Vanderbilt Law Review

Volume 34
Issue 6 *Issue 6 - November 1981*

Article 5

11-1981

Inflation and the Concept of Reorganization Value

Elizabeth J. Schwartz

RECENT DEVELOPMENT

Inflation and the Concept of Reorganization Value

I. INTRODUCTION

The rehabilitation of a financially troubled corporation in a bankruptcy reorganization proceeding[1] frequently entails the distribution of new equity shares to creditors under a judicially approved plan. In such a case, the court determines the value to be assigned to the shares distributed.[2] Using Supreme Court guidelines, the court first ascertains the present worth of the firm's future earnings expectancy[3] and then apportions that value among the new shares. This procedure follows from the accepted view that "[t]he value of a corporation's stock is determined by expectations regarding future earnings of the corporation and by the rate at which those earnings are discounted."[4] Consequently, both prediction of the reorganized firm's future earnings and selection of a discount rate must precede a judicial determination of the value of

---

1. Federal bankruptcy laws contemplate two alternative forms of relief for corporate debtors: rehabilitation or liquidation. Until October 1, 1979, the governing statute was the former Bankruptcy Act, Act of July 1, 1898, ch. 541, 30 Stat. 544 (current version at 11 U.S.C. §§ 1101-1174 (Supp. III 1979)). Thereafter, new cases were governed by Title I of the Bankruptcy Reform Act of 1978, referred to as the Bankruptcy Code, 11 U.S.C. §§ 1101-1174 (Supp. III 1979). The corporate rehabilitation provisions of the Bankruptcy Act were contained in Chapter X (Corporate Reorganizations) and Chapter XI (Arrangements). Chapter 11 of the Bankruptcy Code embraces both forms of relief. The corporate reorganization cases discussed in this Recent Development were all commenced under Chapter X of the Bankruptcy Act. This Recent Development does not focus on the differences between the provisions of the two statutes. For a discussion of those differences, see Pachulski, *The Cram Down and Valuation under Chapter 11 of the Bankruptcy Code*, 58 N.C.L. REV. 925 (1980). This Recent Development concerns principles of enterprise valuation that remain applicable to all corporate reorganization cases.

2. *See* Protective Comm. v. Anderson, 390 U.S. 414, 421-22 (1968); *In re* Equity Funding Corp. of America, 416 F. Supp. 132, 145 (C.D. Cal. 1975). *See generally* 5 COLLIER ON BANKRUPTCY ¶ 1129.03, at 1129-66 to -67 (15th ed. 1981) [hereinafter cited as COLLIER].

3. Consolidated Rock Prods. Co. v. Du Bois, 312 U.S. 510, 524-25 (1941).

4. J. LORIE & M. HAMILTON, THE STOCK MARKET—THEORIES AND EVIDENCE 6 (1973).

the corporation's shares.[5]

In periods of economic inflation, income forecasts conventionally include allowances for anticipated cost and price increases commensurate with the rate of inflation.[6] As illustrated by the forecasts used to value stock in two recent reorganization cases,[7] the nominally increased net income expected to be derived from such allowances can be an important component of a firm's future earnings estimate. In these, as in most recent corporate reorganization cases, the courts, prompted by advisory opinions of the Securities and Exchange Commission (SEC),[8] employed a formula for determining the present worth of the companies' continuing operations that was said to yield a reorganization value, as distinguished from an immediate market value. The reorganization value formula calculates an average of the estimated annual future earnings of the firm and then discounts that expectancy to its present worth. The discount rate is derived from an average of the ratios of the earnings to the market prices per share of the common stocks of other companies engaged in the same industry.[9] In both recent reorganization cases the courts, by including allowances for inflation in the future earnings estimates, partially offset the effect of the discounting and thus increased the resultant reorganization value.[10]

---

5. *See generally In re* Muskegon Motor Specialties, 366 F.2d 522 (6th Cir. 1966).

6. *In re* Duplan Corp., SEC Corporate Reorganization Release No. 323, in 20 SEC Docket 189, App. B at 216, 221 (1980) [hereinafter cited as Duplan Release]; *In re* Interstate Stores, Inc., SEC Corporate Reorganization Release No. 322, in 13 SEC Docket 757, 771 n.21 (1977) [hereinafter cited as Interstate Release].

7. *In re* Duplan Corp., 9 B.R. 921 (S.D.N.Y. 1980); *In re* Interstate Stores, Inc. 15 C.B.C. 634 (S.D.N.Y. 1978).

8. Section 172 of the former Bankruptcy Act, Act of July 1, 1898, ch. 541, § 172, 30 Stat. 544 (repealed 1978), required that whenever the indebtedness of the reorganized firm exceeded $3,000,000, the court must submit the reorganization plan to the SEC for examination and the SEC, in turn, must submit an advisory report to the court. That requirement has been deleted by the Bankruptcy Code. Under § 1109 of the Code, however, the SEC may still appear and be heard on any issue in a Chapter 11 case. 11 U.S.C. § 1109 (Supp. III 1979).

9. Earnings to price ratios and their reciprocal price to earnings ratios have been used by reorganization courts in valuation formulae for some time. *See, e.g., In re* Imperial '400' Nat'l Inc., 374 F. Supp. 949, 974-75 (D.N.J. 1974); *In re* Yuba Consol. Indus., Inc., 242 F. Supp. 561, 566-67 (N.D. Cal. 1965).

10. This approach has received a great deal of judicial attention in recent damage award cases. *See* Note, *Future Inflation, Prospective Damages, and the Circuit Courts*, 63 VA. L. REV. 105 (1977). Normally, an injured wage earner will receive, as compensatory damages for his lost future income, a lump sum representing the amount of that prospective income, reduced to its present worth at a discount rate equal to the current risk-free rate of interest. Because of inflationary trends, some courts have compensated plaintiffs further

This Recent Development examines the validity of this formula, with and without allowances for future inflation, as a tool for valuing the stock to be distributed to creditors in corporate reorganization proceedings. This discussion considers the valuation method both under Chapter 11 of the new Bankruptcy Code and under Chapter X of the now superseded Bankruptcy Act, which is still effective in many pending cases.[11] The Recent Development describes the purpose and effects of equity share valuations in bankruptcy reorganization proceedings, compares the methods that have been used by the courts with methods used by investors to ascertain the investment value of equity securities, and traces the evolution in reorganization courts of the now most common method of determining reorganization value. It then explains how the use of that method, particularly in conjunction with inflation-inclusive earnings forecasts, can result in overstated stock values. Finally, the Recent Development suggests workable alternatives that would avoid such overstatement without, on the other hand, equating the investment value of the shares to their immediate market value.

II. Purpose and Effects of Valuation

A. *The Doctrine of Absolute Priority*

The reorganization of a corporation in a rehabilitative bankruptcy proceeding serves two important purposes: To keep the enterprise alive by restructuring its financial liabilities,[12] and to compensate as fully as possible those claimants for whom immediate payment is not feasible by allowing them, through the ownership of securities, to share in the firm's future revenues.[13] Generally, a

---

with a premium to cover expected increases in their nominal wages as the purchasing power of the dollar declines. The premium offsets the effect of the discounting and yields a higher award. *See, e.g.*, Kaczkowski v. Bolubasz, 491 Pa. 561, 421 A.2d 1027 (1980). Other courts reject that procedure as requiring economic speculation beyond the scope of judicial competence. *See, e.g.*, Culver v. Slater Boat Co., 644 F.2d 460, 463-65 (5th Cir. 1981); Johnson v. Penrod Drilling Co., 510 F.2d 234, 241 (5th Cir. 1975). The issue of judicial competence is not to be addressed here. This Recent Development focuses instead on whether courts, in valuing a reorganized firm, are making adjustments for expected inflation in a correct manner.

11. Reorganization cases commenced prior to October 1, 1979, will continue to be governed by Chapter X of the Bankruptcy Act. *See* note 1 *supra*. Because of their complexity, reorganization cases are usually not resolved for many years.

12. E. Brigham, Financial Management—Theory & Practice 792 (1977); Blum, *Full Priority and Full Compensation in Corporate Reorganizations—A Reappraisal*, 25 U. Chi. L. Rev. 417, 418 (1958).

13. *See generally* 5 Collier, *supra* note 2, ¶ 1129.03, at 1129-66 to -74. *See also*

court will not confirm a plan of reorganization unless the value of the firm as a continuing enterprise exceeds the liquidation value of its assets.[14]

A corporation usually enters into a bankruptcy reorganization proceeding with a complex financial structure. In addition to common stock, it may have outstanding issues of preferred stock and various debt securities as well as bank and trade debt. The priority of each claim against the firm's assets is specified by bankruptcy law.[15] Generally, in a liquidation proceeding the assets of the firm must be applied to the full repayment of its debts before its equity shareholders may receive anything.[16] Secured creditors have a first claim on their collateral,[17] and certain classes of creditors, including wage and tax claimants, are afforded priority rights in bankruptcy over other unsecured creditors.[18] Under trust indentures, the holders of debentures may be subordinated in right of payment to the claims of all other creditors, and other debt instruments may provide for their subordination to the claims of a specific creditor class, such as bank creditors.[19]

Chapter X of the Bankruptcy Act required the courts to find a reorganization plan "fair and equitable" as a prerequisite to judicial confirmation.[20] The Supreme Court interpreted this requirement as embracing the doctrine of absolute priority: junior claimants might receive distributions under the plan only if the claimants senior in rank received full compensation for the value of their claims; otherwise the plan had to be rejected.[21] Chapter 11

Friendly, *Some Comments on the Corporate Reorganization Act*, 48 HARV. L. REV. 39, 77 (1934).

14. W. SHARPE, INVESTMENTS 210 (1978).

15. *See* Blum & Kaplan, *The Absolute Priority Doctrine in Corporate Reorganizations*, 41 U. CHI. L. REV. 651, 654 (1974). *See also* Citibank, N.A. v. Baer, 651 F.2d 1341 (10th Cir. 1980); *In re* Duplan Corp., 9 B.R. 921 (S.D.N.Y. 1980); *In re* Investors Funding Corp. of N.Y., 8 B.R. 739 (S.D.N.Y. 1980).

16. *In re* Muskegon Motor Specialties, 366 F.2d 522, 525 (6th Cir. 1966).

17. 11 U.S.C. § 506 (Supp. III 1979); Act of July 1, 1898, ch. 541, § 57, 30 Stat. 560 (current version at 11 U.S.C. § 506 (Supp. III 1979)). For a discussion of the rights of secured creditors in bankruptcy cases, see Klee, *All You Ever Wanted to Know About Cram Down under the New Bankruptcy Code*, 53 AM. BANKR. L.J. 133, 150-59 (1979).

18. 11 U.S.C. § 507 (Supp. III 1979); Act of July 1, 1898, ch. 541, § 64, 30 Stat. 560 (current version at 11 U.S.C. § 507 (Supp. III 1979)).

19. *See In re* Duplan Corp., 9 B.R. 921, 923, 932 (S.D.N.Y. 1980).

20. Act of July 1, 1898, ch. 541, § 221, 30 Stat. 560 (current version at 11 U.S.C. § 1129(b)(1) (Supp. III 1979)).

21. Thus, for example, creditors who hold a security interest in assets of the debtor should rank ahead of all other creditors with respect to those assets. Following secured creditors, the general unsecured creditors are entitled to payment in full before any-

of the new Bankruptcy Code modifies that requirement to some extent. The new Code permits the court to confirm a plan even if the absolute priority doctrine is not honored, so long as all adversely affected creditor classes vote in favor of the plan. If any adversely affected class dissents, the doctrine must be satisfied with respect to that class and all classes junior to it.[22]

B. Full Compensation and the Concept of Reorganization Value

Because of the relationship between the pre-petition financial structure of the corporation and the doctrine of absolute priority, the value assigned to a firm's continuing operations can determine whether a class of claimants will receive distributions under a reorganization plan.[23] The absolute priority doctrine requires the court to consider the relative status of each creditor and stockholder class, and then to assess their respective claims to any assets and securities available for distribution on the same basis as if the firm were being liquidated rather than reorganized.[24] If the firm is insolvent (*i.e.*, if the reorganization value of its assets is less than the allowed claims of its creditors), the pre-petition stockholders will be barred, and, depending on the amount of the deficiency, junior creditor classes may also be excluded.[25] The higher the reorganization value assigned to the continuing operations, the greater the chances that junior claimants will receive a portion of the firm's reorganization securities.

The reorganization valuation process necessarily relies on informed but inexact predictions and estimates, and critics have charged that some courts have manipulated the process to obtain a desired result.[26] Commentators have noted that the courts, out of sympathy for junior creditors or stockholders, may exaggerate pro-

---

thing may be allocated to other creditors whose claims may be subordinated by express agreement or otherwise. Finally, after all creditors are paid, and only then, may provision he made for stockholders.

In re Equity Funding Corp. of America, 416 F. Supp. 132, 145 (C.D. Cal. 1975). *See also* Protective Comm. v. Anderson, 390 U.S. 414, 441 (1968); Consolidated Rock Prods. Co. v. Du Bois, 312 U.S. 510, 527 (1941); SEC v. United States Realty and Improvement Co., 310 U.S. 434, 452 (1940); Case v. Los Angeles Lumber Prods. Co., 308 U.S. 106, 115-19 (1939).

22. *In re* Landau Boat Co., 7 B.C.D. 255, 256 (W.D. Mo. 1981); 11 U.S.C. § 1129(b)(1) (Supp. III 1979). *See generally* Pachulski, *supra* note 1, at 944-50.

23. *See* Blum & Kaplan, *supra* note 15, at 656.

24. *See* W. SHARPE, *supra* note 14, at 210.

25. Moulded Prods., Inc. v. Barry, 474 F.2d 220, 226 (8th Cir. 1973).

26. *See, e.g.*, Gardner, *The SEC and Valuation under Chapter X*, 91 U. PA. L. REV. 440, 450-53 (1943).

spective earnings or apply a high capitalization rate in order to reach a level of value that will avoid freezing out these classes.[27] In *Consolidated Rock Products Co. v. Du Bois*[28] the Supreme Court cautioned against this practice: "[U]nless meticulous regard for earning capacity be had, indefensible participation of junior securities in plans of reorganization may result. . . . If [creditors] receive less than full compensatory treatment, some of their property rights will be appropriated for the benefit of stockholders without compensation. That is not permissible."[29] If the "full compensation" to creditors is to be in the form of new securities, the Court warned, then such securities must be "of a value equal to the creditors' claims."[30]

Consolidated Rock did not specifically address the problem inherent in appraising reorganization securities for which there is no market data—that the securities might not achieve a market price equal to their judicially determined worth. Although a court might fairly assess the new securities upon well-informed predictions of earnings, the discounted present worth of those earnings might not correspond to an immediately realizable cash value of the shares distributed to senior claimants as "full compensation."[31] Recognizing this potential disparity, the Court, in *Group of Institutional Investors v. Chicago, Milwaukee, St. Paul & Pacific Railway,*[32] held that senior claimants of the reorganized firm could nevertheless be deemed fully compensated by the distribution of stock of an "equitable," rather than a cash, equivalence to their prior claims.[33]

In light of the Supreme Court pronouncements, reorganization courts have struggled to define the proper relationship between the judicial concept of reorganization value and the ultimate reality of market value. In *In re Equity Funding Corp. of America*[34] a district court stated that while temporary market conditions were not

---

27. *See* Blum, *The Law and Language of Corporate Reorganization,* 17 U. CHI. L. REV. 565, 595-96 (1950); Gardner, *supra* note 26, at 449-50.

28. 312 U.S. 510 (1941).

29. *Id.* at 525-26, 529.

30. *Id.* at 529-30.

31. "In the short term, at least, one would expect investors to demand a higher rate of return than is available from investments in the 'comparable' companies to compensate them for the greater present risk of investing in the resuscitated debtor." Pachulski, *supra* note 1, at 942.

32. 318 U.S. 523 (1943).

33. *Id.* at 565-66.

34. 391 F. Supp. 768 (C.D. Cal. 1975).

determinative, "reorganization value is intended to approach the value that would prevail in a perfect market adequately stocked with willing and informed buyers and sellers."[35] In a later decision the same court defined reorganization value as "the best estimate of value the marketplace would put on a company comparable to [the reorganized company]," adding that "because of uncertainties associated with a company emerging from [reorganization] proceedings, [and] possible initial selling pressure . . . individual shares of stock of [the reorganized company] may trade in the near future at less than reorganization value."[36] In *In re Imperial '400' National Inc.*[37] another district court also concluded that the reorganization value of a stock was tied to its investment value rather than to its market price.[38]

It is evident that courts are more concerned with a reorganization security's investment value in the long run than its short-term market price.[39] As a result, courts must struggle with the uncertain meaning of "long run." Theoretically, a court could justify almost any value for a security on the basis that the selected price should (or could) eventually be obtained in the market. Creditors might then have to wait indefinitely before "full compensation" could be reduced to cash. One noted commentator, however, has suggested that if the firm is given a realistic valuation, and if it realizes its projected earnings, the reorganization securities should reach their long-run investment value in the "not too distant future."[40] The earnings estimate is only one of the variables in the valuation formula that will determine whether that goal is achieved.

C. Elements of Valuation

1. Capitalization of Prospective Earnings

In *Consolidated Rock Products Co. v. Du Bois* the Supreme Court repeated Justice Holmes' earlier statement that "the commercial value of property consists in the expectation of income from it."[41] With that principle in mind, the Court established the

35. *Id.* at 773.

36. *In re* Equity Funding Corp. of America, 416 F. Supp. 132, 145 (C.D. Cal. 1975).

37. 374 F. Supp. 949 (D.N.J. 1974).

38. *Id.* at 978. The court stated, "No matter how carefully I may calculate 'value', I have no control over what may happen to price in the public market. But my concern under the Bankruptcy Act is value and not price." *Id.*

39. *See* Blum, *supra* note 12, at 430.

40. *Id.* at 436-37.

41. 312 U.S. 510, 526 (1941) (quoting Galveston, H. & S.A. Ry. Co. v. Texas, 210 U.S.

rule that a reorganized enterprise, and hence its equity securities, must be valued by capitalizing (*i.e.*, discounting)[42] its prospective earnings to their present worth.[43] While conceding that any estimate of a firm's future earnings is a matter of informed judgment rather than certitude, the Court insisted that these estimations are necessary for a fair valuation of the ongoing enterprise.[44]

Three variables must be considered in calculating the present worth of a firm's income expectancy: The projected annual earnings of the firm (usually averaged to simplify computation), the projected duration of the earnings, and the discount rate to be applied.[45] Once these are known, the present value may be computed by use of the following equation:

$$PV = \frac{e}{1+d} + \frac{e}{(1+d)^2} + \frac{e}{(1+d)^3} \cdots + \frac{e}{(1+d)^n}$$

Here, PV is present value, e is average yearly earnings, d is the percentage discount rate stated as a decimal, and n is the number of years the earnings will continue.[46] Under this formula, if a reorganized firm is expected to earn $100 per year for 10 years, then at a discount rate of 10% (.10) its present value is $614.46. If 100 equity shares are to be distributed to creditors, the present value per share approximates $6.14.[47]

This formula should be used to calculate present value of a company's stock when earnings are expected to be of limited duration. For example, use of the formula would be appropriate in situations when a firm's sources of revenue are subject to depletion.[48] The life and earnings of a business corporation, however, are more frequently assumed to be perpetual. In these more common cases present value may be calculated by simply dividing the firm's average yearly earnings expectancy by the chosen discount rate (*i.e.*,

---

217, 226 (1908)).

42. A capitalization rate is the same as a discount rate and the two terms are often used interchangeably. *See* E. BRIGHAM, *supra* note 12, at 909, 911.

43. 312 U.S. at 525.

44. *Id.* at 526.

45. *See* Blum, *supra* note 27, at 573-75.

46. The formula may also be expressed as follows:

$$PV = e \frac{1-(1+d)^{-n}}{d}$$

47. Often the value placed upon reorganization securities will reflect not only going concern value, but also other corporate property such as excess real estate or excess cash, which is separately appraised and added. *See In re* Imperial '400' Nat'l Inc., 374 F. Supp. 949, 975 (D.N.J. 1974).

48. *See In re* King Resources Co., 651 F.2d 1326, 1333 (10th Cir. 1980).

$PV = e/d$, or, alternatively, by multiplying the same expectancy by the reciprocal of the same discount rate (*i.e.*, $PV = e \times 1/d$. If the firm is expected to earn $100 per year indefinitely and the discount rate is 10%, then its present value is $\$100/10$ or $1,000. The discount rate is equivalent to the fraction $10/100$, of which the reciprocal is $100/10$ or the whole number 10. Multiplying the $100 annual earnings by 10 yields the same present value of $1,000. Many reorganization courts prefer the latter method.[49]

2. Function of the Discount Rate

In the present-worth valuation of any business, the choice of the discount rate (or multiplier) is of obvious importance. The rate chosen must discount for both the simple time value of money (the risk-free rate of return) and the risk that the firm may not achieve its projected earnings (the return for risk).[50] The discount rate, therefore, must reflect the percentage return that a hypothetical investor, knowing all of the facts available to the court, would expect on every dollar presently invested in the reorganized company. To attract such an investor, the reorganization securities would have to offer the same prospective return as might be achieved through investment in the securities of other firms engaged in commercial activities of similar risk.[51] As the risk increases, all other things being equal, the required rate of return also increases, and, conversely, the present worth of the firm's securities declines.[52] Raising the discount rate by one percentage point (or reducing the multiplier by an equivalent fraction) may eliminate an entire class of claimants from participation in the ownership of the securities of the firm. Lowering the discount rate (or raising the multiplier) may have the opposite effect. Thus, val-

---

49. *See, e.g., In re* Muskegon Motor Specialties, 366 F.2d 522, 527 (6th Cir. 1966); *In re* Equity Funding Corp. of America, 416 F. Supp. 132, 144 (C.D. Cal. 1975).

50. For a definition of risk-adjusted discount rates, see E. BRIGHAM, *supra* note 12, at 918. *See also* J. LORIE & M. HAMILTON, *supra* note 4, at 127; Pachulski, *supra* note 1, at 940. The risk-free rate of interest is the rate available on a monetarily default-proof security, such as a treasury bill, upon which the nominal income stream is certain. Since investors are risk-averse, any security whose income stream is subject to uncertainty must offer a rate of return higher than the risk-free rate. *See* E. BRIGHAM, *supra* note 12, at 111-12.

51. *See In re* Equity Funding Corp. of America, 391 F. Supp. 768, 772 (C.D. Cal. 1975). If two securities are subject to the same degree of risk, the investor will choose the one offering a higher expected rate of return. E. BRIGHAM, *supra* note 12, at 111-15.

52. A required rate of return is the minimum expected return that investors will accept from a particular security. If the required return exceeds the return that the investor actually expects to receive, he will sell the security. E. BRIGHAM, *supra* note 12, at 111. *See also* J. LORIE & M. HAMILTON, *supra* note 4, at 7; W. SHARPE, *supra* note 14, at 309.

uation controversies often center on the question of the rate to be chosen.

Early reorganization courts sometimes determined the discount rates without reference to market data. The courts instead selected the rate simply by relying on impressions derived from dealing with the debtor's affairs over a period of time.[53] Recently, in *In re King Resources Co.*[54] one court approached the valuation problem more objectively, in much the same manner as an investment analyst seeking to ascertain the investment value of a new security. The district court determined that the appropriate discount rate for the oil exploration corporation was 14.5%. The court derived the rate from expert testimony that the required rate of return for business equity investments is generally about 2% per annum above the prime interest rate.[55] The court added this 2% figure to the then-existing 7.5% prime rate. Then adding 5% for a risk premium and for potential depletion of the debtor company's resources[56] to the 9.5% equity investment rate, the court arrived at the 14.5% discount rate. The court then used that 14.5% rate to capitalize the projected earnings to present worth over a 20-year period.[57] The Tenth Circuit explicitly approved[58] the method employed in *King Resources*. This method, however, is not typical of those now used in reorganization cases.

For guidance in choosing an appropriate discount rate, most courts now refer to the price-earnings (P/E) ratios of the shares of corporations in the same business as the reorganized firm.[59] By examining the level at which investors price the stock of comparable firms with proven earnings records, the courts try to estimate the rate of return that investors would have expected from the shares of the reorganized enterprise if it had not been involved in bank-

---

53. 5 COLLIER, *supra* note 2, ¶ 1129.03, at 1129-69 to -71; Gardner, *supra* note 26, at 453-64.

54. 651 F.2d 1326 (10th Cir. 1980).

55. The prime interest rate is "the lowest rate of interest commercial banks charge very large, strong corporations." E. BRIGHAM, *supra* note 12, at 917.

56. 651 F.2d at 1336 n.7.

57. *Id.* at 1337 n.12. The district court tested the accuracy of the 14.5% discount rate hy comparing it to earnings-price multiples of other oil companies. *Id.*

58. "[W]e are satisfied that the trial judge's findings on valuation . . . are amply supported by the record and find no legal error in the route he took to conclude that the company was insolvent." *Id.* at 1338.

59. *See In re* Equity Funding Corp. of America, 391 F. Supp. 768, 772 (C.D. Cal. 1975); *In re* Imperial '400' Nat'l Inc., 374 F. Supp. 949, 973-74 (D.N.J. 1974); *In re* Yuba Consol. Indus., Inc., 242 F. Supp., 561, 566-67 (N.D. Cal. 1965).

ruptcy proceedings.[60] The courts reason that if the reorganized firm's earnings prospects have been fairly measured, the calculation of the present value of those earnings, utilizing a capitalization rate equivalent to a return average for the industry, should yield a price that market investors would be willing to pay in the not too distant future.[61]

For example, if the reorganized firm manufactures toys, the court can examine the current and historical P/E ratios of several other toy companies and by averaging them derive a representative ratio or range of ratios for the entire industry. If toy stocks currently sell at 5-times present earnings, and industry earnings are expected to remain constant, then an investor would expect a perpetual 20% annual return on every dollar presently invested.[62] The reciprocal of the P/E ratio (*i.e.*, the earnings-price ratio) is 1/5 or 20%—the required rate of return. If the court finds the 20% rate to be an accurate reflection of the risks and rewards that the market associates with investment in the reorganized firm, then the court may choose 20% as the discount rate. The court can use the reciprocal multiplier of 5 to capitalize the average annual earnings expectancy, as derived from realistic projections over a three to five year period.[63] If the court determines that the equity shares of the reorganized firm are more prone to risk than those of the typical toy company, it may take this risk into account by choosing a

---

60. *See generally* cases cited note 59 *supra*. The SEC also has adopted this method of estimating rates of return. "Prices actually being paid for equivalent commodities are the best evidence of the yield that should be employed in determining current capital values of projected income." Duplan Release, *supra* note 6, at 199.

61. *See* Blum, *supra* note 12, at 436-37.

62. A P/E ratio may be converted into a whole or mixed number that can be used as a multiplier of earnings. The reciprocal of the P/E ratio, that is, the earnings-price ratio, is used as a discount rate or required rate of return. As the required rate of return increases, the multiplier decrcases. If a stock sells at 6-times earnings, courts assume that investors expect a 16.6% rate of return. If it sells at 5-times earnings, investors are presumed to expect a 20% annual return. *See* Duplan Release, *supra* note 6, at 199.

63. In effect, the court discounts the firm's future earnings into perpetuity at 20%. If a security is to be valued into perpetuity, and if its future annual earnings are assumed to be constant, present worth can be calculated by multiplying the annual earnings by the reciprocal of the chosen discount rate. *See* text accompanying notes 48-49 *supra*. Courts rarely translate industry P/E ratios explicitly into required rates of return. Rather, courts use the ratios as guides in determining the appropriate multiplier for the debtor firm's average earnings expectancy. Typically, a court will determine the reorganization value by averaging projected earnings over a three to five year period, and then multiplying that average by the chosen multiplier. Thus, if the debtor firm is expected to earn an average of $1,000,000 per year and the court chooses 5 as the appropriate multiplier, the reorganization value is $5,000,000.

multiplier lower than the industry average.[64]

Even with this risk adjustment, two problems remain when courts use industry P/E ratios as multipliers for capitalizing the prospective earnings of reorganized corporations: if applied to its future earnings expectancy, a firm's P/E ratio will yield an estimate of its future value rather than of its present worth,[65] and that estimate of future value will vary depending on the extent that the earnings estimate has been increased by an allowance for expected inflation.

D. Inflation and Valuation

The real rate of interest on debt securities bearing no risk of default[66] is both relatively low and relatively constant. The nominal market rate of interest on such securities, however, includes the highly variable expected rate of inflation.[67] This nominal risk-free rate represents the time value of money and, as previously discussed, is a necessary component of the discount or capitalization rate used in valuing a reorganized firm.[68] As the risk-free rate increases, the discount rate and, hence, the required rate of return for the firm also increase.[69] A significant increase in the required rate of return attributed to inflationary expectations is generally accompanied by a proportional increase in the firm's nominal income expectancy. The additional nominal earnings, however, ap-

---

64. This method of compensating for added risk has been employed in several cases. For example, in *In re* Keeshin Freight Lines, Inc., 86 F. Supp. 439 (N.D. Ill. 1949), the district court rejected a proposal that an industry multiple of 6.66 should be used in capitalizing the debtor's expected future earnings, stating that

> [i]t is reasonable to assume that if the stocks of such [major concerns] with a very favorable and impressive past earnings record for many years, are selling on a basis of five or six times earnings, then, in arriving at the enterprise valuation of a company such as Keeshin, with its past history of enormous deficits, that the price-earnings multiplier to be applied to Keeshin should be considerably less than that used by market investors in purchasing [the industry leaders'] stock.

Id. at 445. In *In re* Imperial '400' Nat'l Inc., 374 F. Supp. 949, 974 (D.N.J. 1974), the district court rejected a suggested industry multiplier because the proponent, in computing it, had distorted the average by including a firm with an abnormally high multiple.

65. *See* W. SHARPE, *supra* note 14, at 308-10.

66. *See* note 50 *supra*.

67. E. BRIGHAM, *supra* note 12, at 115-17; W. SHARPE, *supra* note 14, at 167-68; Formuzis & O'Donnell, *Inflation and the Valuation of Future Economic Losses*, 38 MONT. L. REV. 297, 299-300 (1977). The nominal rate is the monetary rate of interest, that is, the rate of interest expressed in dollar terms. W. SHARPE, *supra* note 14, at 167.

68. *See* notes 50-51 *supra* and accompanying text; E. BRIGHAM, *supra* note 12, at 163; W. SHARPE, *supra* note 14, at 26-40.

69. E. BRIGHAM, *supra* note 12, at 115-16.

proximately offset the effect of the increased discount rate, leaving the present value of the firm substantially unchanged.[70] This result can be demonstrated by use of the following equation:

$$PV = \frac{e(1+g)}{(1+d)} + \frac{e(1+g)^2}{(1+d)^2} + \frac{e(1+g)^3}{(1+d)^3} \cdots + \frac{e(1+g)^n}{(1+d)^n}$$

Here, PV is present value, e is average yearly earnings, d is the discount rate expressed as a decimal, g is the rate of nominal inflationary growth expected by investors expressed as a decimal, and n is the expected life of the firm in years.[71] In the absence of inflation, real and nominal earnings would be equal, and a firm projected to earn $100 per year for three years, discounted at 10%, would be valued at $249.[72] If the risk-free rate of interest were to increase by 5% due to expectations of inflation, then the correct discount rate would be 15%. Projected nominal income would also be increased by 5% per year, resulting in an adjusted projected nominal income of $105 in the first year, $110.25 in the second, and $115.76 in the third. By then discounting that nominal income at the 15% rate, one obtains approximately the same present value, or $250.[73]

A simpler adjustment for expected price level changes is accomplished by leaving the original (real) earnings projection unchanged and by eliminating the inflationary component of the new discount rate.[74] Thus, in the above example, instead of increasing projected income by 5% per year to adjust for expected inflation, the court could directly offset the new 15% discount rate by lowering it to 10%. Present value could then be computed by applying

---

70. W. SHARPE, *supra* note 14, at 308-10. Sharpe suggests that unless a firm is expected to gain or lose from inflation, the value of its stock should remain unchanged. While inflation may not always increase stock prices, common stocks generally do produce higher real rates of return than are available on debt securities. J. LORIE & M. HAMILTON, *supra* note 4, at 17-20; B. MALKIEL, A RANDOM WALK DOWN WALL STREET 221-22 (2d rev. ed. 1975).

71. *See* W. SHARPE, *supra* note 14, at 310-11. The model in the text is based on the constant growth stock valuation method described by Sharpe, using inflation as a nominal growth rate and assuming that all earnings are paid out as dividends. This model is similar to one already used by courts in adjusting damage awards for inflation. *See* Note, *supra* note 10, at 110-11. The economic principles involved in personal injury damage award computations are analogous to those involved in enterprise valuation, except that the lost income of an injured wage earner is discounted by the risk-free rate alone, with no risk premium added.

72. *See* text accompanying notes 45-47 *supra*.

73. *Id.*

74. *See* Feldman v. Allegheny Airlines, Inc., 382 F. Supp. 1271, 1293-94 (D. Conn. 1974), *modified*, 524 F.2d 384 (2d Cir. 1975); Note, *supra* note 10, at 110-11, 130.

this 10% discount rate to the original earnings forecast since that earnings projection also did not account for inflation. As noted, this calculation yields a present value of $249. Valued in perpetuity, under either method the firm's present worth is $^{e}/_{d-g}$ or $1,000.[75] Using either method, inflationary expectations have no significant effect upon the firm's present value.

Economists, by averaging historical differences between risk-free rates of interest and price-level changes, have derived varying estimates of what they believe to be a constant real rate of interest.[76] Courts have used their findings as an aid in computing damage awards.[77] A recent example is *Doca v. Marina Mercante Nicaraguense, S.A.*,[78] a personal injury case in which the Second Circuit put the economic data to practical application. Seeking a method to account for expected inflation in the computation of damage awards for lost future wages, the court chose to adjust the discount rate rather than to increase the projected real earnings for inflation. According to the Second Circuit, this approach "avoids all predictions about the level of future inflation and focuses instead only on the relationship between the inflation rate and the interest rate."[79] Citing various economic studies, the court determined that approximately 2% per annum was the real time value of money and, thus, was the proper discount rate for determining the present value of a real income expectancy.[80]

In *Doca* the Second Circuit appropriately employed economic theory and data to simplify present value calculations and to avoid speculation about future inflation rates. Two recent reorganization cases suggest that while inflation has become an important component of enterprise valuation, bankruptcy courts have been less successful than the *Doca* court in avoiding inflationary distortions when calculating the present worth of future income expectancies.[81]

---

75. *See* J. FRANCIS, INVESTMENTS: ANALYSIS AND MANAGEMENT, 266-77 (1976).

76. Estimates of the constant real rate of interest have ranged from 1.2% to 4%. *See* Doca v. Marina Mercante Nicaraguense, S.A., 634 F.2d 30, 39 n.10 (2d Cir. 1980), *cert. denied*, 101 S. Ct. 2049 (1981); W. SHARPE, *supra* note 14, at 168-70.

77. *See, e.g.*, Feldman v. Allegheny Airlines, Inc., 382 F. Supp. 1271 (D. Conn. 1974), *modified*, 524 F.2d 384 (2d Cir. 1975).

78. 634 F.2d 30 (2d Cir. 1980), *cert. denied*, 101 S. Ct. 2049 (1981).

79. *Id.* at 39.

80. *Id.*

81. *See* notes 82-131 *infra* and accompanying text.

III. *Interstate, Duplan,* AND INFLATIONARY ADJUSTMENTS

In *In re Interstate Stores, Inc.*,[82] a case concerning the valuation of a reorganized department store chain, the bankruptcy court did not explicitly address the problem of how properly to account for inflation. Inflation, however, did figure in the court's calculations. The court, relying on managerial data, projected and averaged the firm's income over a four year period.[83] It then examined the average P/E ratios of six other department store chains[84] and determined that the representative industry average was 9.[85] Because the six "comparable" companies had each shown higher growth rates and earnings than the debtor firm, the court held that a lower multiplier of 8[86] would be appropriate for Interstate as reorganized.[87] It then multiplied the average of the projected annual earnings by 8 to arrive at Interstate's going concern value.[88] According to the SEC's advisory report,[89] the earnings forecasts that the court accepted from the company's management included an inflation allowance of from 5 to 6% per year.[90] Therefore, when the court multiplied the nominal earnings expectancy by 8, its inflationary component was also multiplied.

The court in *In re Duplan Corp.*[91] also used income forecasts expressed in nominal (inflation increased) rather than real (constant value) dollars. The reorganization of Duplan required the valuation of two operating divisions. The apparel manufacturing division[92] projected that its nominal income would increase over a four year period,[93] not only as a result of increased sales, but also

---

82. 15 C.B.C. 634 (S.D.N.Y. 1978).

83. The court adopted the trustee's average of four fiscal years ending February 3, 1980 and estimated future annual earnings at $13,800,000. *Id.* at 653.

84. *Id.* at 654. The SEC advisory report indicates that the companies cited as comparable included Child World, Tandy, Payless Cashways, Pay 'n Pak, Best Products, and Service Merchandise. Interstate Release, *supra* note 6, at 776.

85. 15 C.B.C. at 655.

86. The multiplier of 8 is equivalent to a perpetual discount rate of 12.5%.

87. 15 C.B.C. at 654-58.

88. The court's initial determination of Interstate's going concern value was $109,460,000, although the estimated average earnings of $13,800,000 when multiplied by 8 yield a value of $110,400,000. *Id.* at 655. The court later stated that the going concern value should be increased by $1,740,000 to reflect interest income for fiscal 1978 and 1979. *Id.* at 657.

89. For an explanation of SEC advisory reports, see note 8 *supra.*

90. Interstate Release, *supra* note 6, at 771 n.21.

91. 9 B.R. 921 (S.D.N.Y. 1980).

92. This division included Wundies Inc. and Kickaway Corporation.

93. The court adopted income projections for the years 1980 through 1983. 9 B.R. at 926.

because of annual inflationary increases.[94] The button manufacturing division[95] made its four year earnings projections by assuming a 2% per annum real growth in sales volume over and above a 7.5% per annum nominal gain attributable to inflation.[96] The court, by accepting a consolidation of the two forecasts,[97] estimated Duplan's average future annual earnings at $2,890,000.[98] It then reviewed the market data for fifteen other textile and apparel concerns[99] over the prior five year period[100] and found that the average of their P/E ratios ranged from a low of 5.1 to a high of 6.3.[101] Because Duplan was smaller and of less proven stability than any of the other companies,[102] and because the firm that competed most directly with Duplan[103] had an average P/E ratio of only 4.9,[104] the court selected 5 as the appropriate multiplier for capitalizing Duplan's annual future income expectancy. The court observed that this relatively low multiplier also reflected the uncertainties inherent in the earnings forecasts.[105] By multiplying the projected average earnings by 5, the court arrived at its conclusion that Duplan's reorganization value was approximately $14,450,000.[106]

Senior noteholders of Duplan,[107] who were to be compensated under the reorganization plan with common stock valued in conformity with the court's analysis, objected that the stock was overvalued. They argued that since the multiplier chosen by the court was based on the present P/E ratios of comparable firms, the multiplier would be valid only if applied to the achieved earnings—not the projected earnings—of Duplan.[108] The noteholders further

---

94. Duplan Release, *supra* note 6, at 216.

95. This division included Rochester Button Company and Kitchener Button Industries, Ltd.

96. Duplan Release, *supra* note 6, at 221.

97. *Id.* at 195-96.

98. 9 B.R. at 926, 928.

99. *Id.* at 926. The court relied on the reorganization trustee's economic data.

100. *Id.*

101. *Id.*

102. Duplan Release, *supra* note 6, at 196.

103. House of Ronnie, Inc. was Duplan's most direct competitor. Duplan Release, *supra* note 6, at 196.

104. 9 B.R. at 926-27.

105. *Id.* at 927-28.

106. The court adopted the $14,450,000 figure on the recommendation of the reorganization trustee. *See* Duplan Release, *supra* note 6, at 196.

107. The Gal-Lazare Group of Senior Subordinated Noteholders objected to the plan. 9 B.R. at 925-26.

108. *Id.* at 927. The noteholders were not entirely accurate, since historical as well as

urged that since P/E ratios already reflect an expectation by investors of future earnings, the court's multiplication of Duplan's higher expected earnings by the P/E ratio gave double effect to the same expectations.[109] The noteholders criticized the inclusion of inflationary adjustments in the earnings forecasts as an unsupported assumption concerning the future economy.[110] They asked either that a lower multiplier be used or that the projected average earnings be discounted to present value before applying the multiplier.[111]

The court rejected the noteholders' arguments. Citing *Consolidated Rock*,[112] the court held that Duplan's reorganization value must be calculated not upon its actual earnings achievements, but only upon its projected future income.[113] The court, citing *Doca*, insisted that a provision for expected inflation was properly included in the earnings projections: "Inflation will inevitably require Duplan to raise its prices as it keeps pace with rising costs. The marketplace necessarily enters this factor into its calculation of a company's value. It is therefore a necessary element of earnings projections."[114]

IV. Analysis

To avoid erring in the valuation of reorganization shares to be distributed to creditors, a court must do more than assess the corporation's future income prospects as accurately as possible with proper allowance for inflation. The court must also choose a discount rate (or multiplier) that reflects both the current risk-free rate of interest and a risk premium for the uncertainty of the projected income.[115] Rates of return on equity investments are established in the market through this type of analysis.[116] Indeed, this method is really the only proper way to discount the income expectancy of a reorganized firm. Only if the courts follow this analysis will the discount rate correctly offset the inclusion of inflationary allowances in the earnings projections and will a true present value

---

present ratios of the comparison firms were examined. *Id.* at 926.

109. *Id.* at 927.
110. *Id.*
111. *Id.*
112. Consolidated Rock Prods. Co. v. Du Bois, 312 U.S. 510 (1941).
113. 9 B.R. at 927-28.
114. *Id.* at 928.
115. *See* notes 50-51 *supra* and accompanying text.
116. E. Brigham, *supra* note 12, at 113-18.

be obtained.

A multiplier based on industry P/E ratios cannot properly be used to capitalize either an inflationary or a real income expectancy. A company's P/E ratio is merely a comparison between the current market price of its stock and its most recently reported earnings per share. The market price represents a consensus among investors of the stock's value. The present earnings per share is but one of several considerations that investors have taken into account. Investors, for example, also consider their own projections of future growth in earnings.[117] The P/E ratio, therefore, is the dependent variable in the valuation process.[118] The P/E ratio does not create the price—it exists because of it.

The use of P/E ratios as future earnings multipliers requires the assumption that investors price stocks by discounting an earnings stream that is both constant and perpetual without making any allowance for either real or inflationary growth. If that were the way investors priced stocks, the ratios would reflect the discount rates that investors use to determine the present value of their future expectancies.[119] In a world without inflation, if a debtor firm were in an industry with little or no real growth, the use of P/E ratios as future earnings multipliers would produce only negligible discrepancies between the reorganization value thus calculated and the actual present worth. In that situation the real earnings of all representative companies could be expected to be constant from year to year, and one could legitimately assume that "the market multiplier for current earnings does not vary substantially from the multiplier investors are using in pricing foreseeable earnings."[120]

The economic environment in which the market valuation process occurs, however, is not this simple. Investors rarely assume that a firm's most recently reported earnings will continue at the same level into perpetuity; rather they anticipate earnings growth

---

117. *See* W. SHARPE, *supra* note 14, at 23.

118. J. LORIE & M. HAMILTON, *supra* note 4, at 136.

119. The present value of a constant perpetual annual stream of earnings is equal to the yearly earnings divided by the discount rate (e/d) *or* multiplied by the reciprocal of the discount rate ($e \times 1/d$). Thus, if all investors expect a particular stock to earn $10 a year forever and all investors discount those future earnings at a rate of .10, the present value of the stock will be $100. The P/E ratio would be $^{100}/_{10}$. The reciprocal of that P/E ratio ($^{10}/_{100}$) is equivalent to the perpetual discount rate (.10) investors used in determining present value.

120. Blum, *Corporate Reorganization Doctrine as Recently Applied by the Securities and Exchange Commission*, 40 U. CHI. L. REV. 96, 99 (1972).

or decline.[121] If a firm has growth prospects, either real or inflationary, the ratio of current price to current earnings per share will exceed the ratio of current price to estimated future earnings per share. When real or inflationary growth is anticipated, the multiplication of next year's expected earnings by this year's P/E ratio will yield a measure of future rather than present value.[122] Thus, when the courts in *Interstate* and *Duplan* multiplied the inflation-inclusive earnings forecasts of the debtor firms by a risk-adjusted P/E ratio,[123] they derived estimates of value that were future and nominal rather than present and real. The courts, apparently, misunderstood the mechanics of the market.

When investors expect real rather than inflationary earnings growth from a firm, the company's stock price will rise, as will its P/E ratio. The reciprocal of the ratio, however, is not the discount rate that the market used to capitalize the higher real earnings expectancy. The higher P/E ratio simply reflects that the actual discount rate for the future earnings has been offset by an expectation of real growth, and thus reduced.[124] Inflationary expectations prompt investors to project growth in a firm's earnings even when no real growth is expected. In such situations, however, stock prices and P/E ratios will not necessarily increase.[125] As the risk-free rate rises because of inflationary expectations, investors also increase the rate by which their expectation of the inflated future income is discounted.[126] All market prices, and hence all P/E ratios, include these adjustments investors make for their expectations of price level changes.[127] Again, the P/E ratio will not yield the discount rate actually used to capitalize future earnings. The ratios will be unchanged only because the market has offset the

---

121. *See* J. FRANCIS, *supra* note 75, at 264.

122. *See* W. SHARPE, *supra* note 14, at 308-09. Describing one method of valuation employed by analysts, Sharpe writes, "First, a stock's future *earnings per share* . . . a year or so hence will be estimated; then the analyst . . . will estimate a 'normal' *price-earnings ratio* . . . for the stock. The product of these two numbers gives the estimated future price." *Id.* at 308 (emphasis in original). The "normal price earnings ratio" occurs when a stock sells at the price at which the analyst believes it *should* sell, that is, when its market price equals its intrinsic worth. *Id.* at 309. The purpose of the court's examination of average ratios of the debtor's competitors is to determine the normal ratio for the reorganized firm.

123. *See* notes 82-106 *supra* and accompanying text.

124. *See* J. FRANCIS, *supra* note 75, at 264-67.

125. *See* J. LORIE & M. HAMILTON, *supra* note 4, at 20; W. SHARPE, *supra* note 14, at 310.

126. *See* notes 66-73 *supra* and accompanying text.

127. *See* W. SHARPE, *supra* note 14, at 168. "If investors are concerned with real returns, all securities will be priced so that expected monetary returns incorporate expected inflation." *Id.*

effect of an increased discount rate by projecting correspondingly increased nominal earnings.

The process by which the market adjusts for future increased inflation is the same as the process that simultaneously creates higher interest rates—a principle that the Second Circuit clearly understood in *Doca*.[128] The court in that case discounted the wage earner's real income expectancy at a 2% rate because it expected that rate to be the nominal future interest rate less its inflationary component. The 2% rate, therefore, was found to be the real time value of money.[129] The *Duplan* court did not err by citing *Doca* as authority that inflation should be considered.[130] The court, however, failed to realize that if the reciprocal of the industry P/E ratio is used as a discount rate for the predicted earnings of a firm, that rate should be treated as was the 2% *Doca* rate—as one from which the expected inflation premium has already been subtracted. To capitalize an inflation-adjusted earnings forecast by a multiplier derived from industry ratios would be comparable to using the 2% *Doca* rate in discounting after the wage earner's expectancy had already been increased to reflect nominal gains through inflation. The Second Circuit understood this and properly refused to allow any further consideration of inflationary gains in the wage earner's income expectancy.[131] The formula for calculating reorganization value employed in both *Interstate* and *Duplan,* however, gave redundant consideration to purely nominal projected growth, and thereby tended to overstate the present values.

V. Conclusion and Proposals

In *Interstate* and *Duplan* the courts overlooked the basic purpose of enterprise valuation—to determine the *present* worth of the debtor firm's earnings expectancy.[132] The method used by both courts to ascertain reorganization value did not yield the present worth of the debtors' operations and may have resulted in overvaluation at the expense of senior claimants. Part of the courts' mistake was their use of inflation-inclusive earnings forecasts in the valuation formula. Nevertheless, this Recent Development does

128. Doca v. Marina Mercante Nicaraguense S. A., 634 F.2d 30 (2d Cir. 1980), *cert. denied,* 101 S. Ct. 2049 (1981).

129. *Id.* at 39.

130. *In re* Duplan Corp., 9 B.R. 921, 928 (S.D.N.Y. 1980) (citing Doca v. Marina Mercante Nicaraguense, S.A., 634 F.2d 30 (2d Cir. 1980)).

131. 634 F.2d at 40.

132. Consolidated Rock Prods. Co. v. Du Bois, 312 U.S. 510, 526 (1941).

not suggest that courts should rely solely on current market prices of the debtor's stock in assessing enterprise worth, or that courts have been misguided in characterizing reorganization value as an estimate of long run investment value rather than short run market price. Courts, however, must be careful not to confuse long-term investment value with future value in determining enterprise worth. The investment value of any security is the *present* worth that an investor, having discounted his projections of the company's future income, believes the asset ought to have. The investor then compares his subjective determination of present value with the market price and bases his purchase or sale decision on the results of the comparison. Implicit in that decisional process is the notion, judicially recognized in *Institutional Investors*, *Equity Funding*, and *Imperial '400'*, that long run investment (or intrinsic) value does not always coincide with short run market consensus.[133] Nevertheless, both are estimates of a present rather than future value.

Market investors, not having at their disposal all of the information available to a court, may not form the same conclusions about value as the court. Still, a court, in appraising reorganization value, should go through the same process as an informed investor[134] seeking to identify securities whose investment values have not yet been reflected in the market place. Moreover, if a court is to derive the "best estimate of value" which informed market investors would assign to a company comparable to the debtor,[135] the court should use all available information as an investor would use it. A reorganization court should determine the discount rate for future earnings expectancies as the typical investor would, by first determining the risk-free rate of return and then adding an appropriate risk premium.[136] Current risk-free rates are ascertainable by reference to the return on government securities. Enterprise risk can be measured by reference to published statistics that show the

---

133. J. LORIE & M. HAMILTON, *supra* note 4, at 271; W. SHARPE, *supra* note 14, at 345. *See* notes 32-38 *supra* and accompanying text.

134. *See In re* Equity Funding Corp. of America, 391 F. Supp. 768, 773 (C.D. Cal. 1975) (Reorganization value is the value that would exist in a perfect market adequately stocked with willing and *informed* investors).

135. *In re* Equity Funding Corp. of America, 416 F. Supp. 132, 145 (C.D. Cal. 1975).

136. While courts recognize that a proper discount rate should reflect the risk associated with the debtor's business, the risk-free component is rarely accounted for explicitly. *See In re* Muskegon Motor Specialties, 366 F.2d 522, 527 (6th Cir. 1966); *In re* Imperial '400' Nat'l Inc., 374 F. Supp. 949, 974 (D.N.J. 1974); *In re* Keeshin Freight Lines, Inc., 86 F. Supp. 439, 445 (N.D. Ill. 1949).

historical relationship between average market returns and returns on the securities of specific firms that are comparable to the debtor.[137] Alternatively, a court might employ the *King Resources*[138] approach, and add to the current prime interest rate an equity investment premium of 2% plus an additional premium for the risk associated with the debtor's business.[139] Either procedure could be conveniently used, particularly if the court has access to expert testimony concerning the relevant components of a current discount rate. Both procedures are especially suitable for debtor firms involved in high growth industries, in which the earnings-price ratios of its competitors are least likely to reflect the actual discount rates used by investors to capitalize future earnings.[140] Furthermore, explicit inclusion of the risk-free rate would enable courts to make accurate adjustments for inflation, either by increasing projected earnings *or* by reducing the discount rate by its inflation premium.

If a court insists on using an industry P/E ratio as a multiplier, it must make a number of corrections. The court must extract any inflationary component from the earnings forecast before it applies the multiplier in order to obtain an estimate of real—as opposed to nominal-future value. If real future earnings exceed current earnings, the court must discount the real future value to present worth. To appropriately discount real future earnings, the court might start, as in *Doca,* with the real time value of money (2% per annum) and add, as in *King Resources,* an additional 2% for an equity investment premium, to reach a discount rate of 4%. If the risk premium has already been accommodated in the choice of a multiplier, as in *Interstate* and *Duplan,* the 4% rate would be

---

137. These statistics that are measures of enterprise risk are beta coefficients. If an investor owned all existing stocks, his average return would be higher than the rate on riskless assets. The difference between the average market return and the riskless rate is termed the market risk premium. If the risk of a particular security is equal to the average market risk, the stock's beta coefficient will be 1. If the stock is twice as risky as the average market stock, its coefficient will he 2. Hence, the risk premium of any stock may be measured as follows:

$$Risk = b(K_m\text{-}R_f)$$

Here, b is the beta coefficient, K_m is the average market return, and R_f is the riskless rate of interest. The required rate of return for a particular stock is thus $R_f + b(K_m\text{-}R_f)$. *See* E. BRIGHAM, *supra* note 12, at 110-21; W. SHARPE, *supra* nota 14, at 274-78.

138. 651 F.2d 1326 (10th Cir. 1980).

139. *Id.* at 1336 n.7. The district court did not account for the risk-free rate explicitly but did include the prime rate in the calculation of an appropriate discount factor. The prime rate incorporates the risk-free rate.

140. Blum, *supra* note 120, at 99-100.

an appropriate rate by which to reduce the real earnings expectancy to current value. Otherwise, the court must also add a risk premium. The use of either suggested method would avoid the errors of the *Interstate* and *Duplan* courts, and would result in an estimate of reorganization value more reflective of actual present corporate worth.

ELIZABETH JANE SCHWARTZ