

February 5, 2003

(Commodity) Fear and Loathing in the Software Industry

In responding to an article by Charles Mann in MIT's Technology Review, I wrote extensively to explain the poor quality of software and said that it is largely a business economics phenomenon. Microsoft's most recent 10Q has some very interesting comments in its "Issues and Uncertainties" section that seem to support my views.

Software as a Commodity. I wrote that software is a commodity with a marginal cost of close to \$0. I also said that it cannot be effectively protected as intellectual property (not because of piracy, but because legitimate competitors can easily engineer their products to avoid intellectual property rights of competitors without sacrificing competitive features ("functionality")). My views are contrary to the prevailing opinion that software manufacturers can sustain pricing above commodity levels because switching costs are high and consumers value the technical expertise of specific suppliers. But, Microsoft in its 10Q seems to be coming around to my point of view, if involuntarily.

Challenges to the Company's Business Model. Since its inception, the Company's business model has been based upon customers agreeing to pay a fee to license software developed and distributed by Microsoft. Under this commercial software development ("CSD") model, software developers bear the costs of converting original ideas into software products through investments in research and development, offsetting these costs with the revenues received from the distribution of their products. The Company believes that the CSD model has had substantial benefits for users of software, allowing them to rely on the expertise of the Company and other software developers that have powerful incentives to develop innovative software that is useful, reliable and compatible with other software and hardware. **In recent years, there has been a growing challenge to the CSD model, often referred to as the Open Source movement. Under the Open Source model, software is produced by global "communities" of programmers, and the resulting software and the intellectual property contained therein is licensed to end users at little or no cost.** Nonetheless, the popularization of the Open Source movement continues to pose a significant challenge to the Company's business model, including recent efforts by proponents of the Open Source model to convince governments worldwide to mandate the use of Open Source software in their purchase and deployment of software products. **To the extent the Open Source model gains increasing market acceptance, sales of the Company's products may decline, the Company may have to reduce the prices it charges for its products, and**

revenues and operating margins may consequently decline.
(emphasis added)

Product Differentiation Risk. I also wrote that software manufacturers are faced with a marketing problem common to commodity sellers: how to increase year-over-year sales. I wrote that there are parallels between the marketing practices of software manufacturers today and those of auto manufacturers 40 to 50 years ago. Increasingly, software manufacturers have to come up with the “high tech” equivalents of chrome, tail fins and annual model changes. The highlighted sentence seems to support my view.

Declines in Demand for Software. If overall market demand for PCs, servers and other computing devices declines significantly, or consumer or corporate spending for such products declines, Microsoft’s revenue growth will be adversely affected. **Additionally, the Company’s revenues would be unfavorably impacted if customers reduce their purchases of new software products or upgrades to existing products because new product offerings are not perceived as adding significant new functionality or other value to prospective purchasers.**

Intellectual Property Rights. I did not write about the validity of Microsoft’s intellectual property rights last summer, but I find the following paragraph – again taken from the Issues and Uncertainties section of the 10Q – particularly interesting (if I was a Microsoft shareholder I would find this paragraph terrifying).

From time to time Microsoft receives notices from others claiming Microsoft infringes their intellectual property rights. [OK, big deal. Everybody gets these claims.] **The number of these claims is expected to grow.** [Say what?!? Why? And why are they so sure? They don’t say the number of claims “could” or “might” grow. This is a landmine for the careful reader.] **Responding to these claims may require Microsoft to enter into royalty and licensing agreements on unfavorable terms** [Oh, really? The claims have that much merit?], **require Microsoft to stop selling or to redesign affected products, or to pay damages or to satisfy indemnification commitments with the Company’s customers.**

If you peruse a Microsoft license agreement, you will find that Microsoft disclaims warranty of title to the software that is the subject of the license. In other words, they provide no assurance that they own what they are selling. In fact, they are warning you that they very well may not own their product. [Ask yourself whether you would buy a Rolex or a Mercedes from a seller who said, “Oh, by the way, I can’t promise you that I own this.”]

When I look at the paragraph quoted above in this light, I get very concerned for the financial welfare of Microsoft shareholders. The presence of such a paragraph in a filing from a company the size of Microsoft raises red flags at the outset. Microsoft is a huge company with over \$40 billion in cash on the balance sheet. Normally, companies do not discuss matters that do not have at least some potential to have a material and adverse effect on the financial condition, results of operations or prospects of the business. \$40 billion in cash might not be enough to make these claims go away?

What kind of claims could present such a risk? Oh, maybe claims that IP acquired by Microsoft with one of the many "two grad students in a garage" companies it picked up in the 1980s – and now an integral part of tens of millions of operating systems out there – might, uh, really belong to a major university or the federal government? I suspect that IP due diligence might not have been a priority during Microsoft's early years.

The other thing that is astonishing about both this paragraph specifically and the whole "Issues and Uncertainties" section in general is a general lack of lawyer language designed to signal to investors that the disclosure is purely *pro forma* and included to satisfy overly nervous auditors and SEC regulators.

Below, I have re-written the IP claims paragraph into the kind of mealy-mouthed, positive-spin disclosure that would be more typical for a company the size of Microsoft. That they did not write it this way is, to me, very significant and says something is up. Something big.

Like most other companies in the rapidly evolving software industry, from time to time Microsoft receives notices from others claiming Microsoft infringes their intellectual property rights. Microsoft can provide no assurance that the number of such claims will not grow. Although no assurance can be given, Microsoft believes that it holds intellectual property rights necessary for the conduct of its business free from infringement of the rights of others. Microsoft's policy is to vigorously defend infringement claims and (again, while no assurance can be given) the company believes that virtually all of these claims lack substantial merit. Although the resolution of such claims is not expected to be material, it is possible that resolution of these claims could require Microsoft to enter into royalty and licensing agreements on less than favorable terms, require Microsoft to stop selling or to redesign affected products, or to pay damages or to satisfy indemnification commitments with the Company's customers.

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