics of commercial scholarly publishers, librarians might find useful a summary of the recent finances of the publicly traded companies that have significant scholarly publishing operations. A financial analysis can help us determine if our trust in maintaining long-term relationships with these companies is warranted and at the same time suggest whether our concerns that an anti-competitive market is operating are supported by the data.

## Recent Profits of Publicly Traded Scholarly Publishers

The publicly traded companies with significant scholarly publishing operations focused on here are Wolters Kluwer, Reed Elsevier, John Wiley & Sons, and Plenum Publishing. In March 1998, Wolters Kluwer and Reed Elsevier canceled plans to merge. In early June 1998, Wolters Kluwer announced plans to acquire Plenum.

Finding meaning in the measurements of publishing houses requires an understanding of what existing data represent (and/or exclude) and a context for interpreting the data. This summary presents three tables to examine the four companies. The first table looks at the overall size of the companies. The second presents financial ratios to indicate profitability of overall operations. And the third table presents a hypothetical summary of savings for the customers of these companies' scholarly publishing segments had the companies operated their scholarly publishing segments at the median measure of profitability for the periodical publishing industry. Taken together, these figures give a reasonable picture of the profits achieved by these companies from their sale of scholarly materials.

To illustrate the relative size of the companies, [Table 1](#) reports sales, operating income, net income, net income available for common shareholders, and common equity for the four publishers under review as well as for two other companies --Thomson and Microsoft. Thomson is not a major publisher of scholarly journals, but it is a major vendor of other resources to the research library community (for example, Thomson owns Gale Research, Information Access, the Institute for Scientific Information, and West), so it is included for informational and comparison purposes. Microsoft is included as well to provide some basis for comparison as a well-known, highly profitable company operating in a somewhat monopolistic market. (In the March 30, 1998 issue, Business Week ranked Microsoft as the most profitable company in the S&P 500 in 1997 based on a variety of measures.)

In addition to the raw financial figures in [Table 1](#), the financial ratios in [Table 2](#) are presented as they are more informative about the market in which commercial scholarly publishers operate. For comparison, periodical publishing industry ratios are also included in [Table 2](#) for periodical publishing in general (not limited to scholarly publishing). Ratios for the banking and consumer products segments of the S&P 500 are included because they were the most profitable segments in 1997, as measured by net margin and return on equity, respectively.

There is no single ideal measure of profitability, and all of the financial ratios presented in this summary must be considered relative to other companies and industries. Three ratios are particularly useful to customers of these companies:

- **Operating margin** measures how much of each sales dollar customers pay to *all* the beneficiaries of an enterprise over and above the costs incurred in providing the goods or service. Those beneficiaries include stockholders, lenders, and members of society benefiting from taxes on the enterprise. A high operating margin may be needed to cover taxes and provide a return that will attract the necessary capital through lending or stockholding, given the particular risks of the enterprise and alternative investments. Operating margin excludes interest costs/profits that are the result of decisions about how to finance an operation and how to use the income it generates rather than the result of the direct costs and benefits of carrying on an enterprise.
- **Net margin** takes interest and taxes out of the profit consideration so that only common and preferred dividend stockholders are considered as beneficiaries. A high net margin may be necessary if the enterprise is high-risk and requires a considerable capital investment. However, a net margin of profits on sales that is higher than the market norm is a substantial indicator of "high" profits and raises questions about whether a competitive market is operating and, if so, why that particular market supports a higher margin than other markets.

Both operating and net margins are reported excluding extraordinary financial events that are not expected to recur, such as the one-time costs and benefits of acquisitions, dispositions, legal actions, etc.

- **Return on equity** is the ratio of net income (after payment of preferred dividends) to the net worth or common equity in the enterprise. Return on equity measures income generated for each dollar of capital invested by the ordinary owners who have no special first claim on profits in the form of preferred dividends.

As measured by net profit margin, Plenum Publishing was more profitable in 1997 than 491 companies in the S&P 500, according to Business Week. Reed Elsevier's net margin was higher than 473 of the companies in the S&P 500 for 1997. Both Plenum and Reed Elsevier had extraordinary net profit margins compared to the periodical publishing industry as a whole, and Wolters Kluwer was near the upper quartile. However, as noted, high margins on sales may be necessary to earn a sufficient return on the equity that must be attracted. Wolters Kluwer provided a higher return on equity in 1997 than 482 of the S&P 500 companies, Reed Elsevier higher than 448, Plenum higher than 361, and Wiley higher than 302. Even though Wiley's net margin was relatively modest (4.7%), it excelled in providing a strong return on equity (17.2%). This ability to turn a net margin into a high return on equity is characteristic of the publishing industry in which either a small amount of equity can be put to work to generate considerable sales or the industry leverages equity by borrowing to produce high returns on small equity stakes. In simple terms, this means that publishers either do not need to raise a large amount of capital to produce publications or that publishers borrow what money they need rather than selling equity stakes. A detailed analysis of the origins of these

returns on equity is beyond the scope of this article, but a high return on equity is at least a potential indicator that equity holders are benefiting from investing in activities not subject to competitive forces. In combination with other evidence, the return on equity figures help bear out this assessment.

The periodical publishing industry as a whole, at the lower quartile, median, and upper quartile levels, converts margins into return on equity at multiples of three or four times. Wolters Kluwer and Wiley attained these industry levels of performance as measured by return on equity as multiples of their margins. However, because Wiley started from a lower margin, only Wolters Kluwer approached the extremely high return on equity of the upper quartile of the industry. Compared to most other industries, Reed Elsevier fairly efficiently used capital to earn a high return on equity from a very high margin, but it was not nearly as effective with its margin as other top-performing publishers. Plenum did a poor job of converting a very high margin into return on equity; this gives some indication of likely inefficiencies on the part of Plenum relative to the other two companies and relative to periodical publishing in general. However, we cannot definitively state the origins of these return on equity figures without a very detailed analysis of the debt and equity structures of these companies.

If the net margins of Wolters Kluwer, Reed Elsevier, Wiley, and Plenum had been 5.0% (the median in the overall periodical publishing industry as measured by Dun & Bradstreet's Industry Norms & Key Business Ratios 1997-98) the customers of the three companies would have saved approximately \$884,653,000 in 1997. Alternatively, if the three companies had earned a return on equity of 18.8%, the customers would have saved approximately \$490,145,000. Of course, those customers were not all purchasing only scholarly publications from these companies. That raises the issues of how much revenue these companies derive from scholarly publishing (as opposed to their other product lines) and how these companies regard their own scholarly publishing segments.

### **Company Views on the Scholarly Publishing Market**

The annual reports contain some information about the companies' views of the scholarly publishing market and their intentions to focus on this profitable business.

Wiley reports that 47% of revenue for 1997 was derived from science, technology, and medical publishing, consisting of journals, encyclopedias, newsletters, and books: "A fundamental strategy is to develop journals, newsletters, subscription books, multivolume reference works, and other continuity products. Such products serve customers well by keeping them up to date in fast-moving fields of science and technology, and they benefit Wiley by generating predictable income and substantial cash flow." Educational publishing, mainly of undergraduate texts, accounted for 25% of 1997 revenue for Wiley, and professional publications mainly focused on business professionals generated 28% of revenue in 1997.

Plenum reported that in 1997 subscription journals accounted for 63% of sales, books for 26%, and database products for 9%. No particular emphasis is reported on growing one segment relative to another.

Reed Elsevier reports, "The Scientific segment of Reed Elsevier comprises worldwide scientific and medical publishing businesses... The Scientific segment represented approximately 17% of Reed Elsevier's total net sales and 26% of Reed Elsevier's total operating income before exceptional items for the year ended December 31, 1997. Within the Scientific segment, Elsevier Science contributed approximately 83% of the total net sales in the year ended 31 December, 1997." The fact that Reed Elsevier made only 17% of its total sales in the Scientific segment yet made 26% of its operating income from that segment may in large part explain Reed Elsevier's enthusiastic disposal of most of its operations in the more competitive and less profitable consumer publishing market in favor of focusing on lucrative scholarly publishing.<sup>1</sup> The three profitable sectors, Scientific, Professional, and Business, grew net sales and operating income (at constant exchange rates and before extraordinary items and acquisitions and dispositions) as follows in 1997: Scientific net sales +8% and operating income +12% Professional net sales +7% and operating income +8% Business net sales +5% and operating income +11%. Reed Elsevier is clearly good at converting sales in both the Scientific and Business segments into income.

Wolters Kluwer reports that 14% of its sales and 13% of its operating income were derived from the Scientific and Medical publishing segment. The largest and most profitable Wolters Kluwer operations are in Tax and Legal publishing, including not only the CCH divisions but also a very substantial amount of scholarly legal publishing. The profitability of the large, somewhat monopolistic Tax/Legal segment partly accounts for the difference between Scientific/Medical sales at 14% and operating income at 13% of overall operations. The Scientific/Medical segment is very profitable for Wolters Kluwer, and they have been concentrating on growing it through acquisitions, including the planned acquisition of Plenum. The other quite profitable sector is Business publishing, which includes some scholarly publishing. The Educational and Trade publishing sectors are much less profitable in terms of operating margins. In the following calculations of scholarly publishing profit ratios ([Table 3](#)), only the Scientific/Medical sector finances are included for Wolters Kluwer, although they clearly derive income from scholarly publishing in other sectors that is not specifically quantified in their reporting. Wolters Kluwer's 1997 annual report includes a section on "Developments in the Markets" that states, " We are furthermore facing sustained competition from 'Non-publishers' in the field of information provision." There is no elaboration on this interesting point that seems to have significance especially for the Legal/Tax and Scientific/Medical segments.

Since indications are that scholarly publishing is among the most profitable segments for these companies, a very conservative assumption is that their overall net incomes derive from scholarly publishing in proportion to their sales or operating margins in that segment. Because the capital investment for scholarly publishing is relatively low, it is also conservative to estimate that equity is invested in the scholarly publishing segments in proportion to the sales that derive from those segments. By recalculating scholarly publishing sales, assuming the periodical publishing industry median of 5.0% net margin or an industry median of 18.8% return on equity, it is possible to calculate the savings or costs to scholarly publishing customers of these companies' profits beyond or below industry medians. These hypothetical savings and costs to scholarly publishing customers are shown in [Table 3](#). (Complete tables

from which these calculations were derived are available:

<http://www.arl.org/newsltr/200/wylytable.html#4>.) Where segment data is not available, the conservative assumptions outlined above are used so that these calculations are based on the scholarly publishing sales figures for Wiley at 47% of total sales, Plenum at 63%, Wolters Kluwer at 14%, and Reed Elsevier at 17% and the scholarly publishing operating and net incomes for Wiley at 47% of the totals, Plenum at 63%, Wolters Kluwer at 13%, and Reed Elsevier at 26%. Reed Elsevier dominates these figures in sheer costs to customers because of its size; therefore, to make clear the proportional savings within each company's customer base, the hypothetical percentage savings on scholarly sales is also shown for each company. By these proportional measures, Reed Elsevier still clearly dominates these measures of profits beyond the periodical publishing industry medians, and the Reed Elsevier profits are on such large sales that they raise the overall effect when the totals of all four companies are combined.

It is noteworthy that Wiley's profits in scholarly publishing are essentially similar to the periodical publishing industry overall. Reed Elsevier in particular is probably profiting from the structural differences between the market for scholarly publishing versus the market for periodical publications more generally. Plenum's relatively inefficient use of capital is illustrated again here by the dramatic contrast between the savings as calculated on industry-standard net margin versus industry-standard return on equity. Wolters Kluwer is considerably more profitable in its scholarly publishing businesses than the periodical publishing industry median ratios. However, Plenum's high margins and inefficient use of high margins and Reed Elsevier's high margins and high return on equity stand out as worthy of our attention as customers.

## Discussion

The financial performance of vendors is of interest to (potential) customers for several reasons. On the positive side, a financially sound company can be more safely relied upon if the intention is to build a long-term relationship. The profitability of a vendor may also indicate the superiority of its products and services or a better understanding of the market served. If a competitive market is operating, the very definition of a free market means that successful companies succeed for these reasons. Therefore, the financial performance of a vendor can help to guide purchasing decisions by providing information about the collective judgments of the marketplace of customers.

However, if a competitive market is not operating, the finances of vendors can show the absence of competition. More importantly, the finances of the vendors will provide some measure of the economic consequences for the customers of the lack of a competitive market, as in [Table 3](#). When these consequences are clear, customers may come to understand that they must seek to change the situation, unless the costs of being a buyer in a non-competitive market are relatively small in terms of the overall enterprises of the customer.

The costs of acquiring scholarly information are relatively substantial in research libraries, and even in terms of entire universities' budgets. If we find ourselves being customers in a non-competitive scholarly communication market that is too expensive for our participation in the breadth and depth needed for a healthy scholarly system, what is to be done? When regulation

is as unlikely as it is in today's current political environment, and when the product or service is as vital as scholarly information is to research communities, then the customers can only pursue innovations that will end the reliance on buying in a non-competitive market.

SPARC (the Scholarly Publishing & Academic Resources Coalition <http://www.arl.org/sparc/index.html>) seeks to create a competitive environment for scholarly communication by just such innovation both within and beyond the current scholarly publishing system.

In the short term, this financial information might be useful in negotiations or debates with commercial publishers. However, the fundamental problem of a lack of competition cannot be addressed through negotiations. Ultimately, research institutions must help to create a system of scholarly communication that is either strongly competitive and commercially based or a system that is not predicated upon the generation of profits from the communication process itself. This summary of publisher finances illustrates in an inexact way the premium paid for relying on the current inherently non-competitive economic model of commercial scholarly publishing. The lack of competition is fairly obvious in the finances of the companies, but the lack of competition can be confirmed by an analysis of how all the participants—authors, readers, and publishers—operate within the commercial scholarly publishing process.

Free markets encourage innovation in the deployment of resources precisely by tolerating extraordinary profits for new enterprises when risks are high and before a competitive market is established. Thus, companies regularly make claims to investors about playing in markets where competition is sparse or non-existent for the moment due to the innovations of the company. However, sustained non-competitive markets in a mature industry are generally an indication of a structural problem in the market that prevents the entry of competitors over time.

In the case of scholarly publishing, the major impediment to competition is that all of the direct incentives for authors lead them to publish in well known channels to reach the largest number of readers without regard to the cost of those channels to the readers. However, the reader is not free to choose new channels because those channels are typically not filled with the same content early in the development of a publication. This system of incentives makes it very difficult to develop competitive communications channels. The customer, i.e., the reader in this economic model, is disempowered *within* the system because the product is "must-have" and "single source."

Reed Elsevier comes close to stating this in Elsevier's 1997 filing with the U.S. Securities and Exchange Commission (20-F), when it notes for investors that the company is increasingly "concentrating on high value-added areas of 'must-have' information and significantly reducing its exposure to the consumer markets." In the consumer publishing market, the publisher produces the content and other publishers can compete by producing similar content themselves. In the scholarly market, the content is produced by authors external to the publisher, and authors are reluctant to move to another publishing channel for any reason other than broader awareness or prestige, which are inherently difficult to produce early in the development of a channel. This is a very positive market situation for a publisher because it

avoids competition so long as the economic model is not disrupted by innovation. New publishing channels that include technological or structurally innovative features, reach broad audiences, and offer prestige early in the life-cycle might lure authors away from established channels. But perhaps even more importantly, we must keep in mind that the innovation must ultimately disrupt the non-competitive economic model at work in commercial publishing. Improving scholarly publishing functionality with technological innovation will not in and of itself introduce competition. The innovation to change the economic model must focus on developing a structure to align authors' and readers' shared interest in broad dissemination. This is precisely the challenge to the customer community for scholarly communication. We must innovate to produce competitive communication systems over time or continue suffering under a system of shrinking access due to the lack of competition in the present system.

Universities have excellent reasons for pursuing such innovations. The most important reason is not that the current system is too expensive and cannot handle a steadily increasing volume of scholarly communication. Both of these are serious problems, and even minimizing all non-beneficial "publishing for tenure" is only a short-term mitigating approach in the face of increasing collective knowledge. However, overcoming these problems of cost and volume has a much more important benefit for universities than any potential direct cost savings on library acquisitions. The most important benefit of a changed economic model for scholarly communication falls to universities as producers rather than as consumers: scholarly publishing makes publicly known the value of research of all kinds. Only by making that research known can it be valued and financially supported by the various supporters of scholarly enterprise, ranging from corporations to foundations to legislators to other scholars. The worst disservice to the research community by the current system of commercial scholarly publishing is that it dooms scholarly research to reach a shrinking audience as commercial publishers profit from the artificial scarcity enforced by high prices. The greatest rewards for universities in creating a new system of scholarly communication are in the potential for increased support based on increased awareness of the intellectual products of the universities. If any point bears special emphasis in our thinking about the value of innovations in electronic scholarly communication, the value of increasing readership should.

Ease of access to quality information is the fundamental goal of both authors and readers -- "producers and consumers," to put it simplistically. When a researcher takes on the maze of literature databases, the frustration of shrinking local library collections, the long-delayed document delivery services, and the shocking copyright fees, it rapidly becomes clear that there has to be a better way, given that the author and the reader share the desire to communicate. Readers and authors are already finding ways around the frustration imposed by the current scholarly publishing system. SPARC and other initiatives give us the opportunity to facilitate and institutionalize that process.

Finally, it should be noted that this article is not intended as an indictment of any particular commercial publisher or all commercial publishers as a group. Indeed, we are finding many for-profit publishers are adopting business philosophies and practices that may ultimately contribute to a more competitive and viable marketplace for scholarly communication.

**Endnote**

<sup>1</sup>According to Reed Elsevier's annual report, the operating margin of the Scientific segment ran at 40.28% (1997), 41.77% (1996), and 39.66% (1995) as a percentage of sales. As a point of comparison, Microsoft's operating income as a percentage of sales was 45.17% for 1997, 35.50% in 1996, and 34.33% in 1995.

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