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CORPORATE FINANCE PROBLEMS
OF A MICROSOFT BREAKUP

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Lucian Arye Bebchuk* and David I. Walker**

Abstract

This paper discusses several corporate finance problems with the ordered breakup of Microsoft that seem to have been overlooked by the parties, the judge, and the commentators. The breakup order prohibits Bill Gates and Microsoft's other large shareholders from owning shares in both of the companies that would result from the separation. Given this mandate, we argue, dividing the securities in the resultant companies between the shareholders is not as straightforward as the government has suggested. We show that any method of distributing the securities that complied with the mandate would either (i) impose a significant financial penalty on Microsoft's large shareholders that is not contemplated in the order, or (ii) create a risk of a substantial transfer of value between Microsoft's shareholders. We examine the difficulties and costs involved in two share distribution scenarios that would comply with the cross shareholding prohibition, and we discuss how the breakup order could be refined to reduce certain difficulties and costs. The primary purpose of this paper, however, is not to identify the best method for dividing the securities resulting from the breakup, but to highlight issues that have been overlooked thus far but should be addressed in any future examination of the breakup order.

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I. Introduction

As has been expected for some time, the final judgment issued by Judge Thomas Penfield Jackson in *United States v. Microsoft Corp.*¹ calls for the division of Microsoft into two independent businesses – an operating systems company and an applications company. The prospect of a structural remedy has spawned extensive attention and analysis. We believe, however, that the parties, the judge, and the commentators have overlooked several important corporate finance complexities that cause the implementation of a breakup to be quite problematic. We propose in this paper to highlight these difficulties and to explore and assess possible approaches that might be taken with regard to each. Our aim is to identify and analyze a set of important yet overlooked issues that would have to be examined as the case moves forward.

Analysis of the ordered breakup has focused on two primary sets of questions. First, many commentators have asked whether the breakup is warranted from an antitrust perspective.² 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

¹ Nos. 98-1232, 98-1233 (D.D.C. June 7, 2000).

² See e.g., George Bittlingmayer & Thomas W. Hazlett, *DOS Kapital: Has Antitrust Action Against Microsoft Created Value in the Computer Industry?* (June 2, 1998) (unpublished manuscript, on file with the authors); Pierluigi Sabbatini, *The Microsoft Case* (unpublished manuscript, on file with the authors); Lee Gomes & Rebecca Buckman, *Unintended Consequences? U.S. Plan to Split Microsoft Might Not Be That Tidy After All, Critics Complain*, *Wall Street Journal*, June 2, 2000, at B1.

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 address 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.³ While these 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 accomplished in recent business

³ See, e.g., Stan J. Liebowitz, *A Fool's Paradise, The Windows World After a Forced Breakup of Microsoft* (Feb. 25, 2000) (unpublished manuscript, on file with the authors); Stan J. Liebowitz, *Breaking Windows, Estimating the Cost of Breaking up Microsoft Windows* (Apr. 30, 1999) (unpublished manuscript, on file with the authors); Robert J. Levinson et al, *The Flawed Fragmentation Critique of Structural Remedies in the Microsoft Case* (Jan. 20, 2000) (unpublished manuscript, on file with the authors); Don Clark, *Dividing Microsoft Isn't Simple Math*, *Wall Street Journal*, June 8, 2000, at B1.

history.’”⁴ 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 Part II of the paper we explain that this restriction, which precludes simple pro rata distribution of the securities to the Microsoft shareholders, distinguishes the ordered breakup from conventional corporate reorganizations in a way that raises substantial implementation problems.

In Part III 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 entails immediate capital gains taxation for the shareholders who are forced to sell and raises the specter of fire-sale pricing and 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. This approach mitigates the problems that are inherent in forcing individuals to divest themselves of shares, but non-pro rata distribution raises serious difficulties of

⁴ Plaintiffs’ Memorandum in Support of Proposed Final Judgment at 37, *United States v. Microsoft Corp.*, Nos. 98-1232, 98-1233 (D.D.C. June 7, 2000) (quoting Decl. of Robert F. Greenhill and Jeffrey P. Williams ¶ 4).

valuation and introduces a very real risk of transferring value among Microsoft's shareholders.

Third, pro rata distribution of the securities could be followed by neutralization of the large shareholders' votes in one of the firms rather than by a forced sale of shares. While this approach would not comply with Judge Jackson's order as it stands today, vote neutralization would seem to achieve the aim of the order, and, since this approach has some advantages (and disadvantages) relative to the other alternatives, it should be considered as well.

We do not purport to resolve which of these alternatives is least problematic. Our goal simply is to highlight problems and complexities that have not been faced by public corporations that have voluntarily spun off a business or even by companies, such as AT&T, that have undertaken court-ordered separations, because restricting the individual ownership of shares has not been an issue in these cases. Here, however, the difficulties must be addressed. Accordingly, we conclude in Part IV with a plea for the inclusion of the corporate finance issues we have raised in future analyses of the Microsoft breakup order.

II. The Financial Complexity of the Breakup

A. 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.).⁵ 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.⁶ 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.⁷ Covered Shareholders are defined as Microsoft shareholders who are present or former employees, officers, or directors and who owned directly or beneficially more than 5% of Microsoft voting stock as of the date of entry of the final judgment.⁸ Apparently, Bill Gates, Paul Allen, and Steve Ballmer are Covered Shareholders with beneficial ownership on the order of 15%, 5%, and 5% of the voting stock, respectively.⁹ The prohibition on cross shareholding by the Covered Shareholders is the source of the difficulties that form the focus of our analysis.

⁵ See Final Judgment at 3, *United States v. Microsoft Corp.*, Nos. 98-1232, 98-1233 (D.D.C. June 7, 2000).

⁶ See *id.* at 2.

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.* at 3. The Separated Business may be either Apps Co. or Ops Co. and the Remaining Business will be the other.

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.* at 3.

⁸ See *id.* at 14.

⁹ Microsoft’s September 1999 Proxy Statement indicates the following beneficial ownership: Gates, 15.3%; Allen, 5.1%; Ballmer, 4.7%. The government’s submissions to the trial court suggest that there currently are three Covered Shareholders. See Plaintiffs’ Reply Memorandum in Support of Final Judgment, *United States v. Microsoft Corp.*, Nos. 98-1232, 98-1233 (D.D.C. June 7, 2000).

B. The Government's Position that the Division of Securities is Straightforward

Let us 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 Corporation now holds only the assets that shall remain with the other business. The government has suggested that from this point forward separation is routine.¹⁰

Testifying for the government, two investment bankers sketched out one possible separation scenario. They suggested that in accordance with standard industry practice Microsoft could sell up to 20% of the shares of New Co. through an IPO and follow the IPO with a tax free split-off or spin-off of the remaining New Co. equity to the Microsoft shareholders.¹¹ 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.¹² In short, the government and the bankers appear to view this as a standard spin-off transaction. We think that they underestimate the difficulties involved.

¹⁰ See Plaintiffs' Memorandum in Support of Proposed Final Judgment.

¹¹ See Decl. of Robert F. Greenhill and Jeffrey P. Williams ¶ 42-48. Of course Apps Co. shares could be split-off or spun-off without an IPO.

¹² See *id.* ¶ 48-49.

C. 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 preceded 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.¹³ 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 Corporation 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 shareholders received one

¹³ 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.

share of common stock in each of the seven regional telephone companies for every ten shares of AT&T they held.¹⁴

For purely strategic reasons, Hewlett-Packard 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 16% of the shares of Agilent through an IPO in November, 1999. H-P completed the spin-off in June, 2000 by distributing the remaining 84% of the Agilent shares to H-P shareholders pro rata.¹⁵

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. However, the controlling shareholder 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 the Microsoft case, of course, 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

¹⁴ See W. Brooke Tunstall, *Disconnecting Parties: Managing the Bell System Breakup: An Inside View* 57 (1985).

¹⁵ See Khanh T.L. Tran, *H-P's Agilent Spinoff Greeted Warmly on Wall Street, as Stock Climbs 41%*, *Wall Street Journal*, Nov. 19, 1999, at B3; *Business Brief, Hewlett-Packard Co.: Agilent Spinoff Completion, Stock Conversion Are Set*, *Wall Street Journal*, May 11, 2000, at A12.

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. We now consider how this might be accomplished.

III. Alternative Approaches to the Division of Securities

Microsoft has been charged with proposing a detailed plan for the breakup including the distribution of corporate securities in a fashion that complies with the prohibition on Covered Shareholder cross shareholding. Section B and Section C 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 in these sections, Section D 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.

A. Preliminary Note on Costs to Shareholders

As the analysis in the following sections 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 a 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. 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, the government's position has been that aside from the elimination of the opportunity to take monopoly profits Microsoft shareholders will be no worse off following the breakup.¹⁶ 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 Microsoft shareholder.

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 as leaders of a company that violated the antitrust laws. 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.

B. Spin-off Followed By Sale

Perhaps the most obvious means of complying with the cross shareholding prohibition would be for Microsoft to undertake a conventional pro rata spin-off and then to 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.¹⁷ The primary advantage of this approach is that it eliminates any valuation problems. As we have 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.

¹⁶ See Plaintiffs' Reply Memorandum in Support of Final Judgment at 22-23.

¹⁷ It is not clear that a spin-off followed by 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.

1. 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 converting ordinary income into capital gains, the 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.¹⁸ 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. However, the Covered Shareholders who would be required to divest themselves of the shares of one of the two companies under this scenario 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

¹⁸ See Treas. Reg. § 1.355-2(d)(2).

20%, the tax bills would be very large.¹⁹ 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 about \$30 billion at current market prices, while Paul Allen and Steve Ballmer would each be forced to sell shares worth about \$10 billion.²⁰

In the absence of a divestment requirement, the Covered 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.²¹ 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.

Of course the tax penalty would be avoided if the Covered Shareholders were to donate the shares to charity rather than sell them, but contributing shares to charity to avoid tax on 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

¹⁹ Of course state as well as federal tax may be assessed on the Covered Shareholders' capital gains.

²⁰ These figures are based on Microsoft's recent stock price of \$75/share. Of course only the gain on the stock sold is taxed, but the Covered Shareholders bases in the shares is likely to be quite low.

²¹ See IRC § 1014. 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.

recent years.²² In selecting a remedy, however, we should not depend on his continuing to do so in the future. Moreover, making such enormous contributions in a single year could be very tax inefficient.²³

Theoretically, the accelerated taxation problem also could be solved by permitting these individuals to sell the required shares and perhaps reinvest the proceeds in similar equities on a tax-free basis. A tax holiday on the sale or like-kind exchange of securities would be most unusual,²⁴ 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.

2. Fire Sale and Potential Loss of Control Premia

²² According to Microsoft's press materials, the endowment of the Bill and Melinda Gates Foundation currently stands at \$17 billion.

²³ 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 Marvin A. Chirelstein, *Federal Income Taxation* ¶ 7.03 (7th ed. 1994).

²⁴ Although unusual, a specific exclusion from the application of the federal capital gains tax 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 1950s to resolve antitrust concerns, a special law was passed that exempted the transaction from the capital gains tax.

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 IRC § 1031. If shareholders were permitted to avoid gain recognition through like kind exchange, however, stock market gains would approach tax-exempt status. See Chirelstein, *supra* note 23, at 290.

The tax issue aside, it could be difficult and costly to sell such large blocks of stock in a hurry. Let us consider the position of Bill Gates specifically for a moment. Gates would be forced to sell a 15% 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 likely to carry a premium for control of the firm or the possibility of gaining control. If the shares were to be sold diffusely, this premium would be lost. But even without the control premium, the block would be worth about \$30 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 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 \$30 billion 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 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.²⁵ Allen and Ballmer 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 we will see subsequently, if the shares that must be divested are not going to be sold in the market, a superior internal solution can be envisioned.

C. Non-Pro Rata Distribution of the Securities

Given the difficulties that we have highlighted with pro rata share distribution coupled with a divestiture requirement, it is worth considering a non-pro rata scheme of division. The language of the government's proposed remedy and the Final Judgment, in fact, seem to envision that a non-pro rata distribution would be used to divide the

²⁵ The corporate purchaser in a large block transaction often pays for the stock with its own shares or a combination of shares and cash. 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. We imagine, however, that such an arrangement would be disfavored.

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.”²⁶ Of course simply distributing the stock of the spun-off business to non-Covered Shareholders won’t do. Such a distribution would leave the Covered Shareholders with a severely diminished stake overall.

However, the value of the interests of Covered and non-Covered Shareholders could be preserved 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. Since 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 will generally 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

²⁶ See supra note 7.

for shares of both, in the case of non-Covered Shareholders.²⁷ 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' 15% share of the parent would be exchanged for a 45% stake in Ops Co. or a 22.5% stake in Apps Co. In the former case the remaining shares in the parent would be exchanged pro rata for 55% of Ops Co. and 100% of Apps Co.; in the latter case for 77.5% of Apps Co. and 100% of Ops Co. As in this example, we will generally focus our analysis on Gates, the Covered Shareholder with the largest stake.

1. 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 ex ante determination of the relative value of the separated companies. As we have discussed, the advantage of the pro-rata spin-off technique is that there is no need to establish the value of the parts. Since each shareholder gets the same fraction of each of the pieces, the

²⁷ 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.

relative value of the two parts is irrelevant.²⁸ No transfers between shareholders arise. In the AT&T and HP spin-off examples that we have discussed, for example, it was unnecessary to estimate the value of the offshoots or of the rump companies ex ante. Although HP made an initial public offering in the shares of Agilent before spinning off the remaining shares to HP shareholders, this process had no effect on the relative distribution of the securities to shareholders.

Ex ante determination of relative company value is unavoidable in the non-pro rata distribution scenario, however, and this 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 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.²⁹ A small error in the relative valuations, moreover, could result in a transfer of billions of dollars between Covered and non-Covered Shareholders.

²⁸ 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.

²⁹ 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. 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 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.

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. We will discuss the problems involved with each alternative.

(a) Valuation Based on Expert Estimation

First, an expert or experts could be hired to estimate the relative value of the two divisions and to calculate exchange ratios for a non-pro rata division. Expert opinions on these values are likely to vary widely, however, for the reasons we have discussed. A cynical observer also might fear that an expert would be influenced to produce a relative value estimate that favors the Covered Shareholders, and such fear would not be groundless.³⁰ Given the uncertainty in valuation, an expert would have a great deal of discretion in determining the fair value of the two Microsoft pieces. An investment bank probably would be enlisted to 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.³¹ For both of these reasons – estimation uncertainty and the potential for bias – reliance on expert estimation would be problematic.

³⁰ See generally Lucian Arye Bebchuk & Marcel Kahan, *Fairness Opinions: How Fair Are They and What Can Be Done About It?*, 1989 Duke L.J. 27 (1989).

³¹ The potential conflict of interest might be mitigated if Gates and Ballmer were to choose to align themselves with the two different entities or if their choices could be kept secret until the estimates were produced. The non-Covered Shareholders could rely on either eventuality transpiring, however.

(b) 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 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.³²

This scenario raises two important questions: Who chooses which company a Covered Shareholder retains an interest in and when is this decision made?³³ Let us assume that Gates chooses which company he will control and manage and that he does so after the market prices have been established. Gates may have a distinct informational advantage in making his selection. Having co-founded and run Microsoft for years, Gates presumably has a large amount of “soft” private information concerning the various operations and their prospects that is not available to public investors. Thus, Gates could

³² 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.

³³ Similar issues exist in the other scenarios, of course, but they become more pointed here.

assess the market values that have been established for the two offshoots in light of his informational advantage, 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.

Alternatively, one could consider a scenario in which Gates makes a choice between the companies in advance.³⁴ Then it would be necessary only to implement the exchange once the market prices of the two offshoots were established. However, forcing him to choose between the companies in advance might impose a significant cost on Gates. As an investor, at least, his choice presumably depends on the exchange ratios.³⁵ Of course one can argue that forcing Gates to choose ex ante 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. The non-Covered Shareholders, on the other hand, will wind up with disproportionate interests in the two companies, but not to the same extent.³⁶

³⁴ This choice could be disclosed to the public or held confidential. Disclosing the choice would provide some additional information to the market.

³⁵ As a manager and entrepreneur, however, Gates' desire to remain involved with certain business operations may be strong enough to trump the financial incentives created by the resulting exchange ratios.

³⁶ If all three Covered Shareholders were to choose to retain an interest in the same company and if the two companies are balanced in market capitalization, non-Covered Shareholders would wind up with 50% smaller interests in one offshoot and 33% larger interests in the other in comparison with pro rata distribution. If Allen and Ballmer were to choose differently from Gates, however, the non-Covered Shareholders' would receive a near pro rata distribution.

There is yet another possible arrangement that might mitigate the informational disparity and still provide Gates with freedom of choice. Gates might be required to elect “his” company publicly and 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. Disclosing the predetermined breakpoint would provide the market with some information about Gates’ estimation of the relative values of the two companies,³⁷ but such an arrangement also would give rise to various strategic considerations. Knowing that the market would react to the estimations that underlie his choice, 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 paper, but these issues would need to be addressed before settling on such an approach.

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

³⁷ 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 Jesse M. Fried, *Reducing the Profitability of Corporate Insider Trading Through Pretrading Disclosure*, 71 S. Cal. L. Rev. 303 (1998). The approach we are putting forward for consideration here simply applies this thinking to a one-time opportunity for the exploitation of inside information. Note that if the Covered Shareholders predetermined breakpoints were not publicly disclosed, this

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. Instability in post-IPO prices could increase the windfall available to the Covered Shareholders if they were permitted to choose their offshoot ex post, or it could result in a windfall or a penalty if they were given no choice or were forced to choose ex ante.

Although it seems burdensome to require Gates and the other Covered Shareholders to select the Microsoft company in which their investments will lie without being able to take the exchange ratios into account, the practicalities of running and dividing the companies may force them to do so in any event. 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.³⁸ In such a case expert or market valuation still creates a risk of transfer of value between Covered and non-Covered Shareholders, but the risk would be evenly shared. The potential for exploitation of inside information by the Covered Shareholders would be reduced or eliminated.³⁹

approach would not be fundamentally different than allowing them to select the company in which they will retain their investments ex post.

³⁸ Paul Allen is a Microsoft director, but apparently he is not currently active in the affairs of the business. There seems to be little reason that Allen, as a pure investor, should be forced to choose between the companies irrespective of the exchange ratios.

³⁹ Given the valuation problem, one may wonder why any firm would voluntarily embark on a non-pro rata scheme of division. Non-pro rata corporate divisions commonly are used to settle

2. 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' 15% 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.

We should recognize, moreover, that the other shareholders should 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

disputes among shareholders of a close corporation by dividing the assets between them and ending the association. In the close corporation setting, however, the shareholders can negotiate the value of the pieces in advance of the division. In fact, they have little choice. They cannot rely on market value since the shares are not publicly traded.

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 Ballmer and Allen's positions are considered, the control premium picture becomes even more complex. Their 5% stakes probably carry no control premia currently, particularly since Gates holds a much larger stake. One can imagine a case, though, in which Ballmer, for example, chooses to join the smaller offshoot while Allen and Gates go with the larger. If the two firms are very different in size, Ballmer's 5% stake could mushroom to 15% or higher.⁴⁰ It is conceivable, then, that Ballmer 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.

3. Risk-Bearing and Liquidity Costs

Let us 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

⁴⁰ 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.

two unevenly sized offshoots. Gates, we observe, follows a policy of gradually selling shares in the company. We can 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.⁴¹

Second, if the offshoots were unevenly matched in market capitalization, a combined Gates-Ballmer-Allen stake in the smaller company might have negative consequences on value since 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 25% of the combined value, all three Covered Shareholders could not squeeze their investments into the smaller company. Someone would be forced to accept a stake and, if Gates or Ballmer, a management role in the other company. These effects certainly would influence and might dictate the choices of the Covered Shareholders.

4. 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

⁴¹ Of course Gates also disposes of shares on a regular basis for charitable purposes, and diversification clearly is not his sole motivation.

models in order to devise a more ideal solution may be problematic. We trust, however, that clever tax lawyers would be able to craft a non-pro rata solution that satisfies all parties as well as the IRS. We simply flag the issue as one that must not be overlooked.

D. Pro Rata Spin-Off Followed By Neutralized Voting

Given the problems we have highlighted 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 we present one additional alternative: A pro rata spin-off followed by neutralization of Covered Shareholder voting in one of the Microsoft offshoots. This alternative 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 appears to 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 negated, 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.

1. Methods of 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.⁴² Gates, moreover, would lose his control premium if the voting power of his shares were permanently revoked.

But issuing non-voting shares would be overkill. 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 since they would not be in a position to influence coordination between the Microsoft offshoots.

Our thought, then, is that the votes of the Covered Shareholders in one of the firms would 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 is required for a merger or a charter amendment. Thus, a second approach is probably

⁴² See Daniel R. Fischel, *Organized Exchanges and the Regulation of Dual Class Common Stock*, 54 U. Chi. L. Rev. 119, 144-46 (1987) (discussing empirical studies).

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 could 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.⁴³

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 shares in Alcoa or Aluminum Limited

⁴³ See 1 Simon N. Whitney, *Antitrust Policies* 193 (1958).

within ten years. Until the shares were sold, the voting rights were transferred to trustees.⁴⁴

2. Comparison with Previously Considered Alternatives

The vote neutralization arrangement that we have considered would have several advantages over a conventional spin-off followed by the forced sale of shares. Since 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 we have discussed. 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. Since 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

⁴⁴ See 2 Simon N. Whitney, *Antitrust Policies* 99 (1958).

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.

The Final Judgment precludes the Covered Shareholders from owning stock in both companies following the breakup. Obviously this neutralized-voting scheme fails to satisfy that directive. If this approach is determined to be superior to the other alternatives, however, it should be considered as the case and appeals move forward.

IV. Conclusion

Dividing the ownership of the Microsoft offshoots is far from being as straightforward as the government has suggested or as the district court apparently assumed. Prohibiting Gates and the other Covered Shareholders from owning an interest in both companies post-separation adds a great deal of complexity to the conventional process of spinning off a business division. As we have shown, 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.