THE OVERLOOKED CORPORATE FINANCE PROBLEMS
OF A MICROSOFT BREAKUP

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The Overlooked Problems of a Microsoft Breakup

INTRODUCTION

The final judgment issued by Judge Thomas Penfield Jackson in United States v. Microsoft Corp. calls for the division of Microsoft into two independent businesses—an operating systems company and an applications company. We show in this Article that, although the breakup plan has spawned extensive attention and analysis, it involves substantial problems that thus far have been completely overlooked by the government, the court, and the commentators. A breakup of Microsoft would involve substantial “corporate finance” difficulties and costs that would have to be addressed. In this Article, we propose to identify and analyze these difficulties and costs and to explore and assess how they could be best addressed. The problems that we identify must be addressed if a breakup is to be pursued and should be taken into account in making the basic decision of whether to break up Microsoft at all.

Analysis of the breakup has thus far focused on two primary sets of questions. First, many commentators have asked whether the breakup is warranted from an antitrust perspective. Does Microsoft actually possess and exercise monopoly power? If so, would division lead to enhanced competition or result in two mini-Microsoft monopolists? Could conduct remedies alone inhibit future anticompetitive practices, or is a structural division required? Implicit in reaching these latter questions, of course, is the assumption that implementation of a breakup is feasible.

The second set of questions addresses implementation and the economic costs of splitting up Microsoft’s assets. Analysts concerned with these issues have considered the consequences for Microsoft’s shareholders of dividing the company’s business operations, patents, and employees between two independent corporations, as well as the cost of a breakup to consumers, suppliers, and other industry participants. Although these

1. 97 F. Supp. 2d 59 (D.D.C. 2000). The Supreme Court decided not to take the case on direct appeal, see Microsoft Corp. v. United States, 121 S. Ct. 25 (2000), thus enabling a review first by the court of appeals.


3. See, e.g., Don Clark, Dividing Microsoft Isn’t Simple Math, WALL ST. J., June 8,
undoubtedly are very important aspects of the breakup picture, they are not the questions that will concern us here.

Our concern with the implementation of the breakup lies not in the division of assets but in the division of the securities of the resultant independent corporations. Let us assume that Microsoft's assets and people can be divided without too much difficulty. There remains the matter of dividing the securities among Microsoft's existing shareholders. The government and its corporate finance experts have claimed that the financial separation of the companies can be achieved through a conventional corporate fission technique such as a spin-off or split-off, a common corporate transaction that is "similar to a number of transactions that have been successfully accomplished in recent business history." As we will show, however, the ordered breakup is fundamentally different from these standard transactions and raises uncommon problems of valuation, taxation, control, and fairness.

In order to achieve an effective division of the businesses, the final judgment prohibits Microsoft's large shareholders from retaining an equity interest in both of the resultant companies. In the next part of the Article, we explain that this restriction, which precludes simple pro rata distribution of the securities to Microsoft's shareholders, distinguishes the ordered breakup from conventional corporate reorganizations in a way that raises substantial implementation problems.

In the following part, we consider three alternative means of distributing the securities. First, the shares of a spun-off company could be distributed pro rata to all existing Microsoft shareholders followed by a mandated sale by the large shareholders of their interests in one of the two firms. As we will see, however, this approach imposes high costs on the
large shareholders who would be required to sell. Immediate sale would lead to immediate taxation and thus would eliminate the opportunity that these shareholders otherwise would have to defer billions of dollars in taxes. Furthermore, the mandated sale of large blocks of stock in a hurry raises the specter of fire-sale pricing and the potential loss of control premia.

Second, the division of securities could be made in such a way that the large shareholders wind up with an increased stake in one of the firms and no interest in the other. Because no one would be forced to sell stock, such non-pro rata distribution would solve the tax problem and the fire-sale discount problem, but this approach would introduce other difficulties. In order to achieve pro rata distribution of total shareholder value without distributing each of the securities pro rata, the relative value of the two offshoots would have to be determined. We will consider several ways of valuing the offshoots and their securities, including expert appraisal and the use of market mechanisms, but valuation will be difficult and to some extent inaccurate regardless of the method that is employed. Furthermore, some valuation approaches may enable the large shareholders to use their informational advantages to extract additional value. Thus, non-pro rata distribution introduces a very real risk of transferring value among Microsoft’s shareholders.

A third method that we consider would require amending the breakup order, but would be consistent with its goal. Under this method, the securities would be distributed pro rata as in a conventional spin-off, and the large shareholders would be allowed to hold shares in both companies. To prevent them from wielding influence in both companies, however, they would be precluded from exercising their voting power in the offshoot of their choice. To this end, trustees could be appointed to vote these neutralized shares in proportion to the voting of other shares in any corporate ballot. If one of the large shareholders sold these shares, however, the buyer would acquire normal voting rights. This method would still impose costs on the large shareholders, but it might turn out to be the method with least cost and least risk for Microsoft’s shareholders.

Our goal in this Article, however, is not to determine the least costly method of division but rather to highlight significant breakup issues that have been overlooked. Any plan of separation that prohibits Bill Gates and other large shareholders from owning shares in both offshoots would involve considerable costs and difficulties. If a breakup is to be pursued, the government and the courts should seek to address these problems. Furthermore, these problems should be factored into the larger analysis of
whether a breakup of the company is warranted at all. Accordingly, in the final part of the Article, we conclude that the corporate finance issues we have raised should be taken into account in any future consideration of the Microsoft breakup order.

THE FINANCIAL COMPLEXITY OF THE BREAKUP

The Order

The district court order requires Microsoft to divide its businesses into two independent corporations: an operating systems company (Ops Co.) and an applications company (Apps Co.). The company has been directed to develop a plan to accomplish the separation within twelve months of the expiration of the stay entered by Judge Jackson pending appeal of the judgment. Under the plan, the transfer of ownership must be effected in such a manner that "Covered Shareholders" do not own stock in both Ops Co. and Apps Co. Covered Shareholders are defined as Microsoft shareholders who are present or former employees, officers, or directors and who owned, directly or beneficially, more than five percent of Microsoft voting stock as of the date of entry of the final judgment. The Covered Shareholders include, of course, Bill Gates, who, according to Microsoft's most recent proxy statement, owns fourteen percent of Microsoft's shares. The government's submissions to the trial court suggested that there are two

5. See Microsoft Corp., 97 F. Supp. 2d at 64.
6. See id.
7. In the language of the final judgment, the plan must provide for "[t]he transfer of ownership of the Separated Business by means of a distribution of stock of the Separated Business to non-Covered Shareholders of Microsoft, or by other disposition that does not result in a Covered Shareholder owning stock in both the Separated Business and the Remaining Business." Id. The Separated Business may be either Apps Co. or Ops Co. and the Remaining Business will be the other.
8. A Covered Shareholder, moreover, who owns stock in one of the separated companies may not serve as an officer, director, or employee of the other business. In essence, the large shareholders are required to limit their investment and management roles to one of the two offshoots. See id.
other Covered Shareholders presumably Steve Ballmer and Paul Allen.  

The prohibition on cross-shareholding by the Covered Shareholders was sought and adopted in order to prevent these individuals from wielding influence in both companies after the breakup—to ensure, in other words, an effective separation of the offshoots. This restriction is the source of the difficulties that are the focus of this Article’s analysis.

The Government’s Position that Dividing the Securities is Straightforward

Assume that the assets have been partitioned and the employees, physical and intellectual property, and other assets of one of the businesses have been transferred to New Co., which is 100% owned by Microsoft. Aside from the New Co. stock, Microsoft now holds only the assets that shall remain with the other business. The government has suggested that from this point forward separation would be a routine and straightforward matter. 

Testifying for the government, two investment bankers put forward one possible separation scenario. They suggested that in accordance with


11. Microsoft’s September 1999 Proxy Statement indicated the following beneficial ownership: Gates, 15.3%; Allen: 5.1%; and Ballmer: 4.7%. See MICROSOFT CORP., 1999 PROXY STATEMENT (SEPT. 28, 1999), available at <http://www.sec.gov/Archives/edgar/data/789019/0001032210-99-001374.txt>. Microsoft’s more recent proxy statement of September 2000 indicated the following beneficial ownership: Gates, 13.7%; Ballmer, 4.5%. See MICROSOFT CORP., supra note 9. Allen has sold a large quantity of shares over the past year and probably now holds well under 5% of the shares. See Don Clark & Rebecca Buckman, Microsoft’s Allen to Leave Board, Become Adviser, WALL ST. J., Sept. 29, 2000, at B2. According to the final judgment, however, the date of final judgment would be used to determine who is a Covered Shareholder. See United States v. Microsoft Corp., 97 F. Supp. 2d 59, 71 (D.D.C. 2000). In any event, in our analysis we will abstract from these issues and will focus on the Covered Shareholder concept generally. Accordingly, we will assume that Bill Gates and possibly one or two additional shareholders would be affected by the restrictions placed on Covered Shareholders.


13. See Declaration of Robert F. Greenhill and Jeffrey P. Williams ¶ 42-48,
standard industry practice Microsoft could sell up to twenty percent of the shares of New Co. through an initial public offering (IPO) and follow the IPO with a tax free split-off or spin-off of the remaining New Co. equity to the Microsoft shareholders. The bankers testified that separations of this type are common, and they envisioned no difficulty in modifying the split-off or spin-off mechanism to ensure that Covered Shareholders wind up with shares of only one of the two companies. In short, the government and the bankers appear to view this as a standard spin-off transaction, underestimating the difficulties involved.

Why The Division of Securities is Not Straightforward

Although the designer must be careful not to jeopardize the tax-free exchange aspects of the conventional spin-off, the financial dimension of the standard spin-off transaction is straightforward. Whether the transaction is proceeded by an IPO or not, a standard spin-off results in the pro rata distribution of shares in the new company to the shareholders of the old company. Accordingly, there is no need to value either business. All shareholders receive a pro rata fraction of the combined value of the two companies by definition.

The court-ordered breakup of AT&T and Hewlett-Packard’s strategic spin-off of Agilent Technologies fit within this model of conventional spin-offs. In 1982 AT&T reached an agreement with the Justice Department to end the national telephone monopoly. AT&T created seven regional companies that would provide local telephone services, while AT&T would retain the long distance and telephone equipment manufacturing businesses. The local telephone service assets were transferred to the regional subsidiaries, and then the securities of these companies were distributed to the AT&T shareholders to finalize the separation. The AT&T

Microsoft Corp. (Nos. 98-1232, 98-1233). Of course, Apps Co. shares could be split-off or spun-off without an initial public offering.

15. See id. ¶¶ 48-49.
16. An IPO provides a measure of the value of the new company, but this measurement is not needed to divide the value fairly among the existing shareholders of the old company.
18. See id.
shareholders received one share of common stock in each of the seven regional telephone companies for every ten shares of AT&T they held.

For purely strategic reasons, Hewlett-Packard (H-P) recently decided to separate its test and measurement equipment manufacturing business from the remainder of its operations. H-P created the Agilent Technologies subsidiary to house these specialty assets and then sold sixteen percent of the shares of Agilent through an IPO in November 1999. H-P completed the spin-off in June 2000 by distributing the remaining eighty-four percent of the Agilent shares to H-P shareholders pro rata.

The ownership of AT&T and H-P was and is diffuse, but diffuse ownership is not a prerequisite for preserving relative shareholder value through a conventional spin-off. A company with a controlling shareholder could spin-off a division without risk of transferring value to or from the controller, as long as all shareholders wind up with a pro rata fraction of the shares of both companies. The controlling shareholder, however, must be allowed to hold shares in both firms after the spin-off in order to ensure preservation of each stockholder's relative share of the value of the combined enterprises.

In contrast, in the case of Microsoft, the company cannot simply distribute the shares of the spun-off business pro rata and leave it at that. The court has concluded that effective separation of the businesses would be undermined if the large Microsoft shareholders were to retain an equity stake in both the spun-off and the surviving company. Thus, at the end of the relevant period, the Covered Shareholders may not hold shares in both Ops Co. and Apps Co., and the conventional spin-off technique must be revised or supplemented in some way to meet this additional requirement.

**ALTERNATIVE APPROACHES TO THE DIVISION OF SECURITIES**

Microsoft has been charged with proposing a detailed plan for the

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breakup including the distribution of corporate securities in a fashion that complies with the prohibition on Covered Shareholder cross shareholding.\textsuperscript{23} Below, we explore the two alternative approaches that could be used to accomplish the distribution in compliance with the prohibition--spin-off followed by sale and non-pro rata distribution. Given the difficulties and costs identified with these approaches, the last section of this part considers a third approach that would require refinement of the prohibition but would be consistent with its spirit and that might eliminate some (but not all) costs. Before examining these approaches, however, we will begin by addressing a matter that is common to all three--indirect penalties on individual shareholders.

\textbf{Preliminary Notes on Costs to Shareholders}

As the analysis below will show, any method of division of the securities in compliance with the language or even the spirit of the breakup order would impose a significant cost on the Covered Shareholders or create a risk of transfer among shareholders, a transfer which again would impose a loss on some shareholders to the benefit of others. This conclusion is quite relevant for consideration of the breakup order because individual penalties on Microsoft shareholders are not contemplated in the government’s submissions or arguments nor in the court’s judgment.

The government has not requested the imposition of penalties on individual shareholders, and it has suggested implicitly or explicitly, that the breakup would not involve such penalties.\textsuperscript{24} The Covered Shareholders were not personally named in the indictment, the government has not argued that penalties on these or any other Microsoft shareholders are warranted, and the Covered Shareholders and other Microsoft shareholders have not been given an opportunity to respond to such arguments. In fact, it has been the government’s position that, aside from the elimination of the opportunity to take monopoly profits, Microsoft shareholders will be no worse off following the breakup.\textsuperscript{25} The breakup order, which adopts the government’s requested remedy, similarly does not contemplate the imposition of significant penalties on the Covered Shareholders or any other

\textsuperscript{23} See id. at 64.
\textsuperscript{24} See Plaintiffs’ Reply Memorandum in Support of Final Judgment at 22-23, Microsoft Corp. (Nos. 98-1232, 98-1233).
\textsuperscript{25} See id.
Microsoft shareholder.26

To be sure, it might be argued that penalties on some shareholders would be warranted in this case. The Covered Shareholders, it might be argued, deserve to be penalized individually for their roles in a company that violated the antitrust laws. Gates and Ballmer, in particular, shared responsibility for setting corporate policy and ensuring compliance. More generally, one could take the view that it is valid to impose on shareholders of a company that has been found to violate the antitrust laws whatever costs are needed to create more competitive conditions.

Whatever one's view on these questions, however, it is clear as a matter of due process that substantial financial penalties should not be imposed on individuals in the absence of a conscious judicial determination that finds them warranted. Accordingly, if one were to find that the division of securities accompanying the breakup would impose large costs on shareholders, that determination would have to be given significant attention in any future examination of the breakup order.

Pro Rata Spin Off Followed by Sales

One method that can be used to distribute the securities in compliance with the cross-shareholding prohibition, and perhaps the most natural one, would be for Microsoft to undertake a conventional pro rata spin-off and then require the Covered Shareholders to sell their holdings in one of the two companies quickly. Under the time frame specified in the final judgment, the spin-off and subsequent sales all would have to occur within twelve months.27 The primary advantage of this approach is that it eliminates any valuation problems. As discussed above, a pro rata spin-off fairly distributes the value of the combined companies between the shareholders of the former unitary firm. There are several problems with this approach, however, that should be recognized.

27. See id. at 64. It is not clear that a spin-off followed by a sale of stock by the Covered Shareholders falls within the literal language of the final judgment, which requires that the transfer of ownership of the Separated Business be effected by a distribution or other disposition that does not result in Covered Shareholders owning stock in both businesses. See supra note 7. The two-step process clearly seems to meet the court's objective, however.
Tax Penalty

The Microsoft breakup raises two distinct tax issues. First, as in any corporate reorganization, it is imperative that the distribution of the securities to the shareholders be effected in a manner that avoids recognition of gains. Otherwise, all shareholders who receive a distribution and who have enjoyed a gain on their Microsoft investment would be taxable on a portion of their profits. Because a spin-off followed by the sale of the stock of one of the entities can be a means of distributing corporate earnings and profits while avoiding the dividend provisions of the tax laws, the Internal Revenue Service (IRS) is suspicious of pro rata divisions that are followed by significant sales, particularly if the stock sales are planned in advance of the spin-off. In this case, however, the division and the divestment of the Covered Shareholders’ stakes in one of the entities are mandated by court order. The motivation for the transactions is not in question, and we will assume that Microsoft would be able to obtain a ruling from the IRS that the required sales in this instance would not jeopardize the tax-free status of the spin-off transaction.

Ensuring that the spin-off is tax free should satisfy the non-Covered Shareholders who wind up with shares in both companies and no recognition of gain. The Covered Shareholders who would be required to divest themselves of the shares of one of the two companies under this scenario, however, would not be so lucky. Sale of their shares would result in taxation of gains, and, even at the historically low federal capital gains tax rate of twenty percent, the tax bills would be very large.

Assuming that the market value of Microsoft would be equally divided between Apps Co. and Ops Co., Bill Gates would be required to divest shares worth over $20 billion at current market prices. Because the basis in these shares probably is quite low, a very large portion of the proceeds would be subject to federal and perhaps state capital gains taxes.

In the absence of a divestment requirement, the Covered

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29. Of course state as well as federal tax may be assessed on the Covered Shareholders’ capital gains.
30. All figures are based on information available in January 2001. The $20 billion figure is based on Microsoft’s recent stock price of $55-60 per share and on Gates’ holding of 731,750,000 shares according to Microsoft’s most recent proxy statement.
Shareholders, like all the other shareholders, would be able to defer gain recognition and postpone the tax indefinitely. Indeed, if the Covered Shareholders were to hold these shares until death, their gains on this stock would never be taxed since their heirs would receive a stepped-up basis.\footnote{See I.R.C. §1014 (2000). Company founders and large shareholders often defer selling shares despite the benefits that they would gain through diversification because it is more attractive to postpone (and possibly avoid) taxes on the gains.} Spin-off followed by forced sale, then, appears to impose a significant penalty on the Covered Shareholders that presumably was not contemplated by the designers of the remedy—in Gates’ case the elimination of the opportunity to defer billions of dollars of taxes.

Of course, the tax penalty would be mitigated if the Covered Shareholders were to donate the shares to charity rather than sell them, but contributing shares to charity to avoid tax on a sale does not eliminate the financial penalty; it simply shifts the point of application. Gates, in particular, has donated very large sums to his foundation over recent years.\footnote{According to Microsoft’s press materials, the Bill and Melinda Gates Foundation is endowed at over $21 billion. See Microsoft Corp., Bill Gates’ Biography, available at <http://www.microsoft.com/billgates/bio>.} In selecting a remedy, however, we should not assume that he is interested in donating what might be half of his wealth to charity now. Even if he wishes to give such an amount to charity eventually, donating the entire amount in one year could be very inefficient.\footnote{See MARVIN A. CHIRELSTEIN, FEDERAL INCOME TAX ¶ 7.03 (4th ed. 1985). Donation of appreciated property generally is tax efficient. The donor receives a deduction equal to the appreciated value of the stock and the gift does not trigger recognition of the gain. The deduction generally is limited to 30% of adjusted gross income, however. So even though excess contributions can be carried forward for five years, it could be difficult to take advantage of one-time gifts of this magnitude. See id.}

Theoretically, the accelerated taxation problem also could be solved by permitting these individuals to sell the required shares and reinvest the proceeds in similar property on a tax-free basis. A tax holiday on the sale or like-kind exchange of securities would be most unusual,\footnote{See id. Although unusual, legislative relief focused upon the otherwise harsh tax consequences of an antitrust-related divestment would not be unprecedented. When E. I. du Pont de Nemours & Company was forced to dispose of its holdings of General Motors stock in the 1960s to resolve antitrust concerns, a law was passed that caused the distribution to shareholders to be treated as a return of capital rather than a dividend. See JACOB MERTENS, JR., THE LAW OF} but then again so
is the remedy that is being imposed by the court. Even if this modification were politically feasible, however, it would not be a perfect solution. In fact, it would provide a windfall to the Covered Shareholders by providing them with a means of diversifying tax free that is not available to other shareholders.\textsuperscript{35}

Fire Sale and Potential Loss of Control Premia

A second cost to the Covered Shareholders might arise from the requirement that they sell these large blocks of stock in a hurry. An immediate sale requirement might prevent the Covered Shareholders from capturing a price that reflects the full value of their stock.

Consider the position of Bill Gates specifically for a moment. Gates would be forced to sell a fourteen percent stake in one of the firms following a pro rata spin-off. In a large, otherwise diffusely held company, a block of this magnitude is worth more per share than dispersely held shares. The premium exists because the block carries with it control of the firm, the possibility of gaining control, or at least influence over the firm. In fact, when large blocks of stock are sold under normal circumstances, the seller generally receives an above-market per share price.\textsuperscript{36}

If the shares were to be sold diffusely, this premium would be lost. But even without the control premium, the block would be worth over $20 billion today, so the number of potential buyers for the whole block would be quite limited. Given the small universe of potential buyers for the block


Real estate and most other business and investment property aside from corporate securities may be exchanged for business or investment property of like kind with no recognition of gain or loss. See I.R.C § 1031 (1994). If shareholders were permitted to avoid gain recognition through like kind exchange, however, stock market gains would approach tax-exempt status. See \textit{Chirelstein, supra} note 33, ¶ 17.03.

35. The breakup order, which did not consider the possible tax penalty on the Covered Shareholders, obviously did not consider any kind of tax holiday on sale and reinvestment.

and the short time frame in which to make the sale, Gates would be in a very poor bargaining position and might be forced to sell diffusely or to accept a fire-sale price for the block. Either way Gates would be unlikely to receive the premium value that normally would be associated with a block of this size.

The nature of the block purchaser presents another issue. It is very unlikely that an individual could be found to purchase a twenty billion dollar block, so, if the shares were to be sold as a block, a corporation would be the probable buyer. One natural buyer would be a large company already in or seeking to enter the computer or Internet industry. If a major industry player, such as AOL Time Warner or Oracle, were to purchase the block and gain control of the Microsoft offshoot, however, the objective of increasing competition within the industry might be jeopardized. It is also possible that the block could be sold to a new entrant into the industry or to a general holding company such as Berkshire Hathaway, but, in any event, negotiating such a sale would not be easy, and a forced sale might result in a significant loss to Gates given the small number of possible buyers. Other Covered Shareholders, if any, would face somewhat similar problems, but their much smaller blocks would be easier to sell and would be less likely to carry a control premium, so diffuse sale of these shares would be less of an issue.

A third possibility, in addition to diffuse sale and sale of the blocks to outsiders, would be for the Microsoft offshoots to buy the shares back from the Covered Shareholders after the spin-off has been accomplished and market prices have been established. In this scenario, however, the market mechanism for valuing Gates' control premium is lost, and any value given to Gates beyond the market value of the shares surely would be contested by other shareholders as the result of self-dealing. As discussed below, if the shares that must be divested are not going to be sold in the market, a superior internal solution can be envisioned.

37. The corporate purchaser in a large block transaction often pays for the stock with its own shares or a combination of shares and cash. See DALE A. OESTERLE, THE LAW OF MERGERS, ACQUISITIONS, AND REORGANIZATIONS 35 (1991). Although the final judgment prohibits the Covered Shareholders from owning shares in both Microsoft offshoots, it does not address the possibility of these individuals owning shares in a company that owns a significant stake in one of the offshoots. Such an arrangement would be disfavored.
Non-Pro Rata Distribution of the Securities

We now turn to the second method for distributing the securities in compliance with the cross-shareholding prohibition. Under this method, the securities of the offshoots would be divided so that Covered Shareholders receive no shares in one of the firms and a larger than pro rata fraction of the shares in the other. We will refer to such an approach as a non-pro rata method of distribution.

The language of the government's proposed remedy and the final judgment seems to envision that a plan involving non-pro rata distribution would be used to divide the securities in the two companies in such a way that the Covered Shareholders do not hold shares in both. The order specifically suggests “a distribution of stock of the Separated Business to non-Covered Shareholders of Microsoft.” Of course, simply distributing the stock of the spun-off business to non-Covered Shareholders will not do. Such a distribution would leave the Covered Shareholders with a severely diminished stake overall. The value of the interests of Covered and non-Covered Shareholders could be preserved, however, by having certain shareholders surrender shares in one company in exchange for shares in the other. In the language of corporate reorganizations, a divisive transaction in which shares of the parent corporation are exchanged for shares of the newly independent subsidiary is known as a split-off.

Another standard divisive transaction, known as a split-up, also could be used to accomplish the desired objective. In this scenario Microsoft would form two subsidiaries containing the assets of Ops Co. and Apps Co. On division, the shares of these two companies would be distributed non-pro rata so that the Covered Shareholders would not be in violation of the cross-shareholding prohibition. Because no one would be required to sell any shares in a split-off or split-up scenario, the accelerated taxation and fire sale problems would be eliminated. Non-pro rata distribution, however, raises other difficult problems.

For simplicity of exposition we generally will assume in the following discussion that Microsoft undertakes a split-up transaction in which shares of the parent are exchanged for shares of Apps Co. or Ops Co., in the case of the Covered Shareholders, or for shares of both, in the case of non-Covered Shareholders.

The Overlooked Problems of a Microsoft Breakup

The exchange ratios, i.e., the number of shares of parent stock surrendered for shares of the newly formed offshoots, will depend on the relative value of the pieces and whether the shareholder is obtaining a stake in Ops Co., Apps Co., or both.

An example may be helpful. Assume for the moment that Gates is the only Covered Shareholder and that it is determined that Ops Co. is worth 50% of Apps Co. To preserve everyone’s fraction of the combined corporate value (but ignoring the value of control), Gates’ 14% share of the parent would be exchanged for a 42% stake in Ops Co. or a 21% stake in Apps Co. In the former case the remaining shares in the parent would be exchanged pro rata for 58% of Ops Co. and 100% of Apps Co.; in the latter case for 79% of Apps Co. and 100% of Ops Co. As in this example, we will generally focus our analysis in this subsection on Gates, the Covered Shareholder with the largest stake.

Valuation and Fair Division

The primary challenge involved in non-pro rata distribution of the securities would be to ensure pro rata distribution of shareholder value, and that would require \textit{ex ante} determination of the relative value of the separated companies. As discussed above, the advantage of the pro rata spin-off technique is that there is no need to establish the value of the parts. Because each shareholder gets the same fraction of each of the pieces, the relative value of the two parts is irrelevant. As transfers between shareholders arise. In the AT&T and H-P spin-offs, for example, it was unnecessary to estimate the value of the offshoots or of the rump companies \textit{ex ante}. Although H-P made an initial public offering in the shares of Agilent before spinning off the remaining shares to H-P shareholders, this process had no effect on the relative distribution of the securities to shareholders.

\textit{Ex ante} determination of relative company value is unavoidable in the non-pro rata distribution scenario, however. If, for example, a Covered

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40. As the reader will readily see, the points we make here are general and are not particular to this example. An analysis focusing on a split-off transaction would reach the same result.
41. This is true even if the spin-off is preceded by an IPO of the new company. In this case the “piece” that is divided amongst the shareholders of the old company is the stake retained by the old company in the new company following the IPO.
Shareholder is to receive more shares of Ops Co. and no shares of Apps Co., the relative share values must be determined to decide how many more shares of Ops Co. he is to receive. This aspect of a non-pro rata scheme is particularly worrisome because valuing the Microsoft offshoots would be especially difficult. The breakup would create two large companies, quite dissimilar from others in the industry, which would come into existence under unique circumstances. Given the legal and economic uncertainties surrounding their births and other factors, it is generally acknowledged that valuing the Microsoft offshoots would be particularly speculative. A small error in the relative valuations, moreover, could result in a transfer of billions of dollars between Covered and non-Covered Shareholders.

If the offshoots must be valued, there are two main ways of proceeding. Valuation may be based on expert estimation or on stock market prices. There are problems involved with each alternative.

Valuation Based on Expert Estimation

An expert or experts could be hired to estimate the relative value of the two offshoots and to calculate exchange ratios for a non-pro rata division, but there are several difficulties with this approach. First, one would need to ensure that the expert’s appraisals were not biased. Given the uncertainty in valuation, an expert would have a great deal of discretion in determining the fair value of the two Microsoft pieces. If the expert were to be appointed by the company, there might be some concern that the expert would be influenced to produce a relative value estimate that favors the Covered Shareholders. For example, an investment bank might be enlisted to

42. The government suggests that the sum of the value of the offshoots could exceed the value of the whole and, thus, that Microsoft’s shareholders might be better off following the breakup. See Plaintiffs’ Memorandum in Support of Proposed Final Judgment at 37, Microsoft Corp. (Nos. 98-1232, 98-1233). On the other hand, however, the government argues that the breakup is needed to reduce monopoly power and monopoly profits. See id. at 33. If the government is right in believing that the breakup will reduce monopoly profits now or in the future, it seems very unlikely that the shareholders would be as well or better off. Of course the government is trying to put forth its best case on each issue; it is not trying to calculate value. The apparent inconsistency in the government’s positions, however, highlights the difficulty that an expert would face in valuing these businesses.

perform the valuation, and the bank might have other business or desire to do more business with the company managed by the Covered Shareholders. This conflict of interest could very well work to the disadvantage of the non-Covered Shareholders. For this reason, it might be better to have the expert appointed by the court.

Even if an expert can be relied upon to produce unbiased estimates of value, though, the uncertainty problem remains, and with it the possibility of a significant error in relative valuation. As noted above, estimating the value of these companies would be especially speculative and prone to error. Thus, however carefully the expert is chosen and despite painstaking efforts to guard against the introduction of bias, one would remain concerned that either the Covered or non-Covered Shareholders would lose a great deal of value in the process.

Finally, the expert valuation process could be time consuming and costly. The parties and/or the court must vet and settle upon an expert or experts. Given the uncertainty in valuation, the risk of bias, and the large stakes involved, it might be felt that the various stakeholders should have a right as part of the process to challenge the valuations produced. If there is no administrative avenue for contesting the results--and perhaps even if there is--it would not be surprising if the results of the process were challenged in the courts.

For all of these reasons--estimation uncertainty, the potential for bias, and the possibility of a lengthy and litigated process--reliance on expert estimation would be problematic. The question, then, is whether an objective, market-based mechanism could be designed as a substitute for expert valuation.

Valuation Based on Market Prices

As an alternative to expert valuation, the securities could be allocated based on market values for the two companies that would be established through an IPO or IPOs. For example, the assets of Apps Co. and Ops Co. could be placed in two newly created Microsoft subsidiaries leaving nothing

44. See id. at 41-42. The potential conflict of interest might be mitigated if the Covered Shareholders were to choose to align themselves with different entities or if their choices could be kept secret until the estimates were produced. The non-Covered Shareholders could rely on neither eventuality transpiring, however.
in Microsoft Corporation except for the shares of the subsidiaries. Ten to twenty percent of the shares of each subsidiary could be sold through IPOs. Trading in these shares would establish market prices for the stock of each offshoot and determine the ratios for exchanging shares of Microsoft Corporation for shares of Apps Co. and Ops Co.\footnote{Although the split-up example is perhaps the simplest to envision, it is not necessary to float shares in both offshoots to compute the relative valuation of the companies. Suppose alternatively that Microsoft were to create a single subsidiary that contained the assets of Ops Co. or Apps Co. and that Microsoft Corporation retained the assets of the other business as well as the stock of the subsidiary. An IPO in the shares of the subsidiary would provide a market value for that business, and the market value of the other business could be determined algebraically from the market value of the subsidiary and that of the parent. It may be feasible, moreover, to distribute some of the subsidiary shares to existing shareholders and generate a market and market values without resorting to the IPO market.}

This scenario raises several important questions: Is a Covered Shareholder permitted to choose the company in which he will retain his interest? If so, does he choose before or after market prices have been established? If he chooses before, is that decision kept secret or made public, and can he make a selection that is contingent on the relative values that result?

Under the breakup plan the Covered Shareholders would be forced to divest themselves of their economic and operational interests in one of the two offshoots. Allowing the Covered Shareholders to choose “their” offshoot creates a number of issues, but it might seem important that these individuals be given that choice. Gates and Ballmer obviously are not just financial investors; their careers and lives are invested in Microsoft’s businesses. Choosing how and where one works is an important right, and it will be assumed below that the Covered Shareholders would be permitted to make this choice either before or after the relative values are determined. One cannot know in advance, however, whether the Covered Shareholders would be driven more by personal wealth considerations or by their vocational interests in making their choice. As we proceed, we will often assume that the Covered Shareholders are focusing primarily upon their pocketbooks. The reader should keep in mind, however, as do we, that non-monetary factors may have greater weight. For simplicity, we will again focus on Gates in this analysis.

First, assume that Gates chooses which company he will control and manage after the market prices have been established. Gates may have a
distinct informational advantage in making his selection. Having co-founded and run Microsoft up to the point of the breakup, Gates presumably has a large amount of "soft" private information concerning the various operations and their prospects that is not available to public investors. The evidence on the permissible stock trading by corporate insiders suggests that executives achieve substantial abnormal returns when trading in the stock of their companies. This phenomenon indicates that access to soft information enables insiders to make better judgments than the markets as to value. If, in light of his informational advantage, Gates has a superior ability to judge relative value, he might discover that the market values that are established undervalue one of the two offshoots. He could then choose to shift his investment into the relatively undervalued company and achieve more than his pro rata fraction of the combined value of the two companies.

To protect against this possibility, one could consider scenarios in which Gates makes a choice between the companies in advance of the establishment of relative market values. This choice could be kept secret until the market prices are established or it could be made public. In the former case the market would receive no information from Gates' selection. In this case, to the extent that Gates can anticipate the values that the market will set, Gates would be able to capture an expected gain using his informational advantage just as he would were he to choose ex post after prices are set.

In the latter case—in which Gates' advance selection is made public—the market would be able to draw inferences from Gates' choice as to his judgment regarding the relative value of the companies. In this case, Gates' strategy would be even more complicated. In addition to weighing his vocational preference and estimating the market's valuation of the offshoots as an independent matter, Gates would need to consider what inference the market would draw from his public election. Because Gates has vocational interests and would not be a pure investor, however, the market would not be able to infer fully Gates' private information and estimates from his election. Thus, such inferences would diminish, but not eliminate, Gates' informational advantage.

In the foregoing analysis of scenarios in which Gates makes a selection in advance (whether the selection is made public or kept secret), we have

assumed that Gates would be able to anticipate the relative values that would be set by the market. If Gates were to make an incorrect assessment, however, value would transfer from Gates to the non-Covered Shareholders. Indeed, some might take the view that requiring Gates to choose the company in which his interest will be concentrated before the relative values are determined would unfairly place him at risk.47

To address this concern, we can envision another market-based method of distribution in which Gates would be required to elect “his” company in advance but conditional on the relative market value of the offshoots. Gates might elect to have his investment shifted to Apps Co., for example, if, but only if, the market capitalization of Apps Co. were no more than a specified percentage of the market capitalization of Ops Co.

Here again there are two options: the details of the conditional choice could be made public or kept secret. If the choice were kept secret, this approach would be no different than permitting Gates to choose ex post, and there would be no mitigation of Gates’ informational advantage. Disclosing Gates’ predetermined breakpoint, on the other hand, would provide the market with some information about Gates’ estimation of the relative values of the two companies,48 but it would not eliminate the informational asymmetry, as investors would have to assess the extent to which economic considerations, as opposed to vocational preferences, influenced the breakpoint. This arrangement would, of course, give rise to various strategic considerations. Knowing that the market would make inferences from his disclosed breakpoint, Gates might adjust his breakpoint; the market would recognize this possibility and respond accordingly; and so on. An analysis of the tactics that might be employed in such a case is beyond the scope of this

47. Of course, others might take the view that forcing Gates to make his choice of offshoot unconditionally (that is, not contingent on the relative values) is not unfair. After all, the non-Covered Shareholders get no choice in the matter, and their interests are influenced by Gates’ choice. The difference, though, is that Gates’ entire Microsoft investment will be shifted into one company or the other. In contrast, even though non-Covered Shareholders will also wind up with somewhat disproportionate interests in the two companies, their investment will not be fully shifted to one of the resultant companies.

48. It has been argued that corporate insiders should be required to disclose their intent to trade stock in their companies several days in advance of their trades. The market presumably would learn to distinguish between liquidity trades and trades that are based on soft (or perhaps at times “hard”) inside information, and prices would adjust in such a way as to reduce insiders’ excess trading profits. See Fried, supra note 50, at 349-50. Our approach here simply applies this thinking to a one-time opportunity for the exploitation of inside information.
Article, but these issues would need to be addressed before settling on such an approach.

Aside from the informational and strategic issues considered above, there is one consideration that favors having the Covered Shareholders make an unconditional and publicly disclosed choice prior to the IPO. Gates and Ballmer presumably will maintain an active role in one of the two companies, although not necessarily the same company, and their investments must lie in the companies they manage. It may be necessary to establish the roles of these individuals early in the process in order to lessen the uncertainty for investors and employees.

This dilemma—who chooses and when—becomes more difficult when we consider that post-IPO market prices are not necessarily accurate or stable. Market prices may be more accurate than ex ante estimates, but new stocks often do not settle into a trading range relative to their peers for some time, and the relative market value of Apps Co. and Ops Co. may fluctuate significantly in the early months following the IPOs. Thus, the choice of the date or period over which the exchange ratios are calculated could have a profound effect on the distribution of value under a non-pro rata scheme of division.

Loss of Control Premia

The existence of a control premium makes it even harder to effect a non-pro rata division without transferring value between the parties. Gates’ fourteen percent block provides a substantial measure of control, and, accordingly, his block is worth more per share than the shares of public investors. Moreover, it seems reasonable to assume that the value of a control block is a function of the size of the assets under control. A non-pro rata split-off or split-up will significantly reduce the number of assets under Gates’ control. He will wind up with an increased percentage of the shares of one offshoot but no stake at all in the other. There may be some incremental value associated with increasing the size of a control stake in one of the companies, but once the stake is large enough to provide control, added shares should not carry a large premium over the market price. In any event, any added value arising from a greater stake in one of the offshoots is likely to be more than offset by the loss of control over the other half of the assets.
Moreover, the other shareholders would benefit from Gates' loss. Formerly, their likelihood of receiving a takeover premium was reduced by the presence of a dominant shareholder who might oppose the takeover. After the split-up they are likely to own shares in one company that lacks a dominant shareholder and is a better takeover candidate. Thus, in order to prevent a transfer from Gates to the other shareholders, one would have to calculate the value of the control premium lost and gained and take this into account in setting the share exchange ratios.

Once the positions of the other Covered Shareholders are considered, the control premium picture becomes even more complex. A five percent stake in Microsoft probably carries no control premia currently, particularly since Gates holds a much larger stake. One can imagine a case, though, in which another Covered Shareholder chooses to join the smaller offshoot while Gates goes with the larger. If the two firms are very different in size, a five percent stake could mushroom to fifteen percent or higher. It is conceivable, then, that a Covered Shareholder could acquire a control premium through a non-pro rata division of the securities. In any event, control premia and possible changes in control further complicate the non-pro rata division scenarios.

Risk-Bearing and Liquidity Costs

Assume for the moment that valuation of the Microsoft offshoots and of control premia are not an issue. Non-pro rata division still could produce difficulties because the Covered Shareholders would wind up with a larger percentage share of a smaller company. This compression raises several possible problems. First, concentration of their stakes into a smaller entity would impose substantial risk-bearing costs on the Covered Shareholders who would be much less diversified following the breakup. Diversification would be sacrificed even if the offshoots were evenly sized, but this effect would be aggravated for a Covered Shareholder if his stake were shifted to the smaller of two unevenly sized offshoots. Gates follows a policy of gradually selling shares in the company. As a result, it is reasonable to

49. A 5% stake would grow to 15% if a 5% shareholder wound up with shares in an offshoot that represented one-third of the combined value of the companies.

assume from this practice that diversification has a significant benefit for him, and it is fair to assume that it would for the others as well.  

Second, if the offshoots were unevenly matched in market capitalization, a combined Gates-Ballmer stake in the smaller company might have negative consequences on value because the public market in this heavily concentrated stock would be less liquid. Moreover, if one of the two companies were much smaller than the other, one or more of the Covered Shareholders might be precluded from holding a stake in the company of their choice. If one of the offshoots represents less than about twenty percent of the combined value, these two individuals could not squeeze their investments into the smaller company. Someone would be forced to accept a stake and a management role in the other company. These effects certainly would influence and might dictate the choices of the Covered Shareholders.

**Taxation**

Non-pro rata division of the securities of the two Microsoft offshoots could resolve the Covered Shareholders' cross-ownership problem without causing them to sell shares immediately and incur accelerated capital gains tax. One must keep in mind, however, that unless a tax-free reorganization is achieved, all shareholders with gains on their stock would bear a substantial cost. Thus, straying from the standard divisive transaction models in order to devise a more ideal solution may be problematic. Clever tax lawyers, one can assume, would be able to craft a non-pro rata solution that satisfies all parties as well as the IRS. The issue, however, must not be overlooked.

**Pro Rata Spin Off Followed by Neutralized Voting**

Given the problems highlighted above with attempting to break up Microsoft through a conventional pro rata spin-off of one of the businesses or through non-pro rata division of the securities, it is worth considering whether still other alternatives might be available. In this section an

additional alternative is presented: a pro rata spin-off followed by neutralization of Covered Shareholder voting in one of the Microsoft offshoots. This method could not be adopted without modifying Judge Jackson’s decree, which prohibits the Covered Shareholders from owning stock in both of the companies, but it would be consistent with the spirit and goals of the order.

Presumably the government’s objective in prohibiting the Covered Shareholders from owning an interest or otherwise being involved in both Microsoft offshoots is to reduce the chance of unlawful coordination between these companies. One can understand that prohibiting Gates, for example, from holding a management role in both firms might not be enough. As a large stockholder in both firms following a pro rata spin-off, he would be in a position to influence both of the companies even absent an executive role in one of them. His influence over the non-managed firm would be reduced significantly, however, if his votes in that firm were neutralized. The idea, then, would be to separate the businesses through a pro rata spin-off, prohibit the Covered Shareholders from retaining any managerial role in one of the offshoots, and neutralize the votes of the Covered Shareholders in the non-managed company.

Implementing Vote Neutralization

One way to accomplish this result would be to issue the Covered Shareholders non-voting shares in one of the companies. Issuing non-voting shares, however, would transfer value from the Covered Shareholders to the remaining shareholders. Non-voting shares tend to trade at a discount to shares with voting power.52 Gates, moreover, would lose his control premium if the voting power of his shares were permanently revoked.

Issuing non-voting shares would be overkill, however. There is no reason to limit the voting power of a third party that purchased shares from the Covered Shareholders. Third party purchasers should be able to vote these shares because they would not be in a position to influence coordination between the Microsoft offshoots.

Rather than issuing non-voting shares, the vote of a Covered Shareholder in one of the firms could simply be neutralized until the Covered Shareholder disposes of his stock to an unaffiliated third party. In this way, the value of the shares would not be diminished, but the risk of coordination would be removed. Neutralization could take one of two forms. First, the Covered Shareholders could be prohibited from voting the shares as long as they hold them. The loss of votes could be problematic, however, if majority approval of all outstanding shares is required to approve a merger, a charter amendment, or some other major corporate decision.

Thus, a second approach is probably superior. The shares could be placed in trust with instructions to the trustee to vote the shares in proportion to the actual vote of the remaining outstanding shares. In this way, the Covered Shareholders would have no influence on the outcome of voting and no influence on the management of that company. Of course, the trust arrangement should not restrict the Covered Shareholders from selling or otherwise disposing of the shares, and the trust would end with the sale of these shares to an unaffiliated third party who would receive normal voting rights.

Neutralization of shareholder voting rights is not unprecedented. Recognizing the burden that would be borne by individuals if forced to divest themselves of large numbers of shares immediately, courts overseeing antitrust actions in the past have crafted remedies that include elements of vote neutralization. In 1912, for example, E. I. du Pont de Nemours & Company was forced to spin off a substantial fraction of its explosives manufacturing business to two newly created companies, Hercules Powder Company and Atlas Powder Company. The securities of Hercules and Atlas were distributed to the du Pont shareholders, but voting rights were stripped from half of the shares that were issued to twenty-seven stockholders who had been named as individual defendants in the antitrust action.

In 1950 a district court ordered certain officers, directors, and large shareholders of Alcoa who also held shares in Aluminum Limited (which owned the big Canadian aluminum manufacturer, Alcan) to dispose of their

53. For a more recent example of neutralization, see In re Gaylord Container Corp. Shareholder Litig., 753 A.2d 462 (Del. Ch. 2000).
54. See 1 WHITNEY, supra note 36, at 193.
55. See id.
shares in Alcoa or Aluminum Limited within ten years. Until the shares were sold, the voting rights were transferred to trustees.

Comparison with Previously Considered Methods of Division

The vote neutralization arrangement considered in this Article would be superior to a conventional spin-off followed by the forced sale of shares. Because the Covered Shareholders could hold the neutralized shares in one of the companies for some time, they would not be forced to accept a fire sale price. Of course, we would not expect the neutralized shares to be held for long. These shares would be of greater value to a third party who could vote them. But this arrangement would provide the Covered Shareholders with flexibility that would reduce the penalties discussed above. Gates, for example, could choose to sell his block after some period and reap the associated control premium, or he could choose to sell or donate the shares gradually in order to manage his income and taxes.

As compared with non-pro rata distribution of the securities, this third approach has advantages and disadvantages. Because the shares would be divided pro rata, there would be no need to value the offshoots and no risk of transferring value between the shareholders. The Covered Shareholders would not become less diversified through the process, and they would not have to worry about the relative size of the offshoots in selecting the company they wish to manage. On the other hand, however, this third approach does force the Covered Shareholders to retain nonvoting shares that lack the value of control or to bear the tax cost of selling the neutralized shares. Under a non-pro rata scheme of distribution, the Covered Shareholders would not face accelerated taxation of gains, nor the prospect of holding nonvoting shares.

Even though the vote-neutralization method would be less costly to the Covered Shareholders than a conventional spin-off followed by immediate sale, it would still impose costs on these shareholders. They would not be able to maintain both the voting power and tax deferral that they currently enjoy. But overall, it might turn out to be the least costly method for dividing Microsoft's securities. Thus, even though this method would require amending the breakup order, it would be worth considering

in the event that a breakup ultimately is pursued.

CONCLUSION

Dividing the ownership of the Microsoft offshoots is far from being as straightforward as the government has suggested or as the trial court apparently assumed. Prohibiting Gates and any other Covered Shareholder from owning an interest in both offshoots adds a great deal of complexity to the conventional process of spinning off a business division. As shown in this Article, any method of dividing the securities in compliance with this requirement would either (i) impose a significant cost on Microsoft’s large shareholders or (ii) create a risk of a substantial transfer of value among Microsoft’s shareholders.

The costs and risks that we have identified have not as yet been factored into the larger analysis, but they should be considered in weighing the total social costs and benefits of a breakup. Moreover, if Microsoft ultimately is to be broken up, these costs and risks must be addressed in designing the specific plan of separation. In short, these corporate finance issues should be recognized and taken into account in any future examination of the breakup order.

57. See 2 WHITNEY, supra note 36, at 99.