

January 1989

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Recommended Citation

James R. Repetti. "The Use of Tax Law to Stabilize the Stock Market: The Efficacy of Holding Period Requirements." *Virginia Tax Review* 8, (1989): 591-637.

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THE USE OF TAX LAW TO STABILIZE THE STOCK MARKET: THE EFFICACY OF HOLDING PERIOD REQUIREMENTS

*James R. Repetti**

I. INTRODUCTION

For over half a century, federal income tax laws have employed holding period requirements in order to discourage stock market speculation. In particular, investors have been required to hold capital assets for a specified period of time in order to qualify for the long-term capital gains preference, and mutual funds are currently required to derive less than thirty percent of their income from the sale or other disposition of stock held for less than three months in order to be taxed as flow-through entities. This article proposes that the use of holding periods to curb speculation is inappropriate and decreases societal welfare.

Speculation has been condemned for many reasons. Speculation was initially viewed as an evil because it was perceived to be synonymous with market manipulation.¹ Although no longer viewed as a form of market manipulation, speculation has recently regained suspect status as a result of being linked to volatility in stock prices. For example, the Report of the Presidential Task Force on Market Mechanisms suggested that part of the unprecedented rise in stock prices during the summer of 1987 which preceded the stock market crash in October, 1987 was attributable to speculation by institutions which invested heavily in common stocks during the rising market.² Similarly, the General Accounting Office Report to Congress on the October 1987 stock market crash attributed the inflated market which preceded the crash in part to

* Assistant Professor of Law, Boston College Law School. The author wishes to thank Hugh J. Ault, Denis J. Brion, David S. Davenport, Scott T. FitzGibbon and James D. Rogers for helpful comments. Thanks are also owed to Roger French for research assistance and Fran Piscatelli for typing assistance.

¹ See N.Y. Stock Exch. Office of Economic Research, *An Analysis of the Capital Gains Holding Period 6* (July 1982) (citing Untermyer, *Speculation on the Stock Exchanges and Public Regulation of the Exchanges*, in *Am. Econ. Ass'n Meeting, Speculation on the Stock Exchanges* (December, 1914).

² See Report of the Presidential Task Force on Market Mechanisms I-1 (Jan. 8, 1988).

excessive speculation.³ Felix G. Rohatyn of Lazard Freres & Co. summarized the perceived relationship between speculation and stock market volatility when he stated:

The fundamental weakness in the securities markets, world-wide, is the result of excessive speculation, excessive use of credit, and inadequate regulation. This speculative behavior is not driven by individuals, as was the case in the 1920's, but by such institutions as pension funds, banks, savings and loans and insurance companies. In many cases these institutions are backed by federal government guarantees. Curbing speculation and promoting investment must be the objective of reform.⁴

As part of his solution to curb speculation, Rohatyn suggested that a fifty-percent tax be imposed on gains from the sale or exchange of securities held for less than a year. This tax would be applied to entities which are currently tax-exempt as well as taxable entities. He also suggested that the tax on capital gains should be reduced to fifteen percent for securities held for more than five years.⁵

The Treasury Department has similarly intimated that the increased volatility of the stock market may be related to the repeal of the long-term capital gains preference and its concomitant hold-period requirement in 1986.⁶ Moreover, the Staff of the Joint Committee on Taxation has noted that if a stock transfer tax is

³ Stock Market Crash of October 1987, GAO Preliminary Report to Congress 38, Fed. Sec. L. Rep. (CCH) No. 1271, Feb. 3, 1988, Part II at 38 (market participants which had been interviewed attributed the inflated market to "the belief of many investors that they were international financial experts and by their desire to make the last dollar before taking their profits in an overvalued market"). See also Sloan & Stern, How $V_0 = V_s N(d_1) - E/e^{tN(d_2)}$ Led to Black Monday, 141 *Forbes*, Jan. 25, 1988, at 55, 56 (speculation contributed to market crash because traders believed that they had eliminated risks).

⁴ See Rohatyn, Institutional "Investor" or "Speculator"?, *Wall St. J.*, June 24, 1988, at 18, col. 4.

⁵ See *id.* Similarly, Professor Louis Lowenstein has recommended that an appropriate method to curb speculation would be to apply a one hundred percent tax to gains on stocks held for less than one year. Lowenstein, *Wall Street, Take A Valium*, *Wall St. J.*, Nov. 9, 1987 at 27, col. 3.

⁶ See M. Darby, R. Gillingham & J. Greenlees, *The Direct Revenue Effects of Capital Gains Taxation: A Reconsideration of the Time-Series Evidence 2* (Office of the Assistant Sec'y for Econ. Policy, U.S. Treas. Dep't Research Paper No. 8801, 1988) ("Among the many important topics in capital gains tax law, such as its influence on stock market volatility or the proper treatment of inflation, the issue of revenue estimation remains the subject of greatest controversy and debate.")

enacted, it may be desirable to apply a higher tax to stocks with shorter holding periods in order to discourage speculation.⁷

To date, no study has been published which examines the impact of the repeal of the long-term capital gains preference on stock market volatility. However, recent studies indicate that the increase in stock market volatility coincided with the repeal of the long-term capital gains preference.⁸ It is possible that this increase in volatility was attributable to the repeal of the long-term capital gains preference which generally applied to stock purchased on or after July 1, 1986 and for stock sold after December 31, 1986. However, as this article will discuss⁹, several other plausible explanations exist for the increased volatility as well.

Even after the repeal of the capital gains deduction, the Internal Revenue Code of 1986, as amended (the "Code") still contains a provision directed at curbing speculation. Section 851(b)(3) of the Code requires that regulated investment companies, generally known as mutual funds, derive less than thirty percent of their gross income from the sale or exchange of securities held for less than three months in order to retain status as a flow-through entity for federal income tax purposes.¹⁰ This provision is often referred to as the "short-short" rule. If a mutual fund does obtain thirty percent or more of its gross revenues from the sale of securities held less than three months, its flow-through status is in effect revoked with the result that its earnings are taxed twice—once when the mutual fund earns taxable income and again when the earnings are distributed as dividends to its stockholders.¹¹

⁷ See Joint Committee on Taxation Staff Memorandum on Issues Relating to Imposition of Securities Transfer Excise Tax, reprinted in *Daily Tax Rep.* (BNA) No. 89 J-1 (May 11, 1987).

⁸ See Davis & White, *Stock Market Volatility*, Board of Governors of the Federal Reserve System Staff Study No. 153 6-7 (Aug. 1987); Edwards, *Does Futures Trading Increase Stock Market Volatility?*, 44 *Fin. Analysts J.*, Jan.-Feb. 1988, at 63, 67.

⁹ See *infra* notes 69-71 and accompanying text.

¹⁰ See I.R.C. § 851(b)(3). Section 851(b)(3) provides:

(b) Limitations. — A corporation shall not be considered a regulated investment company for any taxable year unless — . . .

(3) less than 30 percent of its gross income is derived from the sale or other disposition of stock or securities held for less than 3 months

¹¹ See I.R.C. § 852(b)(1). Section 852(b)(1) states that the normal corporate tax will be applied to "investment company taxable income." Section 852(b)(2) defines the term "investment company taxable income" to mean generally undistributed income of the mutual fund.

This article proposes that the use of holding period requirements in the Code to curb speculation and thereby decrease stock market volatility is inappropriate for two reasons. First, at this time, there is no conclusive evidence that the type of short-term trading which holding period requirements seek to discourage contributes to stock market volatility. Second, even if short-term trading does increase stock market volatility, holding period requirements are not an appropriate response, because they distort the market. This distortion decreases societal welfare by causing stock prices to vary from the stocks' fundamental values which would be established in a rationally efficient market without such requirements.¹² In a rationally efficient stock market, prices of stocks are determined in a way which equates the marginal rates of return, adjusted for risk, for all producers and savers. Thus, in a rationally efficient market, prices of stock provide the mechanism by which scarce resources are allocated among productive assets in order to maximize societal welfare. By causing stock prices to vary from their fundamental value, holding periods result in misallocations of resources and a reduction in societal welfare.

Holding period requirements cause stock prices to vary from their fundamental value because they artificially decrease the supply of securities by encouraging investors to hold securities when real economic factors might dictate that the investors sell. This decrease in supply contributes to the inflation of stock prices above their fundamental values. After the holding period expires, investors may then sell their stocks and increase the supply of securities, thereby contributing to a decrease in prices.

Although investors acting independently of one another in purchasing and selling securities might not have a major impact on stock market prices, theories and studies about investor behavior indicate that investors do not act independently. Instead, the "herd" instinct plays a major role in investor behavior. Thus, investors tend to be simultaneously attracted to securities in a rising market. Their combined purchases of securities, in conjunction with a holding period requirement, can have the effect of inflating prices. If public sentiment turns negative, stock prices may then decrease rapidly as investors sell. Indeed, prices may drop below

¹² The term "fundamental value" is defined more fully in the text accompanying note 77, *infra*.

their fundamental values because studies indicate that investors overreact to negative news.

Because holding period requirements decrease societal welfare by distorting the market, this article concludes that the holding period requirement of the short-short rule should be repealed, and that the preference for long-term capital gains should not be reenacted, if the primary purpose for its reenactment is to deter short-term trading.

This article is organized in the following manner. Part II briefly examines the legislative history of the use of holding period requirements in order to establish that one of the primary purposes of the holding period requirement for the short-short rule and long-term capital gains preference was to discourage speculation. Part III then surveys studies which have attempted to analyze the impact of speculation on stock market volatility. Part III decides that the studies are inconclusive as to whether speculation increases or decreases stock market volatility.

Part IV argues, however, that the appropriate inquiry regarding speculation is not whether speculation increases volatility, but whether it decreases societal welfare. Even if short-term trading increases the volatility of stock prices, that volatility would not be harmful unless it caused stock prices to vary from their fundamental values as determined in a rationally efficient stock market. Under the efficient market theory, rational investors assure that prices do not stray from their fundamental values. Thus, if the stock market behaves like a rationally efficient market, holding periods are not needed. Indeed, Part IV, asserts, holding period requirements cause prices to vary from their fundamental values in a rationally efficient market by artificially restricting the supply of securities.

Part V explains that it is far from clear that the stock market behaves like a rationally efficient market. However, Part V further states that holding period requirements also cause stock prices to vary from their fundamental values in an irrational stock market because they decrease the supply of stocks and, in certain instances, they may reinforce irrational investor behavior. Part VI makes policy recommendations based on the foregoing analysis.

II. THE HISTORIC RATIONALE FOR HOLDING PERIODS

At the outset it should be noted that several definitions of the

term "speculation" exist.¹³ One definition of speculation is payment for a security in excess of a price merited by its previous earnings in the hope that the price will continue to rise.¹⁴ Another describes the term simply as the purchase of an item with a view to selling it at a higher price.¹⁵ Still another modifies the latter definition by injecting a temporal aspect: speculation is the purchase of an item with a view to selling it at a higher price within a short period of time.¹⁶ This last definition of speculation has been embodied in the federal income tax policy.¹⁷

A. *The Capital Gains Deduction*

Preferential treatment for long-term capital gains was introduced as part of the Revenue Act of 1921 based on the belief that sales of capital assets had been deterred because the gain was taxed at a high marginal rate.¹⁸ Congress reasoned that lowering the rate of tax on capital gains would stimulate realization of gains and, thereby, increase revenues.¹⁹

The notion that capital assets should be held for a period of time in order to qualify for preferential tax treatment was essentially an afterthought. During discussion of the Revenue Act of 1921, Senator Walsh of Massachusetts objected to a version of the Revenue Act which would have extended preferential treatment to all capital gains. On the Senate floor he proposed an amendment which would require that capital assets be held for three years in order to

¹³ Indeed, it has been suggested that despite the many attempts to define speculation in the literature, "a satisfactory general definition is still not available and probably never will be." Hart & Kreps, *Price Destabilizing Speculation*, 94 J. Pol. Econ. 927, 928 (1986).

¹⁴ See S. Cottle, R. Murray & F. Block, *Graham and Dodds Security Analysis* 544-45 (1988).

¹⁵ Hart & Kreps, *supra* note 13, at 928.

¹⁶ See R. Pickett & M. Ketchum, *Investment Principles and Policy* 20 (1954). See also Fredland, Gray & Sunley, *The Six Month Holding Period for Capital Gains: An Empirical Analysis of Its Effect on the Timing of Gains*, 21 Nat'l Tax J. 467, 474 (1968); D. Marting, *Alternative Approaches to Capital Gains Taxation* 28, 29 (Brooking Inst. 1968).

¹⁷ See *infra* notes 20, 36-38 and accompanying text (rationales of holding period requirements for capital gains deduction and the "short-short" rule).

¹⁸ See H.R. Rep. No. 350, 67th Cong., 1st Sess. 10, 11 (1921), reprinted in 1939-1 (2) C.B. 168. See also H.R. Rep. No. 1388, 67th Cong., 4th Sess. 1, 2 (1923) (capital gains preference provided in order to encourage realization of gains and, thereby, increase revenues).

¹⁹ See H.R. Rep. No. 350, *supra* note 18. Interestingly, the debate about the revenue impact of the capital gains deduction continues today. See, e.g., Minarik, *The New Treasury Capital Gains Study: What Is In the Black Box?*, 39 Tax Notes 1465 (June 20, 1988).

qualify for the preferential treatment. He argued that without the holding period, no distinction would be made between increases in value extending over a long period of time and "that sudden and speculative increase that develops within a short period of time."²⁰ Although Senator Walsh initially requested a three-year holding period, a compromise resulted in a two year holding period.

The idea that the holding period requirement should be retained in order to discourage speculation continued to influence legislative review of the holding period requirement up to the repeal of the preferential treatment for long-term capital gain in 1986. However, the desirability of a holding period requirement constantly clashed with concerns about the efficient operation of the stock market.²¹ In 1942, Congress considered enacting the controversial

²⁰ 61 Cong. Rec. 6575-76 (1921). In explaining the rationale for his proposal, Senator Walsh stated:

There is no distinction made between increased value in tangible or intangible property extending over a long period of years and that sudden and speculative increase that develops within a short period of time. Under this amendment the stock speculator who buys early in the year stocks at a small valuation and sells them later at a much enhanced value would have to pay a tax on only 40 per cent of the gain on such sales, while gains in income from every other source of income would be taxed to the full amount.

Under the proposed amendment and bill a lawyer or any other professional man who derived as a fee from a large case or a merchant who through a substantial increase in sales derived an income of, say, \$100,000 per year is taxable on the full amount of income. The speculator who derives an income of \$100,000 a year upon the New York Stock Exchange or in any other manner would be taxable only on 40 per cent of his net income or \$40,000.

If there is any merit at all in the contentions made by those who are in favor of this amendment it seems to me in all fairness and equity to taxpayers other than those who are making money in a speculative way upon sudden increases in the value of property which they hold that there should be a limit in the time allowed for holding capital assets before the reduced rate of taxation would be applicable. I suggest a time limit of at least three years.

Id. For an excellent survey of the legislative history of the treatment of capital gains, see Wells, *Legislative History of Treatment of Capital Gains under the Federal Income Tax, 1913-1948*, 2 Nat'l Tax J. 12 (1949). See also Mayhall, *Capital Gains Taxation—The First One Hundred Years*, 41 La. L. Rev. 81, 87-92 (1980) (summarizing the historical development of the capital gains deduction).

²¹ Early critics of the holding period requirement argued that the holding period requirement adversely impacted securities markets. The Subcommittee on Tax Avoidance of the Committee on Ways and Means reported in 1933 that the two-year holding period requirement may have contributed to the rise and subsequent precipitous fall of the stock market because it caused taxpayers to accelerate recognition of their losses within the two-year period and postpone recognition of their gains until after the period. See Staff of Subcomm. on Tax Avoidance of the House Comm. on Ways and Means, 73d Cong., 2d Sess., Prelimi-

nary Report on Prevention of Tax Avoidance Relative to Methods of Preventing the Avoidance and Erosion of the Internal Revenue Laws Together with Suggestions for the Simplification and Improvement Thereof 5 (Comm. Print 1933). Moreover, persons opposed to *any* tax on capital gains argued to the Subcommittee that the imposition of the tax delayed sales of appreciated property and, therefore, promoted "the conditions which prevailed in 1929" (i.e. the stock market crash). Staff of Subcomm. on Tax Avoidance of the House Comm. on Ways and Means, 73d Cong., 2d Sess., Statement of the Acting Sec'y of the Treas. Regarding the Preliminary Report of a Subcomm. of the Comm. on Ways and Means Relative to Methods of Preventing the Avoidance and Evasion of the Internal Revenue Laws Together with Suggestions for the Simplification and Improvement Thereof 4-5 (Comm. Print 1933). Opponents of taxing capital gains also argued that because the gains had accrued over several years, it was unfair to tax the gains at progressive rates in the year in which they were recognized. See *id.* at 4.

Rather than permit capital gains to avoid tax entirely, the Subcommittee proposed that the assessed tax diminish with the period of time for which the asset was held. One-hundred percent of the gain would be taxed if the asset was held for less than one year, while only twenty percent of the gain would be taxed if the asset was held for more than five years. Although the Treasury criticized the Subcommittee's five-year graduated scale as actually increasing the incentive to delay sales of capital assets in order to minimize the tax, see Hearings on Revenue Revision, 1934 before the House Comm. on Ways and Means, 73d Cong., 2d Sess. 39-40 (1934), Congress enacted the Subcommittee's graduated scale in a modified form. The Revenue Act of 1934 provided for the taxation of capital assets in the following manner:

<u>Period Assets Held</u>	<u>Percentage of Gain Included in Ordinary Income</u>
1 year or less	100
Over 1 year but not over 2 years	80
Over 2 years but not over 5 years	60
Over 5 years but not over 10 years	40
Over 10 years	30

Revenue Act of 1934, ch. 277, 48 Stat. 680, 714 (1934).

By 1938, the Subcommittee had itself begun to wonder whether the graduated scale with its sharp decreases in tax encouraged taxpayers to accelerate the recognition of losses and postpone the recognition of gains. The Subcommittee began its analysis by asserting that the bulk of stock transactions were insensitive to capital-gains taxation because stock was generally held in order to control the corporation or to obtain income. See Proposed Revision of the Revenue Laws, 1938, Report of a Subcomm. on Taxation of the House Comm. on Ways and Means, 75th Cong., 3d Sess. 32 (1938). The Subcommittee further asserted that a large percentage of the trading volume of stock not held for that purpose was attributable to short-term traders, such as exchange members, who are similarly insensitive to the capital gains tax. See *id.* The Report noted that twenty-four percent of all shares bought and sold on the New York Stock Exchange during a twenty-five-week period was for the accounts of members of that Exchange. See *id.* Despite this effort to diminish the impact of the taxation of capital gains on the securities markets, the Subcommittee Report recognized, however, that "[w]hatever the exact influence of the capital-gains-tax factor may be in the capital markets, the effect is accentuated, under the existing law, by the wide spread in the step-down percentages from statutory period to statutory period according to the number of years that assets are held." *Id.* The Report concluded that the "larger the tax advantage of

Boland Bill,²² which proposed that the holding period requirement be eliminated. The Treasury opposed the bill on grounds of fairness to other taxpayers, arguing that the bill would place a "premium on speculation as a way of securing a living."²³ Proponents of the bill, on the other hand, asserted that elimination of the holding period would restore stability to the securities markets by removing the artificial incentive to realize short-term losses and delay long-term gains.²⁴ This artificial incentive arose from the fact that long-term gains were taxed at a preferential rate while short-term losses were deductible from ordinary income. Proponents also argued that speculation was not an evil to be avoided, but actually contributed to the smooth operation of the securities markets.²⁵

Although Congress did not eliminate the holding period, it reduced it to six months. The Senate Finance Committee Report stated that reducing the holding period would encourage the realization of capital gains and as a result, provide additional revenue.²⁶ Moreover, the Report stated that a holding period of six months

retaining assets until the next step-down barrier is crossed the more likely is the tax consideration to be an obstacle to the free flow of capital transactions." *Id.*

Consequently, the Subcommittee recommended that preferential treatment for taxable gains apply to the sale or exchange of assets held for over one year using a graduated scale which would reduce the income taxed by a certain percentage for each month over one year that the asset was held.

The Senate Finance Committee rejected this proposal as "excessively complicated." S. Rep. No. 1567, 75th Cong., 3d Sess. 6 (1938). The Senate Finance Committee noted, however, that adjustments were needed. The Finance Committee Report stated:

. . . [A]n excessive tax on capital gains freezes transactions and prevents the free flow of capital into productive investments. The effect of the present system of taxing capital gains is to prevent any individual with substantial capital from investing in new enterprises. This is most unfortunate, because it adversely affects the employment situation.

Id. The Committee proposed a system substantially similar to that which had been in effect from 1924 to 1932—that preferential treatment be applied to assets held for longer than eighteen months. As ultimately enacted, however, the Act retained two classes of long-term assets—assets held longer than eighteen months but not longer than 24 months and assets held longer than 24 months.

²² H.R. 6358, 77th Cong., 2d Sess., 88 Cong. Rec. 290 (1942).

²³ See Hearings on H.R. 7378 Before the House Ways and Means Comm., 77th Cong., 2d Sess. 253 (1942) (statement of Randolph E. Paul, Special Tax Advisor to the Secretary of the Treasury).

²⁴ See *id.* at 943 (statement of Elisha M. Friedman).

²⁵ See *id.* at 958 (statement of Elisha M. Friedman); Hearings on H.R. 7378 Before the Senate Comm. on Finance, 77th Cong., 2d Sess. 1187 (1942) (testimony of Emil Schram, President of the New York Stock Exchange).

²⁶ See S. Rep. No. 1631, 77th Cong., 2d Sess. 50 (1942).

would be "a sufficient deterrent to the speculator as contrasted with the legitimate investor."²⁷

The six-month holding period remained in effect until the Tax Reform Act of 1976. At that time, it was argued that one of the reasons for the preferential treatment of long-term capital gains was that it was unfair to tax income which had accrued over a long period of time under a system that applied a progressive rate of taxation.²⁸ However, it was asserted that the unfairness associated with the bunching of this income into one year was not present in the case of an asset held for only six months and, indeed, that other forms of income earned or realized within a twelve-month period were treated as ordinary income.²⁹ Consequently, Congress decided to increase the holding period to one year.

However, in 1984, Congress again reduced the holding period to six months. Congress enacted the reduction in part to mitigate the negative impact on market efficiency. The Report of the Senate Finance Committee stated that the reduction was effected in order to reduce the incentive for taxpayers to defer the sale of securities with gains and the resulting "adverse impact on capital market efficiency."³⁰

The Tax Reform Act of 1986 repealed the capital gains preference. The Report of the Senate Finance Committee explained that the reduction of individual tax rates eliminated "the need to pro-

²⁷ *Id.*

In 1950, Congress again considered reducing the holding period from six months to three months. Interestingly, the House and Senate reports noted that holding period requirements contribute to the inflation of stock prices in a rising market. H.R. Rep. No. 2319, 81st Cong., 2d Sess. 60, reprinted in 1950-2 C.B. 380, 425; S. Rep. No. 2375, 81st Cong. 55-56, 2d Sess., reprinted in 1950-2 C.B. 483, 523-24. The House Report stated:

A long holding period has a disturbing effect on prices in the markets for capital assets, which is most unfortunate. When prices rise, as has been the case in the security markets during recent months, sales that would otherwise have occurred do not take place because the owners of the assets desire to hold them until they can qualify the gain as long-term and obtain the resulting tax benefits. The consequence is that a check on the price movement which would otherwise appear is missing.

H.R. Rep. No. 2319, 81st Cong., 2d Sess. 60, reprinted in 1950-2 C.B. 380, 425.

²⁸ See Staff of Joint Comm. on Tax'n, 94th Cong., 2d Sess., General Explanation of the Tax Reform Act of 1976 at 426 (Comm. Print 1976).

²⁹ See *id.* See also Staff of Joint Comm. on Tax'n, 94th Cong., 2d Sess., Tax Revision Issues - 1976 (H.R. 10612), 8 Cap. Gains & Losses 2-3 (Comm. Print 1976).

³⁰ Staff of Senate Finance Comm., 98th Cong., 2d Sess., Deficit Reduction Act of 1984, Explanation of Provision Approved by the Comm. on Mar. 21, 1984, Vol. I at 819 (Comm. Print 1984).

vide a reduced rate for net capital gain[s]”³¹

The Report also stated:

This will result in a tremendous amount of simplification for many taxpayers since their tax will no longer depend upon the characterization of income as ordinary or capital gain. In addition, this will eliminate any requirement that capital assets be held by the taxpayer for any extended period of time (currently 6 months) in order to obtain favorable treatment.³²

B. The “Short-Short” Rule

A holding period requirement separate from the long-term capital gains preference is imposed on mutual funds pursuant to section 851(b)(3) of the Code. In order for a mutual fund to maintain its special tax status as a flow-through entity, section 851(b)(3) requires that less than thirty percent of its gross income be derived from the sale or other disposition of stock or securities held for less than three months. This requirement, frequently referred to as the “short-short” rule, first appeared in the Revenue Act of 1936.³³ When first enacted, the rule required that less than thirty percent of its gross income be derived from dispositions of stocks or securities held for less than six months.³⁴ This requirement was amended in 1942 to reduce the holding period requirement to three months.³⁵

Interestingly, the enactment of the short-short rule in the Revenue Act of 1936 occurred without discussion on the floor or in the committee reports. When the period for which the stock and securities must be held was reduced from six months to three months there was again no discussion. Consequently, it is difficult to determine the initial legislative purpose for the holding period requirement, but post hoc rationales have been offered by the Internal Revenue Service (“Service”) and by Congress.

The Service has suggested that the short-short rule was adopted

³¹ S. Rep. No. 313, 99th Cong., 2d Sess. 169 (1986).

³² *Id.*

³³ Revenue Act of 1936, ch. 690, 49 Stat. 1648, 1669 (1936) (Section 48(e), Definition of Mutual Investment Companies).

³⁴ *Id.*

³⁵ Revenue Act of 1942, ch. 619, § 170, 56 Stat. 798, 878 (Section 361, “Supplement Q—Regulated Investment Companies”).

“to ensure that regulated investment companies [i.e. mutual funds] engage primarily in safeguarding investments and securing investment returns consistent with safety of principal.”³⁶ The Service elaborated that “[c]ompanies actively trading securities for the purpose of making short-term trading profits” were intended to be denied flow-through treatment.³⁷

Later, Congress, considering in 1986 whether it should repeal the short-short rule in section 851(b)(3), offered an additional rationale in the Conference Committee report:

The conferees believe that the requirement that a RIC [regulated investment company] derive less than 30 percent of its gross income from the sale or other disposition of stock or securities held for less than three months is an appropriate requirement to ensure that a RIC is a passive entity that is appropriately granted pass-through status.³⁸

III. SPECULATION AND STOCK MARKET VOLATILITY

A. *Speculation*

While the legislative history of the capital gains preference and the short-short rule indicates that one of the principal goals of imposing a holding period requirement was to discourage speculation in the form of short-term trading, no conclusive evidence exists that short-term trading is harmful. In particular, studies are inconclusive as to whether short-term trading contributes to stock market volatility.

A large amount of the economic literature has focused on the formulation of theoretical models pertaining to whether speculators stabilize or destabilize prices.³⁹ Milton Friedman sparked this inquiry in 1953 when he suggested that speculators should help stabilize prices because they buy when prices are low, thereby helping to raise low prices, and they sell when prices are high,

³⁶ Rev. Rul. 75-376, 1975-2 C.B. 267, 268. See Rev. Rul. 75-225, 1975-1 C.B. 191.

³⁷ Rev. Rul. 75-376, 1975-2 C.B. 267, 268.

³⁸ H.R. Conf. Rep. No. 841, 99th Cong., 2d Sess., vol. II, at II-245 (1986).

³⁹ See, e.g., M. Friedman, *Essays in Positive Economics* 175 (1953); Baumol, *Speculation, Profitability, and Stability*, 39 *Rev. Econ. Statistics* 263 (1957); Danthine, *Information, Futures Prices, and Stabilizing Speculation*, 17 *J. Econ. Theory* 79 (1978); Hart & Kreps, *Price Destabilizing Speculation*, 94 *J. Pol. Econ.* 927, 927 (1986); Turnovsky, *The Determination of Spot and Future Prices with Storable Commodities*, 51 *Econometrica* 1363, 1364 (1983).

thereby helping to lower high prices. He stated that “[p]eople who argue that speculation is generally destabilizing seldom realize that this is largely equivalent to saying that speculators lose money, since speculation can be destabilizing in general only if speculators on the average sell when the currency is low in price and buy when it is high.”⁴⁰

Although Friedman’s suggestion that speculators should stabilize prices has been confirmed by several mathematical models,⁴¹ some mathematical models have also shown that rational speculators can destabilize prices.⁴² Underlying the latter studies is the notion that speculators will buy when the probability of profit is high, and that this may occur when prices are already at high level.⁴³ In those instances, the speculators’ actions can result in price destabilization as prices are pushed higher and then collapse.⁴⁴ However, most of these latter studies rely on the presence of conditions that may not be realistic—the existence of a small number of imperfectly competitive speculators or consumers having irrational expectations.⁴⁵ Thus, the studies cannot be viewed as conclusive as to whether speculation increases or decreases market volatility.⁴⁶

⁴⁰ M. Friedman, *supra* note 39, at 175.

⁴¹ See e.g., Peck, *Futures Market, Supply Response and Price Stability*, 90 *Q.J. Econ.* 407, 422 (1976); Turnovsky, *Futures Markets, Private Storage, and Price Stabilization*, 12 *J. Pub. Econ.* 301, 312 (1979); Turnovsky, *supra* note 39, at 1364; Turnovsky & Campbell, *The Stabilizing and Welfare Properties of Futures Markets: A Simulation Approach*, 26 *Int’l Econ. Rev.* 277, 297-98 (1985) (the introduction of a futures market may yield a high degree of stabilization, and, at worst, produces no destabilizing effect).

⁴² See, e.g., Baumol, *supra* note 39, at 263-64; Farrell, *Profitable Speculation*, 33 *Economics* 183, 183-93 (May 1968); Hart & Kreps, *supra* note 39, at 930; Kohn, *Competitive Speculation*, 46 *Econometrica* 1061, 1074-75 (1978); Stein, *Informational Externalities and Welfare-reducing Speculation*, 95 *J. Pol. Econ.* 1123, 1123-25 (1987).

⁴³ See Baumol, *supra* note 39, at 263-64; Farrell, *supra* note 42, at 183-93; Hart & Kreps, *supra* note 39, at 928; Kohn, *supra* note 42, at 1075.

⁴⁴ See *id.*

⁴⁵ See Hart & Kreps, *supra* note 39, at 928. See also Telser, *Theory of Speculation Relating Profitability and Stability*, 41 *Rev. Econ. Statistics* 295, 299-301 (1959) (critiquing Baumol, *supra* note 39).

⁴⁶ It should be noted, however, that if irrational speculators are somehow able to influence market prices, speculation could destabilize prices because market prices might reflect the speculators’ emotional reactions to new information or might be affected by the “herd” instinct, rather than rational analysis. See *infra* notes 133-141 and accompanying text. Moreover, it is possible that rational speculators could help destabilize prices if rational speculative bubbles occur. See *infra* notes 100-03 and accompanying text. Indeed, Professor Jeremy C. Stein has suggested that regardless of whether rational speculative bubbles occur, speculators may increase the volatility of prices simply because they bring additional infor-

B. The Impact of Stock Index Future Contracts on Stock Market Volatility

Another approach to analyzing the impact of speculation on stock market volatility has been to examine the impact of stock index futures contracts.⁴⁷ Several studies of stock market volatility have focused on the impact of stock index future contracts on market volatility because of a concern that such futures contracts may have fueled excessive speculation.⁴⁸ Indeed, it has been asserted that "opening a futures market is exactly equivalent to allowing

mation to the market place. See Stein, *supra* note 42, at 1141-42.

⁴⁷ A futures contract obligates the holder to either buy or sell an asset at a set price on a specified date. The futures contract may be bought or sold up to the time the contract expires. The value of the futures contract will depend upon the value of the asset upon which the contract is based. For example, the value of a contract which obligates the buyer to purchase gold at \$350 per ounce will increase if gold prices rise to \$400 per ounce. If on the date the futures contract expires, gold is selling at \$400 per ounce, the holder will be obligated to buy the gold at \$350 but can then sell it at the prevailing price of \$400. Rather than taking actual delivery of the asset, in reality, most contracts are settled by making cash payments equal to increases or decreases in the value of the asset underlying the futures contract. Indeed, futures contracts based on stock indices avoid entirely the requirement that delivery of the stocks be made.

A stock index futures contract is a futures contract whose value depends upon the value of the stocks which comprise the stock index upon which the futures contract is based. For example, an S&P 500 futures contract is a contract whose value is determined by reference to the S&P 500 Index. If the Index goes up, the S&P futures contract increases in value. Conversely, if the Index goes down, the futures contract decreases in value. On the expiration date of the futures contract, the parties to the contract settle the contract by taking into account the final price of the Index. The purchaser of the futures contract will receive cash from the seller if the S&P 500 Index is greater than the price designated in the futures contract, or will pay cash to the seller if the Index is below the price designated in the futures contract. See generally R. Brealey & S. Myers, *Principles of Corporate Finance* 614-18 (3d ed. 1988) (describing futures contracts).

⁴⁸ See e.g., R. Britto, *Futures Trading and the Level and Volatility of Spot Prices: A Survey* at 1 (Colum. U. Center for the Study of Future Markets Working Papers Series #CSFM-112, Oct. 1985) ("It is hardly necessary to point out that it is the presence of speculators in futures trading that provokes hostile reactions to such trading . . ."); Edwards, *supra* note 8, at 65-66 ("The loudest and most persistent criticism of futures trading in equity index products has been that such activity increases the volatility of cash stock prices."); Edwards, *Futures Trading and Cash Market Volatility: Stock Index and Interest Rate Futures*, 8 *J. Futures Mkts.* 421, 422 (1988).

The major reason that stock index futures are viewed as speculative instruments is that a futures trader can take a larger position with a commitment of less capital than in the stocks which comprise the applicable stock index. See Gould, *Stock Index Futures: The Arbitrage Cycle and Portfolio Insurance*, 44 *Fin. Analysts J.*, Jan.-Feb. 1988, at 48, 54. As a result, futures contracts facilitate short-term trading.

more speculators to participate" in the stock market.⁴⁹

Studies that have analyzed the relationship of stock index futures and stock market volatility initially seem to support Friedman's argument that speculation stabilizes prices. Commentators have noted that stock market volatility actually decreased in 1982 when trading in stock index futures commenced and continued to remain below the pre-futures contract level until the latter half of 1986.⁵⁰ However, a Staff Study by the Board of Governors of the Federal Reserve System and other studies have found that stock market volatility increased significantly in 1986 and early 1987.⁵¹ While the Staff Study could not conclusively identify the cause of the increase in volatility, the study suggested that "macroeconomic conditions" are "relatively important in explaining changes in share-price volatility"⁵² In particular, the Study noted that a direct correlation between changes in the growth of industrial production and volatility in stock prices existed.⁵³ Another study has concluded that although no clear explanation existed to explain the recent rise in stock market volatility, it seemed unlikely that futures contracts were the primary cause.⁵⁴

Speculation in stock index futures may contribute to stock market volatility in at least three ways.⁵⁵ First, arbitrage between stock

⁴⁹ Stein, *Informational Externalities and Welfare Reducing Speculation*, 95 *J. Pol. Econ.* 1123, 1125-26 (1987).

⁵⁰ See Edwards, *supra* note 8, at 63-68. Studies of the volatility of bond prices after the introduction of financial futures contracts also suggest that the introduction of financial futures did not increase bond market volatility. See Edwards, *Futures Trading and Cash Market Volatility: Stock Index and Interest Rate Futures*, *supra* note 48, at 433. See also Simpson & Ireland, *The Impact of Financial Futures on the Cash Market for Treasury Bills*, 20 *J. Fin. Quantitative Analysis* 371, 371-79 (1985); Moriarity & Tosini, *Futures Trading and the Price Volatility of GNMA Certificates—Further Evidence*, 5 *J. Futures Mkts.* 633, 633-42 (1985).

⁵¹ See C. Davis & A. White, *supra* note 8, at 6-7; Biriny & Hanson, *The New Worries about Stock-Price Volatility*, 2 *Morgan Econ. Q.*, Dec. 1986, at 18; Edwards, *supra* note 8, at 67; *The Role of Index-Related Trading in the Market Decline on September 11 and 12, 1986*, A Report by the Division of Market Regulation U.S. Securities and Exchange Commission (March 1987).

⁵² C. Davis & A. White, *supra* note 8, at 13.

⁵³ See *id.*; Chen, Roll & Ross, *Economic Forces and the Stock Market*, 59 *J. Bus.* 383, 386, 395 (1986).

⁵⁴ See Edwards, *supra* note 8, at 63-68.

⁵⁵ See generally *The Role of Index-Related Trading in the Market Decline on September 11 and 12, 1986*, *supra* note 51, at 19-25 (description of the potential impact of index arbitrage and manipulation on volatility).

index futures and the stocks that comprise the index upon which the futures contract is based may strain the ability of the stock market to absorb smoothly the large sales and purchases of stocks involved. Second, stock index futures may somehow directly move stock prices. Third, stock index futures may make it easier to manipulate stock prices.

Arbitrage between stock index futures and stocks involves the simultaneous purchase and sale of stock index futures and the stocks which comprise the stock index in order to profit from price discrepancies between the two instruments.⁵⁶ In a perfect world, any difference between the price of stock index futures and the underlying stocks would merely reflect differences in transaction costs.⁵⁷ However, because the markets possess some imperfections, price differences develop. Index arbitrageurs profit from the price differences by selling and buying stock index futures and large blocks of stock which comprise the stock index.⁵⁸

Index arbitrage can sometimes place significant strains on stock prices when the stock market is not sufficiently liquid, such as when there are insufficient buyers or sellers to implement smoothly the movement of large blocks of stock.⁵⁹ However, it has

⁵⁶ See O'Dea, *Arbitrage*, 2 *Intermarket*, May 1985, at 37, 37. See *id.* for a more detailed explanation of arbitrage techniques.

⁵⁷ See, e.g., Merrick, *Volume Determination in Stock and Stock Index Futures Markets: An Analysis of Arbitrage and Volatility Effects*, 7 *J. Futures Mkts.* 483, 483 (1987) (noting that price differences reflect inefficient markets).

⁵⁸ For example, suppose that stock index futures for the S&P 500 are trading at 300 while the actual stocks which comprise the S&P 500 are trading at 295. An arbitrageur could make a profit by selling an S&P stock index future at 300 and purchase the stocks of the index at 295. The arbitrageur is guaranteed a profit of five regardless of what happens in the stock market because, at the time the futures contract expires, its price and the price of the S&P 500 must by definition be equal. Thus, if the futures contract expired when the S&P 500 was 310, the arbitrageur, as the seller of the contract, would be obligated to pay the buyer of the contract 10 (the difference between the amount the buyer paid for the contract, 300, and the expiration price, 310). However, the arbitrageur would have an offsetting gain of 15 because he or she could sell the stocks of the Index for 310 (sales price of 310 minus cost of 295 equals 15). Accordingly, the arbitrageur's net profit would be 5.

⁵⁹ See Grossman, *An Analysis of the Implications for Stock and Futures Price Volatility of Program Trading and Dynamic Hedging Strategies*, 61 *J. Bus.* 275, 290-92 (1988). See also Stoll & Whaley, *Program Trading and Expiration—Day Effects*, 43 *Fin. Analyst J.*, Mar.-Apr. 1987, at 16, 23-24 (the failure of market to provide sufficient liquidity can cause stock price volatility); Rendleman, *Commentary on the Effects of Stock Index Futures Trading on the Market for Underlying Stocks*, 5 *Rev. Research in Futures Mkts.* 174, 180-82 (1986) (various trading techniques which involve futures contracts may contribute to stock market volatility).

been found in contexts not involving arbitrage that trading large blocks of stock have significant impact on the prices of the traded stocks because of liquidity strains.⁶⁰ Thus, absent the failure in market liquidity (which may affect prices in a non-arbitrage context as well), it is not clear that stock index arbitrage would contribute to stock market volatility.

Another way stock index futures contracts might contribute to stock market volatility is if changes in the prices of futures contracts directly caused changes in the prices of stocks. Studies show that changes in stock index futures prices are normally followed by similar changes in stock prices.⁶¹ However, no causal connection has been conclusively proven.⁶² It may be that because the futures

⁶⁰ See, e.g., Holthausen & Leftwich, *The Effect of Large Block Transactions on Security Prices*, 19 *J. Fin. Econ.* 237, 237-38, 264-65 (1987); Kraus & Stoll, *Price Impacts of Block Trading on the New York Stock Exchange*, 27 *J. Fin.* 569, 569-88 (1972); Easley & O'Hara, *Price, Trade Size, and Information in Securities Markets*, 19 *J. Fin. Econ.* 69, 69-71 (1987). See also LaHarris & Gurel, *Price and Volume Effects Associated with Changes in the S&P 500 List: New Evidence for the Existence of Price Pressures*, 41 *J. Fin.* 815, 828-29 (1986) (increase in the volume of trading in stock results in increases of price volatility of the stock); Schleifer, *Do Demand Curves For Stocks Slope Down?*, 41 *J. Fin.* 579, 588-89 (1986) (stocks have a downward sloping demand curve which results in price changes when large blocks are exchanged). Similarly, several authors have noted a statistically significant relationship between the total volume of trading and stock market volatility. See, e.g., Smirlock & Starks, *A Further Examination of Stock Price Changes and Transaction Volume*, 8 *J. Fin. Research* 217, 218-25 (1985); Kraus & Stoll, *supra*, at 587-88.

⁶¹ Herbst, McCormack, & West, *Investigation of a Lead-Lag Relationship Between Spot Stock Indices and Their Futures Contracts*, 7 *J. Futures Mkts.* 373, 379-80 (1987) (changes in stock index futures prices on average lead changes in stock prices by one minute); Kawaller, Koch & Koch, *The Temporal Price Relationship Between S&P 500 Futures and the S&P 500 Index*, 42 *J. Fin.* 1309, 1327 (1987) (changes in stock index futures prices lead changes in stock prices by twenty to forty-five minutes); J. Merrick, *Price Discovery in the Stock Market 9* (Fed. Reserve Bank of Philadelphia Working Paper No. 87-4) (March 1987) (beginning in 1985, futures prices started to lead stock prices).

⁶² For an interesting exchange on the failure of studies to establish causation between changes in stock-index futures prices and stock prices, see Finnerty & Park, *Stock Index Futures: Does the Tail Wag the Dog?*, 43 *Fin. Analysts J.*, Mar.-Apr. 1987, at 57; Gordon, Moriarity & Tosini, *Stock Index Futures: Does the Dog Wag the Tail?*, 43 *Fin. Analysts J.*, Nov.-Dec. 1987, at 72; Finnerty & Park, *Does the Tail Wag the Dog: A Response to Comments*, 43 *Fin. Analysts J.*, Nov.-Dec. 1987, at 76. But see Bhattacharya, Ramjee & Balasubramani, *The Causal Relationship Between Futures Price Volatility and the Cash Price Volatility of GNMA Securities*, 6 *J. Futures Mkts.* 29, 32-33 (1986) (finding some evidence of weak causation between GNMA futures prices and GNMA bond prices).

It has been hypothesized that stock index futures contracts did actually contribute to the fall of stock prices in October 1987 because of their role in portfolio insurance. See, e.g., Pierog, *Crash Prompts New Look to Portfolio Insurance*, 17 *Futures*, Feb. 1988, at 44. See also Grossman, *An Analysis of the Implications for Stock and Futures Price Volatility of*

market has a larger volume of transactions and lower transaction costs, the futures market is simply a faster calculator of what stock prices will be in the near future.⁶³ On the other hand, because prices at which speculators are willing to buy or sell stock index futures may provide additional information to the stock market, it is possible that speculation in stock index futures causes prices to change in the stock market because it communicates new information to the stock market.⁶⁴

Program Trading and Dynamics Hedging Strategies, 61 J. Bus. 275, 278 (1988) (volatility of stock market may increase by virtue of portfolio insurance because the market cannot ascertain the amount of portfolio insurance programs in place). Portfolio insurance involves selling stock index futures after the market has begun to fall. See, e.g., Tosini, Stock Index Futures and Stock Market Activity in October 1987, 44 Fin. Analysts J., Jan.-Feb. 1988, at 28, 31; Report of the Presidential Task Force On Market Mechanism, *supra* note 2, at 7. If the market continues to fall, the investor's position in the stock index futures will increase in value, offsetting any further decrease in the value of the stock portfolio.

The problem with portfolio insurance, however, is that in a falling market stock index futures can usually be sold only at a discount to the value of the basket of stocks which comprise the index upon which the futures are based. Indeed, many pension funds have abandoned the use of portfolio insurance techniques after the crash because the fact that they were required to sell the index futures contracts at prices below the level of the corresponding index made the method prohibitively expensive. See Pierog, *supra*, at 44. See also McMurray, Pit Fall, Financial Futures Sink Into a Volume Slump, Hurting Chicago Marts, Wall St. J., Jul. 1, 1988, at 1, col. 6 (institutional investors had withdrawn up to \$20 billion from the futures market since October 19 and an additional \$70 billion is no longer covered by portfolio insurance). If the discount is large enough, arbitrageurs can lock-in an immediate profit by purchasing the futures contracts at a discount and at the same time selling a basket of stocks that are identical to the stocks which comprise the index. Easy Riders, The Economist, Nov. 8, 1986, at 70, 71-72. This process can place downward pressure on stock prices if several arbitrageurs are selling stocks into an already falling market. Indeed, the SEC Staff Report identified the activity of arbitrageurs as a factor contributing to the rapid decline of stock prices. The October 1987 Market Break, SEC Staff Study at 3-11 to 3-12, Fed. Sec. L. Rep. (CCH) No. 1271, Feb. 9, 1988. Moreover, if portfolio insurers are seeking to sell a large volume of index futures, this can further depress the price of stock index futures triggering another wave of arbitrage activity, which can further decrease stock prices and perhaps trigger another wave of portfolio insurance selling. The portfolio insurance selling could cause another significant discount to develop, starting the cycle again. This so-called "cascade scenario" was also identified by the SEC as contributing to the rapid price decline in October. See *id.* at 3-11 n.39.

⁶³ See Garcia, Leuthold & Zapata, Lead-Lag Relationship Between Trading Volume and Price Variability: New Evidence, 6 J. Futures Mkts. 1, 3 (1986) (because the futures markets have more traders, prices of futures contracts reflect more information); Herbst, McCormack & West, *supra* note 61, at 375 (because it is easier to buy a stock index future than the stocks which comprise the index, it might be expected *a priori* that futures prices will forecast stock prices); Merrick, *supra* note 61, at 9 (ability of futures market to predict stock price changes arose at a time that volume of trading in futures market exceeded volume of trading in stock market).

⁶⁴ See Stein, *supra* note 42, at 1141-42 (in certain circumstances, information contained in

Lastly, it has been asserted that stock index futures contracts might also contribute to volatility because they provide an opportunity for market manipulation.⁶⁵ It has long been recognized that futures contracts can be used to manipulate market prices of the item on which the contract is based.⁶⁶ However, manipulation would exist regardless of whether speculation occurred. In the case of market manipulation, the volatility does not necessarily result from speculation, but rather from a failure of the regulatory system to prevent manipulation.⁶⁷

In summary, no clear evidence exists that speculation contributes to stock market volatility. Studies which attempt to model the relationship between speculation and market volatility are inconclusive. Studies of the impact of stock index futures contracts, which are viewed as playing a major role in speculation, show that after the introduction of such contracts, stock market volatility actually decreased through the first half of 1986. Beginning in the latter half of 1986, market volatility increased. It is not clear whether speculation with stock futures contracts contributed to this increased volatility.

C. Repeal of the Capital Gains Preference and Market Volatility

The findings that stock market volatility increased for the latter half of 1986 and for 1987 suggest that one potential cause for the

futures prices can destabilize prices). For articles which have generally analyzed the information content of prices, see, e.g., Grossman & Stiglitz, *On the Impossibility of Informationally Efficient Markets*, 70 *Am. Econ. Rev.* 393 (1980); Helwig, *On the Aggregation of Information in Competitive Markets*, 22 *J. Econ. Theory* 477 (1980); Grossman, *The Existence of Futures Markets, Noisy Rational Expectations and Informational Externalities*, 44 *Rev. Econ. Stud.* 431 (1977).

⁶⁵ See Wallace, *Program Trading Gets More Brutal*, *N.Y. Times*, May 1, 1988, § 3 (Business), at 3, 23 (some investors charge that institutions have used stock index futures to drive prices down).

⁶⁶ See, e.g., Greenstone, *The Coffee Cartel: Manipulation in the Public Interest*, *J. Futures Mkts.* 3, 3-16 (1981) (manipulation of coffee market); Helmuth, *A Report on the Systematic Downward Bias in Live Cattle Prices*, 1 *J. Futures Mkts.* 347, 347-58 (1981) (manipulation of cattle market).

For an excellent survey of the literature pertaining to the use of futures contracts to manipulate markets, see R. Britto, *supra* note 48.

⁶⁷ For an interesting article which discusses the regulation of manipulation by use of commodities contracts, see Perdue, *Manipulation of Futures Markets: Redefining the Offense*, 56 *Fordham L. Rev.* 345 (1987).

increase in volatility has been the repeal of the preference for long-term capital gains and its concomitant holding period requirement. The preference for long-term capital gains was repealed in the Tax Reform Act of 1986 and applied, in general, to stock purchased on or after July 1, 1986.⁶⁸ After the repeal of the preference, there was no incentive to hold stock for six months. It is possible, therefore, that the increase in stock market volatility is related to the repeal. There are, however, no statistical studies which have looked for a correlation between the repeal of the capital gains deduction and market volatility. Moreover, such studies would have to be scrutinized because the other massive changes implemented by the Tax Reform Act of 1986 could by themselves contribute substantially to volatility.⁶⁹ The rational expectations theory suggests that after a policy is changed, it may initially be difficult for individuals to forecast economic variables, and, as a result, they may make crude guesses.⁷⁰ This could result in a chaotic period immediately following a policy change which would eventually dissipate. It is possible, therefore, that the policy shifts encompassed in the Tax Reform Act of 1986 have contributed to market volatility, if at all, for the short term, not the long term. Moreover, other macroeconomic factors may have also played a major role in the recent increase in stock market volatility.⁷¹

⁶⁸ See Tax Reform Act of 1986, Pub. L. No. 99-514, § 301(c), 1986 U.S. Code Cong. & Admin. News (100 Stat.) 2216, 2218.

⁶⁹ For a laundry list of the major changes to the Code made by the Tax Reform Act of 1986, see J. Eustice, J. Kuntz, C. Lewis & T. Deering, *The Tax Reform Act of 1986, Analysis and Commentary* 1-7 to 1-8 (1987). The authors clearly viewed the scope of the changes as immense:

The Internal Revenue Code (IRC) of 1954 was easily the largest, most comprehensive, and most significant piece of technical tax legislation ever enacted by Congress. More than three decades later, however, we are faced with yet another gargantuan legislative product, the Tax Reform Act of 1986, which overshadows the 1954 legislation in its scope, significance, and complexity, and clearly outstrips other major code revisions . . . in the intervening years

Id. at 1-1 to 1-2.

⁷⁰ See Shiller, *Rational Expectations and the Dynamic Structure of Macroeconomic Models*, 4 *J. Monetary Econ.* 1, 3-4 (1978).

⁷¹ See Chen, Roll & Ross, *supra* note 53, at 386, 395 (macroeconomic conditions, including the growth rate in industrial production and unexpected inflation, are important in explaining changes in share-price volatility); Davis & White, *supra* note 8, at 13 (direct correlation exists between changes in growth of industrial production and volatility in stock prices).

IV. RATIONAL EFFICIENT MARKETS, HOLDING PERIOD REQUIREMENTS, AND SOCIETAL WELFARE

Even if one could decisively determine that speculation increases market volatility, that determination is not dispositive of the issue whether speculation should be curbed. Instead, the dispositive issue is whether speculation reduces or enhances societal welfare.⁷² If speculation reduces societal welfare, society should appropriately seek to curb speculation. However, holding period requirements are not an appropriate method to discourage speculation because they also reduce societal welfare.

A. *Speculation and Societal Welfare*

The important question whether speculation decreases societal welfare has not been adequately answered. As two prominent commentators have recently stated, "Welfare considerations [of speculation] are difficult and they may bear no particular relationship to the stability or instability of prices."⁷³ Although models have been developed which show that speculation can maximize societal welfare regardless of whether the speculation has stabilized or destabilized the price structure of the market,⁷⁴ the models include assumptions which may not reflect the real world, and, consequently cannot be viewed as conclusive.⁷⁵ In particular, those models assume that investors are risk neutral, rather than risk averse.⁷⁶

Another way to analyze the problem is to ask, assuming speculation contributes to the volatility of stock prices, does that volatility represent the variance of the stock prices from their "fundamental" values? For purposes of this article, the fundamental value of

⁷² See Hart & Kreps, *supra* note 13, at 930. The authors stated:

It should . . . be noted that whether or not speculation stabilizes prices is in some sense the wrong question. One really ought to be interested in the welfare implications of speculation. One may feel intuitively that price stabilization is "good," but, if so, one's intuition is faulty

Id.

⁷³ *Id.* at 935.

⁷⁴ See, e.g., *id.* at 947; Samuelson, *Stochastic Speculation Price*, 68 *Proc. Nat'l Acad. Sci.*, Feb. 1971, at 335, 335-37; Scheinkman & Schectman, *A Simple Competitive Model with Production and Storage*, 50 *Rev. Econ. Stud.* 427, 427-41 (1983).

⁷⁵ See Hart & Kreps, *supra* note 13, at 947. See also Stein, *Informational Externalities and Welfare-Reducing Speculation*, 95 *J. Pol. Econ.* 1123, 1141-42 (1987) (under certain circumstances, speculation decreases societal welfare).

⁷⁶ See *id.*

a security is the price which would be established in a rationally efficient market. In such a market, prices are determined in a manner which equates the marginal rates of return (adjusted for risk) of all producers and savers.⁷⁷ Thus, scarce savings are optimally allocated to productive investments in a way which helps maximize societal welfare.⁷⁸ If speculation somehow causes stock prices to vary from their fundamental values, then societal welfare is diminished because society is misallocating its resources.

The efficient market theory states that a rationally efficient market exists where there are a large number of buyers and sellers acting through a market mechanism, such as the New York Stock Exchange.⁷⁹ There are two critical elements of the efficient market theory. One is that the stock market assimilates all information quickly so the market price of securities reflects all publicly available information.⁸⁰ The second aspect is that the market rationally interprets this information with the result that the market price represents an accurate reflection of the fundamental value of the security.⁸¹

The rational element of the efficient market theory is based on the notion that investors and stock analysts scrutinize prices in an

⁷⁷ See T. Copeland & J. Weston, *Financial Theory and Corporate Policy*, 285-86 (2d ed. 1983); W. Baumol, *The Stock Market and Economic Efficiency* at viii (1965); Fischel, *Efficient Capital Market Theory, the Market for Corporate Control, and the Regulation of Cash Tender Offers*, 57 *Tex. L. Rev.* 1, 4-5 (1978).

⁷⁸ See Copeland & Weston, *supra* note 77, at 286.

⁷⁹ See R. Brealey & S. Myers, *supra* note 47, at 281-82; T. Copeland & J. Weston, *supra* note 77, at 286-87; J. Lorie, P. Dodd & M. Kimpton, *Stock Market Theories and Evidence* 55-56 (2d. ed. 1985); Fischel, *supra* note 77, at 3-4. For a discussion referring to recent studies suggesting that the stock market may not be very efficient and discussing the implications for investment strategy, see Keane, *The Efficient Market Hypothesis on Trial*, 42 *Fin. Analysts J.*, Mar.-Apr. 1986, at 58. Several studies which confirm or reject the efficient market theory are summarized in V. Brudney & M. Chirelstein, *Corporate Finance Cases and Materials*, 123-30 (3d ed. 1987); J. Lorie, P. Dodd & M. Kimpton, *supra*, at 56-77; Gordon & Kornhauser, *Efficient Markets, Costly Information and Securities Research*, 60 *N.Y.U. L. Rev.* 761, 834-46 (1985); Summers, *Does the Stock Market Rationally Reflect Fundamental Values?*, 41 *J. Fin.* 591 (1986); Wang, *Some Arguments that the Stock Market is not Efficient*, 19 *U.Cal. Davis L. Rev.* 341, 349-62 (1986).

⁸⁰ See R. Brealey & S. Myers, *supra* note 47, at 281-82. See also Tobin, *On the Efficiency of the Financial System*, 153 *Lloyds Bank Rev.*, July 1984, at 1, 5 (distinguishing the efficiency of the market in assimilating public information from the issue whether the market price for a security reflects its fundamental value); Wang, *supra* note 79, at 344.

⁸¹ See Gordon & Kornhauser, *supra* note 79, at 828-29; Shiller, *Do Stock Prices Move Too Much to be Justified by Subsequent Changes in Dividends?*, 71 *Am. Econ. Rev.* 421, 424 (1981).

effort to find underpriced or overpriced securities.⁸² In such a competitive environment, investors would quickly identify a stock price which varied from its fundamental value and, as a result, the price discrepancy would quickly disappear.⁸³ If the price of a stock were below its fundamental value, investors would quickly see the profit opportunity, purchase the stock, and as a result of this increased demand, drive the stock price up to its fundamental value. If, on the other hand, a stock's price were above its fundamental value, investors would sell or engage in short sales⁸⁴ of those stocks, and drive prices down to the stock's fundamental value.

B. Benefits of a Rationally Efficient Market

If the efficient market theory is correct, then there is little reason to worry about the impact of speculation on stock market volatility.⁸⁵ Market prices would always reflect the fundamental value of securities.⁸⁶ Movements in market prices would simply represent the availability to the market of new information which the market had assimilated and reflected in a revised price.⁸⁷

The notion that stock prices reflect the fundamental values of stocks in a rationally efficient market is important because stock prices provide the mechanism for allocating capital among competing uses. Moreover, stock prices help in planning for capital formation. Lord Keynes recognized this phenomenon over fifty years ago when he stated:

[T]he daily revaluations of the Stock Exchange, though they are

⁸² See Fischel, *supra* note 77, at 3-4.

⁸³ See *id.* Compare Shiller, *Fashions, Fads, and Bubbles in Financial Markets in Knights, Raiders and Targets* 56, 59 (J. Coffee, L. Lowenstein & S. Rose-Ackerman, eds. 1988) (profit opportunity from mispricing may not be great enough to encourage investor response).

⁸⁴ A short sale occurs when a person (the "short seller") borrows a security from its current owner and then immediately sells the security at the current price in the open market. Later when the short seller is obligated to return the security to its owner, the short seller purchases the security in the open market at the current price and returns it to the owner. If the price of the security has fallen, the short seller makes a profit. See T. Copeland & J. Weston, *supra* note 77, at 115.

⁸⁵ Assuming, of course, that no market manipulation is occurring.

⁸⁶ See Shiller, *supra* note 81, at 424-32.

⁸⁷ T. Copeland & J. Weston, *supra* note 77, at 286; F. Edwards, *Financial Futures and Cash Market Volatility* 5 (Colum. U. Center for the Study of Futures Markets Working Paper Series CFSM-#159) (June 1987); Edwards, *Futures Trading and Cash Market Volatility: Stock Index and Interest Rate Futures*, *supra* note 48, at 422-23.

primarily made to facilitate transfers of old investments between one individual and another, inevitably exert a decisive influence on the rate of current investment. For there is no sense in building up a new enterprise at a cost greater than that at which a similar existing enterprise can be purchased; whilst there is an inducement to spend on a new project what may seem an extravagant sum, if it can be floated off on the Stock Exchange at an immediate profit.⁸⁸

This recognition was incorporated by James Tobin into "Q" theory which posits that the rate of investment for firms is determined "by the condition that the marginal cost for the firm of adding to its capital stock is equal to the price at which it can sell a weighted average package of equity and debt claims on that capital."⁸⁹ In other words, firms invest in themselves as long as each dollar spent purchasing assets raises the market value of the firm by at least one dollar. For statistical research purposes "Q" has usually been calculated as the ratio of the stock plus bond-market valuations of firms to the estimated reproduction costs of their capital⁹⁰ and has been found to be statistically significant in predicting the rate of investment.⁹¹ Thus, in a rationally efficient market, stock prices aid the planning process by providing accurate and current valuations.

C. Impact of Holding Period Requirements on a Rationally Efficient Market

If the stock market actually behaves as predicted by the efficient market theory, holding period requirements distort the market by inducing persons to hold a security when real economic factors might dictate that they sell.⁹² As a result, stock prices could di-

⁸⁸ J. Keynes, *The General Theory of Employment Interest and Money* 151 (1936).

⁸⁹ Fischer & Merton, *Macroeconomics and Finance: The Role of the Stock Market*, in 21 *Carnegie-Rochester Conference Series on Public Policy* 57, 83 (1984). See Tobin & Brainard, *Asset Prices and the Cost of Capital in Economic Progress, Private Value, and Public Policy* 235 (B. Balassa & R. Nelson, eds. 1977).

⁹⁰ See Fischer & Merton, *supra* note 89, at 83 (citing Von Furstenberg, *Corporate Investment: Does Market Valuation Matter in the Aggregate?*, in 1977 *Brookings Papers on Econ. Activity* 347); Summers, *Taxation and Corporate Investment: A Q-Theory Approach*, in 1981 *Brookings Papers on Econ. Activity* 67.

⁹¹ See Fischer & Merton, *supra* note 89, at 83-84. Fischer and Merton state, however, that although the Q ratio is usually statistically significant in predicting the rate of investment, "the empirical success of the Q theory is generally regarded as mixed." *Id.*

⁹² See S. Kaplan, *The Holding Period Distinction of the Capital Gains Tax* (Nat'l Bureau

verge from the values which would be established in a nondistorted market since the supply of stocks would be diminished. A restriction in supply, all other factors remaining the same, would cause an increase in price.⁹³

Studies have shown that the incentive of the long-term capital gains preference to delay the sale of stocks with unrealized appreciation until the holding period requirement is satisfied has a statistically significant impact on the time at which investors sell stock. In 1968, Fredland, Gray, and Sunley found that the amount of short-term gains realized from the sale of stock was relatively high in the first month of the holding period, but then steadily declined until the sixth month when it increased slightly.⁹⁴ A drastic increase in the realization of gains then occurred in the seventh month when gain from the sale of the stock was eligible for preferential treatment as a long-term capital gain.⁹⁵ These findings were subsequently confirmed by Professor Kaplan in 1981.⁹⁶

Although no studies have similarly documented the impact of the holding period requirement of the short-short rule on the investment behavior of mutual funds, common sense indicates that the funds' investment behavior would be similarly influenced. Since fund investment managers would not want to lose flow-through status for income tax purposes, it seems likely that the fund managers would delay the sale of securities until after the three-month holding period.⁹⁷

of Econ. Research, Working Paper No. 762) (Sept. 1, 1981).

⁹³ Stocks have been found to have a downward sloping demand curve and therefore, stock prices respond to changes in supply. See Shleifer, *supra* note 60, at 588-89.

Indeed, one could further hypothesize that after the holding period requirements were satisfied, the prices of risky stocks might then rapidly drop. This could happen since rational investors would be most likely to sell stocks which they view as risky immediately after the holding period is satisfied in order to lock in the gain with respect to those stocks. See Constantinides, *Optimal Stock Trading with Personal Taxes: Implications for Prices and the Abnormal January Returns*, 13 *J. Fin. Econ.* 65, 73 (1984). The sudden increase in supply of those stocks, all other factors remaining the same, would cause prices to drop.

⁹⁴ See Fredland, Gray & Sunley, *supra* note 16, at 470.

⁹⁵ See *id.* Constantinides has hypothesized that taxpayers may be particularly eager to sell volatile stocks immediately after the holding period requirement is satisfied in order to lock in the gain. See Constantinides, *supra* note 93, at 73.

⁹⁶ See S. Kaplan, *supra* note 92, at 4.

⁹⁷ The loss of flow-through status would have a significantly harmful impact on stockholders of the mutual fund. Consider a mutual fund that earns \$100 of income which it distributes to its stockholders. If the stockholders are in the 28-percent tax bracket, they would pay a tax of \$28 and have \$72 left as disposable income. Contrast that situation with

It could be argued that the distortive impact of holding period requirements is minimal in a rationally efficient market because at any given time, although some investors would be holding securities to satisfy the requirement, the majority of investors would have satisfied the requirement.⁹⁸ Thus, the majority of investors would not be restrained in responding to market forces. However, it is possible that a significant percentage of investors could be subject to a holding requirement at the same time in a rationally efficient market. If this occurred, holding period requirements would have a major distortive impact.

A significant percentage of investors could be simultaneously restrained by holding period requirements if a rational speculative bubble occurred. Several commentators have asserted that price deviations from fundamental values can arise from rational behavior which forms a rational speculative bubble.⁹⁹ A rational speculative bubble may exist when the actual market price of a security depends upon future changes in the price. That is, such a bubble may occur when investors measure their returns, not just from dividends, but from changes in the price of the stock as well. In that situation, rational expectations of price increases by many investors may cause prices to diverge from their fundamental values by

what happens if the fund lost its flow-through status. The fund would probably pay tax at the highest corporate bracket, 34 percent, and thus would pay taxes of approximately \$34. That could leave \$66 to be distributed to stockholders. If the stockholders in turn pay taxes at the rate of 28 percent, their after-tax income would be only \$47.52.

⁹⁸ See generally, Somers, *Reconsideration of the Capital Gains Tax*, 13 Nat'l Tax J. 289, 292 (1960) ("Since short-term gains are taxable as ordinary income while long-term gains are subject to lower rates if properly handled, the over-all impact [of the capital gains preference] on the supply curve will depend partly on the (weighted) number of short-term and long-term profit-takers as well as loss-takers.")

⁹⁹ See, e.g., Azariadis, *Self-fulfilling Prophecies*, 25 J. Econ. Theory 380, 380-81, 395 (1981); Blanchard & Watson, *Bubbles, Rational Expectations, and Financial Markets in Crises in the Economic and Financial Structure* 295, 295-99 (P. Wachtel ed. 1981); Flood & Garber, *Bubbles, Runs and Gold Monetization, in Crises in the Economic and Financial Structure* 275, 275-76 (P. Wachtel ed. 1981); Meese, *Testing for Bubbles in Exchange Markets: A Case of Sparkling Rates*, 94 J. Pol. Econ. 345, 346 (1986). See also Tirole, *On the Possibility of Speculation Under Rational Expectations*, 50 *Econometrica* 1163, 1178-97 (1982) (formulating a model using the rational expectations theory which allows for the formation of speculative bubbles); Van der Ploeg, *Rational Expectations, Risk and Chaos in Financial Markets*, 96 *Econ. J.* 151, 151-52 (Supp. 1986) (hypothesizing that rational speculative bubbles occur in the bond market). For an interesting account of many historical bubbles, see C. Kindleberger, *Manias, Panics and Crashes* (1978).

increasing the demand for a security.¹⁰⁰ The price increases would in turn attract other investors who, anticipating further price inflation, would also purchase the security, and, as a result, further inflate the price.¹⁰¹ Those investors who were attracted to the security by the increases in prices would be subject to a holding period requirement during the same time period. The incentive to hold the securities rather than sell into a rising market could contribute to an additional inflation in prices by restricting the supply of securities. At some point, the bubble would burst, perhaps because of adverse news of some nature.¹⁰²

The issue whether rational speculative bubbles actually occur in the stock market has generated controversy. At least one study has concluded that rational speculative bubbles do not occur in the stock market.¹⁰³ Other commentators, while refusing to state that bubbles never occur, have expressed great skepticism about the existence of bubbles because of the stringent conditions which the

¹⁰⁰ Shleifer has found that stocks have a downward sloping demand curve which results in price changes when demand for the stock changes. See Shleifer, *supra* note 60, at 588-89. In a similar vein, others have noticed that transactions involving large sales or purchases of blocks of securities have an impact on stock prices. See, e.g., Easley & O'Hara, *Price, Trade Size, and Information in Securities Markets*, 19 *J. Fin. Econ.* 69, 69-71 (1987); Holthausen & Leftwich, *supra* note 60, at 237-38, 264-65; Krauss & Stoll, *supra* note 60; LaHarris & Gurel, *Price and Volume Effects Associated with Changes in the S&P 500 List: New Evidence for the Existence of Price Pressures*, 41 *J. Fin.* 815, 828 (1986) (increase in the volume of trading in stock results in increases of price volatility of the stock.)

¹⁰¹ Gikas Hardouvelis of the Research and Statistics Group of the Federal Reserve Bank of New York explained rational speculative bubbles as follows:

In the case of a rational speculative bubble, investors know that the bubble may crash and that they will not be able to get out once the crash starts, but they remain in the market because they believe—for whatever reason—there is good probability that the bubble will continue to grow, bringing them large positive returns. These returns are expected to be higher than the risk-free rate plus the usual risk premium in the absence of bubbles, and large enough to compensate them exactly for the probability of a bubble crash and a large onetime negative return. Hence it is rational for investors to stay in the market.

Hardouvelis, *Evidence on Stock Market Speculative Bubbles: Japan, the United States, and Great Britain*, 13 *Fed. Reserve Bank of N.Y. Q. Rev.* 4, 5 (Summer 1988).

¹⁰² See Blanchard & Watson, *supra* note 99, at 299 (the probability that the bubble ends may well be a function of how long the bubble has lasted, or how far the price is from market fundamentals).

¹⁰³ See B. Diba & H. Grossman, *Rational Bubbles in Stock Prices?* Nat'l Bureau of Econ. Research Working Paper No. 1779 at 19-21 (1985). See also West, *Bubbles, Fads and Stock Price Volatility Tests: A Partial Evaluation*, 43 *J. Fin.* 639, 648-50 (1988) (while the 1987 crash is consistent with the existence of a speculative bubble, the conditions for bubbles are too stringent to make bubbles particularly attractive).

mathematical descriptions of speculative bubbles contain.¹⁰⁴ One of the most descriptive and realistic models for speculative bubbles was formulated by Professor Tirole.¹⁰⁵ But for a bubble to exist under the Tirole model, securities prices must be in excess of their fundamental values (meaning that only positive bubbles can exist),¹⁰⁶ and the mean growth rate of the economy must exceed the mean return on stocks.¹⁰⁷ Commentators argue that these conditions may be too restrictive to suggest that rational speculative bubbles exist.¹⁰⁸

Despite the difficulties in formulating realistic mathematical models for rational bubbles, other commentators have suggested that they actually occur in the securities markets.¹⁰⁹ While this has not yet been conclusively confirmed,¹¹⁰ a recent study by the Federal Reserve Bank of New York has "isolated evidence consistent with the hypothesis of rational bubbles in the national stock markets of Japan and the United States before the October [1987] crash."¹¹¹ Consequently, holding period requirements could contribute significantly to market distortions in a rational market in the event a rational speculative bubble occurred. The holding period requirement would encourage investors to hold, rather than sell, their stock in a rising market and, as a result, contribute to

¹⁰⁴ See West, *supra* note 103, at 650.

¹⁰⁵ See Tirole, *Asset Bubbles and Overlapping Generations*, 53 *Econometrica* 1499 (1985) (presentation of Prof. Tirole's model). See also Tirole, *supra* note 99, at 1163-81.

¹⁰⁶ See Tirole, *Asset Bubbles and Overlapping Generations*, *supra* note 105, at 1503, n.8.

¹⁰⁷ See *id.*; West, *supra* note 103, at 649 (explaining Tirole's model).

¹⁰⁸ West, *supra* note 103, at 650.

¹⁰⁹ See, e.g., Tirole, *Asset Bubbles and Overlapping Generations*, *supra* note 105, at 1513-14; Ackley, *Commodities and Capital: Prices and Quantities*, 73 *Am. Econ. Rev.* i, 13 (1983).

¹¹⁰ See Meese, *supra* note 99, at 346 ("There exists, however, very little academic empirical evidence on which we might assess the validity of this 'bubbles' hypothesis."). Indeed, some of the literature has noted just how difficult it is to show the impact of speculative bubbles on stock prices because of problems in determining fundamental values of stocks. See, e.g., Flood & Hodrick, *Asset Price Volatility, Bubbles, and Process Switching*, 41 *J. Fin.* 831, 832, 839-40 (1986); Blanchard & Watson, *supra* note 99, at 314; Shiller, *supra* note 83, at 61.

¹¹¹ Hardouvelis, *supra* note 101, at 15. This evidence was found by determining whether stock prices prior to the October crash included a component (the "bubble premium") which rewarded investors for the risk associated with the inevitable collapse of bubble prices. See *id.* at 7-10. Hardouvelis hypothesized that as the bubble progressed, the bubble premium should also grow progressively larger as the risk of loss from the bubble bursting increased. See *id.* Hardouvelis' analysis of price data suggested that this did in fact occur. See *id.* at 8-15.

the inflation of stock prices above their fundamental values.

V. IRRATIONAL STOCK MARKETS, HOLDING PERIOD REQUIREMENTS, AND SOCIETAL WELFARE

Although speculation in a rationally efficient market is innocuous since stock prices will by definition accurately reflect their fundamental values (unless a rational speculative bubble occurs), speculation may be harmful to societal welfare if the market is irrational. The hallmark of an irrational market is that prices frequently vary from fundamental values. Speculation would be harmful if short-term trading exacerbated the variance of stock prices from their fundamental values. This could occur, for example, if irrational speculators began to purchase and hold a particular stock based on some irrational or emotional expectation that the stock's price would increase. The activity of purchasing and holding the stock could inflate the price of the security above its fundamental value.

Variance of stock prices from the fundamental values has several negative effects. Stock prices influence plans for capital formation regardless of whether the stock market is rational.¹¹² Thus, the variance of stock prices from their fundamental values in an irrational market impedes planning for capital formation, because it generates uncertainty about the returns associated with various investments.¹¹³ Excessive variance could also cause investors to demand a greater return from stock because of the risk associated with investing in an irrational market, thereby depressing stock prices and raising the cost of capital to businesses.¹¹⁴ Moreover,

¹¹² See Fischer & Merton, *supra* note 89, at 94; Marsh & Merton, *Dividend Variability and Variance Bounds Tests for the Rationality of Stock Market Prices*, 76 *Am. Econ. Rev.* 483, 484 (1986). Others have argued, however, that stock prices are too volatile to be closely related to investment. See Malinvaud, *Wages and Unemployment*, 92 *Econ. J.* 1 (1982). Ueda and Yoshikawa argue that volatility in stock prices arise from movements in the discount rate. They state that for short-term investments which do not involve a long lead time, management must evaluate investment using the volatile discount rate if management wishes to further the interest of the stockholders. However, for investments which will not be productive immediately, management will ignore the discount rate because it is dominated by temporary components and will instead focus on the profitability of the long-term project. See Ueda & Yoshikawa, *Financial Volatility and the Q Theory of Investment*, 53 *Economica* 11, 22 (1986).

¹¹³ F. Edwards, *supra* note 87, at 5-6.

¹¹⁴ See Malkiel, *The Capital Formation Problem in the United States*, 34 *J. Fin.* 291, 306

excessive variance may diminish the confidence of investors in the market and cause them to withdraw from the market, thereby reducing market liquidity and also raising the return remaining investors would demand from their investments.¹¹⁵

If speculation contributes to the variance of stock prices from their fundamental values in an irrational market, the harm arising from speculation could be substantial. However, as will be explained, holding period requirements also contribute to the variance of stock prices from fundamental values in an irrational market and consequently do not constitute an effective or appropriate method for improving societal welfare in an irrational market.

A. *Is the Stock Market Rational?*

There have been several early studies which have examined the rationality of the stock market and have concluded that it is rational.¹¹⁶ Indeed, one commentator stated that the existence of a rationally efficient market seemed to be the best established empirical fact in economics.¹¹⁷ Unfortunately, the literature to date is not conclusive that the stock market operates in a rationally efficient manner, and further doubts naturally arose in the wake of the October 1987 crash. Following the crash, Professor Shiller commented, "The efficient market hypothesis is the most remarkable error in the history of economic theory. This is just another nail in its coffin."¹¹⁸

Recently, several authors have challenged the notion that prices in capital markets reflect prices that would have been established in rationally efficient markets.¹¹⁹ Those studies most relevant to

(1979); Pindyck, Risk Inflation and the Stock Market, 74 *Am. Econ. Rev.* 335, 346-47 (1984); R. Pindyck, Risk Aversion and Determinants of Stock Market Behavior 4 (Alfred P. Sloan School of Management, Massachusetts Institute of Technology Working Paper No. 1801-86, 1986).

¹¹⁵ F. Edwards, *supra* note 87, at 6.

¹¹⁶ See, e.g., E. Fama & M. Miller, *The Theory Of Finance*, 336-37 (1972); B. Lev, *Financial Statement Analysis: A New Approach* 223 (1974); Fama & MacBeth, *Risk Return and Equilibrium: Empirical Tests*, 81 *J. Pol. Econ.* 607 (1973); Ronn, *On The Rationality Of Common Stock Return Volatility*, 21 *Fin. Rev.* 355 (1986).

¹¹⁷ See Jensen, *Some Anomalous Evidence Regarding Market Efficiency*, 6 *J. Fin. Econ.* 95 (1978).

¹¹⁸ Donnelly, *Efficient Market Theorists are Puzzled by Recent Gyration in Stock Market*, *Wall St. J.*, Oct. 23, 1987, at 7, col. 4.

¹¹⁹ See, e.g., Modigliani & Cohen, *Inflation, Rational Valuation and the Market*, 35 *Fin.*

the desirability of using holding periods to influence investor behavior relate to whether stock market prices are more volatile than rational behavior would indicate and whether the market overreacts to news.

The major theoretical argument against the idea that market prices may not always reflect fundamental values because the market behaves irrationally is that rational investors would quickly take advantage of the profit opportunity, and, as a result, the price variance would almost immediately disappear. If prices of stocks were below fundamental values, rational investors would purchase those stocks and the increased demand would drive the prices up. If prices of stocks were above fundamental values, rational investors would sell or engage in short sales of those stocks and drive prices back down to the stocks' fundamental values.

However, Professor Shiller has argued that the profit opportunity created by irrational investors may not be large enough to attract rational investors.¹²⁰ Shiller posits a situation in which a stock with a dividend yield of 4.5 percent is bid up by enthusiastic investors with the result that its price doubles. If the enthusiasm is unpredictable and if no reason exists to believe that such enthusiasm will subside in the near future, then the anticipated yield falls to only 2.25 percent. Shiller argues that this small change in yield "does not present any dramatic, riskless profit opportunity through short sales or option markets"¹²¹ which means that the "inefficiency" will not be immediately corrected. Moreover, Professor Arrow has observed that a minority of rational investors may not influence the market if a majority of investors are behaving irrationally.¹²² And Professor Summers has stated that "[t]here are no grounds for assuming either that irrational traders will be eliminated, or that they will be unable to move market prices."¹²³

Analysts J., Mar.-Apr. 1979, at 24-44 (suggesting that stock market overreacted to inflation); Shiller, *Do Stock Prices Move Too Much to be Justified by Subsequent Changes in Dividends?*, 71 *Am. Econ. Rev.* 421 (1981) (stock prices are more volatile than rational prices would be); Summers, *Does the Stock Market Rationally Reflect Fundamental Values?*, 41 *J. Fin.* 591, 600 (1986).

¹²⁰ See Shiller, *supra* note 83, at 59; Shiller, *Stock Prices and Social Dynamics*, 1984 *Brookings Papers on Economic Activity* 457; Summers, *supra* note 119, at 591-600.

¹²¹ Shiller, *supra* note 83, at 59.

¹²² See Arrow, *Risk Perception in Psychology and Economics*, 20 *Econ. Inquiry* 1, 7-8 (1982).

¹²³ Summers, *supra* note 119, at 599. See also Russell & Thaler, *The Relevance of Quasi*

1. *Excess Volatility*

One important implication of an irrational market is that it would exhibit excessive price volatility. Shiller¹²⁴ and others¹²⁵ have argued that the stock market is irrational because stock market prices change too much to be equivalent to prices that would be established in a perfectly rational market. Their conclusion is based on studies in which they compared the movement of stock price indices to the present value of the subsequent dividends of the stock which comprise the indices.¹²⁶ Shiller concluded that the amount of movement in stock prices was five to thirteen times too high to be attributed to new information about anticipated dividends.¹²⁷

The foregoing findings, however, have been challenged based on the use of the present value of dividends as a proxy for the fundamental value of the stocks. Commentators have argued that the formula Shiller used to calculate the present value of the subsequent dividends assumed that management sets dividends to grow at a specified rate.¹²⁸ They assert that management does not blindly adhere to a dividend policy which requires dividends to grow at a specified rate but instead deviates from such a growth plan in response to changes in the long-term sustainable earnings of the corporation.¹²⁹ Thus, the commentators conclude that the volatility observed by Shiller does not indicate that the market is behaving irrationally but rather only indicates a dividend policy which is more volatile than assumed by Shiller.¹³⁰

Rationality in Competitive Markets, 75 *Am. Econ. Rev.* 1071, 1071 (1985) ("We show that the knee-jerk reaction of some economists that competition will render irrationality irrelevant is apt only in very special cases, probably rarely observed in the real world.").

¹²⁴ See Shiller, *supra* note 83, at 60; Shiller, *supra* note 119, at 433-34; Shiller, *The Use of Volatility Measures in Assessing Market Efficiency*, 36 *J. Fin.* 291, 303-04 (1981).

¹²⁵ See, e.g., Grossman & Shiller, *The Determinants of the Variability of Stock Market Prices*, 71 *Am. Econ. Ass'n Papers and Proceedings* 222, 226 (1981); Joerding, *Are Stock Prices Excessively Sensitive to Current Information?*, 9 *J. Econ. Behavior and Org.* 71, 75-80 (1988); LeRoy & Porter, *The Present-Value Relation: Test Based Implied Variance Bounds*, 49 *Econometrica* 555, 571 (1981).

¹²⁶ See *id.*

¹²⁷ See Shiller, *supra* note 119, at 433-34.

¹²⁸ See Marsh & Merton, *supra* note 112, at 491.

¹²⁹ See Marsh & Merton, *supra* note 112, at 488-89. See also Kleidon, *Anomalies in Financial Economics: Blueprint for Change?*, 59 *J. Bus.* S469, S485 (Supp. 1986).

¹³⁰ For other commentators who made similar arguments, see Copeland, *Do Stock Prices Move Too Much to be Justified by Subsequent Changes in Dividends: Comment*, 73 *Am.*

2. *Fads and Noise*

Shiller has argued that “fashions” and “fads” may cause the excess volatility he had observed. “Fashions” and “fads” are terms Shiller uses to describe his theory, based upon psychological and sociological studies, that stock prices may be influenced simply by group psychology or the “herd” instinct.¹³¹ In effect, Shiller has led the theory of market behavior full circle back to Keynes who suggested that markets are sometimes driven by emotions that do not reflect economic reality.¹³² Shiller states:

Modern psychology does not reduce human behavior to a simple model like the expected utility model that underlies theoretical finance. The literature on gambling behavior shows the plausibility made in the usual anecdotes [of market crashes] that there is sometimes excessive enthusiasm for certain financial assets and thus that other financial assets are sometimes ignored. The literature on salience and human judgment makes plausible the claims in the anecdotes that popular attention to certain speculative assets was capricious. The literature on group polarization of attitudes adds some further plausibility to the claim in the anecdotes that groups of individuals may tend to act together, reaching the same decisions around the same times.¹³³

Thus, Shiller posits that investors acting in concert may drive prices above their fundamental value. However, the direct statistical evidence regarding fads and fashions is inconclusive. Professor West has stated that “[t]he quantitative evidence in favor of fads as an explanation of stock price volatility is largely indirect, in the form of negative verdicts on bubbles and on traditional models for returns But at present there is little formal positive evidence to sway someone unsympathetic to fads models.”¹³⁴ West has suggested, however, that fads could explain the runup in stock prices in 1987 and the subsequent crash.¹³⁵

Econ. Rev. 234, 234-35 (1983). However, Professor Kenneth D. West in a recent paper argues that he has corrected for these deficiencies and still found that stock prices are too volatile to be explained by rationality. West, *Dividend Innovations and Stock Price Volatility*, 56 *Econometrica* 37, 50-51, 58 (1988).

¹³¹ Shiller, *supra* note 83.

¹³² See J. Keynes, *supra* note 88, at 56, 59.

¹³³ Shiller, *supra* note 83, at 65.

¹³⁴ West, *supra* note 103, at 654.

¹³⁵ See West, *supra* note 103, at 652.

Somewhat similar to the group psychology theory of fads is "noise theory." Fisher Black drew upon the concept of noise theory in 1986 to explain why stock prices do not necessarily reflect fundamental values.¹³⁶ Rather than focus simply on fads, he suggested that investors could make decisions based on a number of factors which may not relate to the fundamental value of the security.¹³⁷ For example, Professor Trueman has suggested that managers of investment funds trade securities when the information they possess does not justify trading in order to create the appearance for their customers that they have nonpublic information about certain securities.¹³⁸ Similarly, West has suggested that the hypothesis of Shiller¹³⁹ regarding the influence of psychological and sociological factors on investment decisions further illustrates the impact that noise trading by naive investors has on the markets.¹⁴⁰

If the market is irrational and ruled by investor emotions, it would be easy to envision the "herd" instinct hypothesized by Shiller causing prices to inflate above their fundamental value as demand for the favored stocks increased. But what happens when some event causes the herd instinct to reverse? Is there any evidence that stock prices drop below their fundamental value in reaction to negative news? If so, one could envision a market with sharp swings of prices above and below their fundamental values.

3. *Market Overreaction*

Studies suggest that the stock market does overreact to news in adjusting the prices of securities. Given that psychologists have found that persons overreact to new information in making judgments about the probability of future events occurring,¹⁴¹ it is perhaps not surprising that several studies have reported that stock prices temporarily depart from their underlying fundamental values as a result of investors overreacting to reported earnings. For example, Professors DeBondt and Thaler assert that they have

¹³⁶ See Black, *Noise*, 41 *J. Fin.* 529, 529, 530-34 (1986).

¹³⁷ See *id.* at 529.

¹³⁸ See Trueman, *A Theory of Noise Trading in Securities Markets*, 43 *J. Fin.* 83, 83-84, 88 (1988).

¹³⁹ See *supra* note 133 and accompanying text.

¹⁴⁰ See West, *supra* note 103, at 652.

¹⁴¹ See Tversky & Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 *Science* 453 (1981).

found "considerable evidence consistent with the simple hypothesis"¹⁴² that investors overreact to reported earnings.¹⁴³ Interestingly, the authors found that the responses to earnings reports were asymmetrical. Investors appear to overreact more strongly to negative news than positive news. This finding is consistent with the suggestion of other commentators that the aggravation that persons experience in losing money seems to be greater than the pleasure of gaining the same amount.¹⁴⁴

DeBondt and Thaler found that stocks which had the largest losses during a three-year period had gains in the subsequent five-year period which were 19.6 percent greater than what would have been expected based on the capital asset pricing model.¹⁴⁵ The sharp rebound in prices indicates that the stocks were priced below their fundamental value during the initial three-year period. One might question whether test periods that are so long are indicative of investor overreaction or some other phenomenon, since human nature is to overreact for a short period, not years.¹⁴⁶ However, Professors Brown and Harlow have found that stocks with the largest losses during a one-month period had the largest gains the following month.¹⁴⁷ Indeed, they state that there is strong evidence that the shorter the duration of the initial price changes, the more

¹⁴² DeBondt & Thaler, *Further Evidence on Investor Overreaction and Stock Market Seasonality*, 42 *J. Fin.* 557 (1987).

¹⁴³ DeBondt & Thaler, *Does the Stock Market Overreact?*, 40 *J. Fin.* 793, 799-805 (1985).

¹⁴⁴ See Kahneman & Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 *Econometrica* 263, 279 (1979).

¹⁴⁵ The formula which is based on the capital asset pricing model and which is used to calculate excess return is as follows:

$$ER_{it} = R_{it} - a_i - b_i R_{mt}$$

where ER_{it} = excess return on stock i for day t

R_{it} = actual return on stock i for day t

R_{mt} = return on the market portfolio for day t

a_i = constant, estimated for a period prior to the event

b_i = beta of stock i , a measurement of non-diversifiable risk, estimated from a period prior to the event

DeBondt & Thaler, *supra* note 143, at 799-805.

¹⁴⁶ Indeed, Fama and French have suggested that DeBondt's and Thaler's findings can also be explained by time-varying equilibrium expected returns that are highly autocorrelated but mean reverting. See Fama & French, *Permanent and Temporary Components of Stock Prices*, 96 *J. Pol. Econ.* 246, 248 (1988).

¹⁴⁷ See Brown & Harlow, *Market Overreaction: Magnitude and Intensity*, 14 *J. Portfolio Mgmt.* 6, 7 (Winter 1988).

extreme the subsequent response.¹⁴⁸ Brown and Harlow conclude:

The revelation of unfavorable news may well induce traders to quickly limit their downside losses, thereby creating market pressures that depress prices below levels justified by the information itself. The longer-term results, on the other hand, also indicate that investors in the affected company continue to sell their shares for several years after the initial event—which suggests that stocks that are judged initially to be “losers” tend to remain that way in the long run, despite the presence of any short-run adjustment.¹⁴⁹

Not all commentators conclude that the findings of DeBondt, Thaler, Brown and Harlow challenge the rationality of the stock market. Some commentators have argued that the findings do not represent overreaction by investors but are consistent with changes in the expected return of the security.¹⁵⁰ Moreover, Professor Chan has argued that DeBondt and Thaler may have misapplied the capital asset pricing model when they failed to consider that the risks of stocks are not constant over time.¹⁵¹ When Chan factored this into the calculation, he found only negligible excess returns for the same sample data used by DeBondt and Thaler.¹⁵²

Chan's challenge illustrates a recurrent problem with attempts to analyze whether the stock market is rational. In order to determine whether a security or portfolio of securities has excess returns it is necessary to first calculate what its “normal” return should have been. This task is not always easy to perform. For example, the accuracy of the capital asset pricing model has been increasingly challenged, prompting some commentators to state that “[i]t may be only a slight overstatement to say that only in the legal literature is [the capital asset pricing model] considered an *accurate* account of market processes.”¹⁵³

¹⁴⁸ See *id.*

¹⁴⁹ *Id.* at 12.

¹⁵⁰ See Fama & French, *supra* note 146, at 248.

¹⁵¹ See Chan, On the Contrarian Investment Strategy, 61 *J. Bus.* 147, 160 (1988).

¹⁵² *Id.* at 153.

¹⁵³ Gordon & Kornhauser, Efficient Markets, Costly Information and Securities Research, 60 *N.Y.U. L. Rev.* 761, 765 (1985).

B. Impact of the Holding Period Requirement of the Long-Term Capital Gains Preference in an Irrational Market

If the stock market is irrational and fads do in fact occur, the holding period requirement of the long-term capital gains preference could intensify the inflation of stock prices above fundamental values. This would result if investors hold rather than sell their stocks in a rising market and thereby limit the supply of securities. As mentioned earlier, studies have shown that the tax incentive to delay the sale of stocks with unrealized appreciation until the long-term holding period is satisfied has a statistically significant impact on the time at which investors sell stock.

If a fad caused an inflation of stock prices, one could further hypothesize that when the fad dissipated, investors would overreact and rush to sell securities with losses. This would be particularly true if the losses could be deducted from ordinary income for federal income tax purposes as was the case for short-term capital losses.¹⁵⁴ The investors' rush to sell securities with losses would accelerate the decrease in prices.

To date however, no study has statistically confirmed that investors accelerate recognition of their losses in order to qualify the losses as short-term capital losses. In fact, a recent study by Professors Lakonishok and Smidt suggests that they do not.¹⁵⁵ Lakonishok and Smidt hypothesized that the volume of sales of stock with losses should be greatest in the final month of the holding period because transaction costs would cause investors to wait until the last moment to realize the loss.¹⁵⁶ To test this hypothesis, they compared the volume of sales of stocks which had experienced losses in the previous five months in a period when the holding period requirement was six months to the volume of sales

¹⁵⁴ Prior to the repeal of the capital gains preference, taxpayers who were not corporations could deduct up to \$3000 of short-term losses from ordinary income. I.R.C. § 1211(b)(1)(B) (1954). Interestingly, even after the repeal of the capital gains preference, taxpayers who are not corporations may still only deduct up to \$3,000 of their short-term capital losses from ordinary income. I.R.C. § 1211(b)(1)(B).

¹⁵⁵ Lakonishok & Smidt, *Volume for Winners and Losers: Taxation and Other Motives for Stock Trading*, 41 *J. Fin.* 951, 961, 973 (1986).

¹⁵⁶ Indeed, it seems likely that investors would also wait until the last moment in the hope that the losses would be reversed. Investors clearly prefer to realize gains rather than losses. Lakonishok and Smidt found that the volume of trading in stocks with gains is significantly higher than the volume of trading in stocks with losses. See *id.* at 961, 973.

for stocks which had experienced losses in the previous eleven months in a period when the holding period requirement was twelve months. If investors tended to sell stocks with losses in the final month of the holding period, the volume of the sale of losers should have been higher for the fifth month in the period when the holding period requirement was six months than the period when the requirement was twelve months. Conversely, the volume of losers should have been higher in the eleventh month when the holding period was twelve months than when the holding period was six months. However, they found no statistically significant difference.

It is difficult to determine the implications of the findings of Lakonishok and Smidt. It is possible that tests which compare the total volume of sales of stocks with losses during the short-term holding period to stocks with losses after the holding period requirement is satisfied would find a statistically significant difference. But to date, no such studies have been published. It is also possible that the limitation of the deduction of the short-term losses from ordinary income plays a role in significantly diminishing the tax motive to sell short-term losers.¹⁵⁷

C. Impact of the Holding Period Requirement of the Short-Short Rule

Similar reasoning suggests that the holding period requirement of the short-short rule can diminish societal welfare. If fads occur and if mutual funds had purchased stock at the start of the fad, the funds would not be able to sell into a rising market and help defuse the fad without risking the loss of flow-through status for federal income tax purposes. Moreover, even if fads do not occur,

¹⁵⁷ Prior to the Tax Reform Act of 1976, Pub. L. No. 94-455, 90 Stat. 1559, taxpayers who were not corporations were limited to deducting \$1,000 of short-term capital losses from ordinary income. The Tax Reform Act of 1976 raised the limit to \$2,000 for 1977 and \$3,000 for subsequent years. Pub. L. No. 94-455, § 1401(a), 1401(b), 90 Stat. 1559, 1731. It is also possible that investors are simply reluctant to sell stocks with losses. The so-called "disposition effect theory" postulates that investors have a propensity to sell stocks with gains and to hold on to stocks with losses. See, e.g., Ferris, Haugen & Makhija, Predicting Contemporary Volume With Historic Volume at Differential Price Levels: Evidence Supporting The Disposition Effect, 43 J. Fin. 677, 677 (1988); Shefrin & Stateman, The Disposition To Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence, 40 J. Fin. 777, 778 (1985).

the holding period requirement still distorts prices, although not as greatly, by causing funds to restrict artificially the supply of securities until the requirement is satisfied.

One potential benefit of the short-short rule is that it discourages mutual funds from selling into a falling market after a bubble bursts or fad dissipates. However, this potential benefit does not outweigh the harm created by discouraging the funds from selling into a rising market for two reasons. First, stockholders of the open-end mutual funds¹⁵⁸ could thwart the beneficial impact of the incentive. Open-end funds are required to redeem stock of their stockholders at the request of stockholders.¹⁵⁹ If a sufficient number of stockholders who are discouraged by a falling market seek to have their stock in open-end mutual funds redeemed, the funds would be required to sell stock in order to have sufficient cash for the redemption regardless of the desire of management of the funds not to violate the short-short rule.¹⁶⁰ Second, because investors overreact more strongly to negative news than positive news, any beneficial impact arising from the funds not selling into a falling market would probably be overwhelmed by the overreaction of other investors eager to exit the market.

¹⁵⁸ Open-end mutual funds are funds that offer redeemable shares of stock which are traded primarily through redemption and reissuance by the mutual fund at the per share net asset value of the fund. See T. Hazen, *The Law of Securities Regulation* 579 (1985). Most mutual funds are open-end funds. See *id.*

¹⁵⁹ Under section 22(e) of the Investment Company Act of 1940, 15 U.S.C.A. § 80a-22(e), mutual funds may only suspend the right of redemption when (1) the New York Stock Exchange is closed or has restricted trading (2) during an "emergency" which causes redemption to be "not reasonably practicable," or (3) in accordance with rules issued by the Securities and Exchange Commission (the "SEC"). 15 U.S.C.A. § 80a-22(e) (West 1981 & Supp. 1988). To date the SEC has not issued any rules.

¹⁶⁰ While it is far from certain that mutual fund activity played any role in the stock market crash on October 19, 1987, the following anecdotal information is interesting. According to the Report of the Presidential Task Force on Market Mechanisms, IV-1 to IV-2 (Jan. 1988), mutual fund liquidity is usually maintained at a level equal to one month of stockholder redemptions. On October 19, mutual fund stockholders sought to have stock valued at \$2.3 billion redeemed. *Id.* The funds were able to meet approximately two-thirds of all redemptions through cash reserves. *Id.* Of a sales volume of approximately \$21 billion on the New York Stock Exchange on October 19, however, mutual funds accounted for \$963 million dollars of that sales volume. *Id.* at 36, IV-1.

Although it is not clear whether the redemptions caused funds to fail the short-short rule, the *Wall Street Journal* reported that "the crash caused" approximately 20 mutual funds to violate the short-short rule. *Wall St. J.*, Aug. 17, 1988, at 1, col. 5.

D. Summary

The use of holding period requirements is not an appropriate response to stock market volatility. There is no conclusive evidence that the type of short-term trading which would be discouraged by holding period requirements contributes to volatility. Even if short-term trading did contribute to volatility, volatility would not be harmful unless it caused stock prices to vary from this fundamental value as determined in a rationally efficient market. Under the efficient market theory, rational investors assure that prices do not stray from their fundamental values. Consequently, in a rationally efficient market, holding periods are not needed. Indeed, holding periods distort prices in a rationally efficient market by artificially restricting the supply of stocks. This distortion could be extremely harmful if rational speculative bubbles occur.

If the stock market behaves irrationally, short-term trading could contribute to the variance of prices from their fundamental values. However, holding period requirements are not an appropriate method for curbing speculation in an irrational market because they increase the probability that prices will vary from their fundamental values in two ways. First, they decrease the supply of securities while the holding period requirement is being satisfied. Second, they may reinforce irrational investor behavior such as that involved in fads and, as a result, contribute to the inflation of stock prices above their fundamental values. The inflated prices may then drop below fundamental value as investors overreact to negative news.

VI. POLICY RECOMMENDATIONS

A. Long-Term Capital Gains Preference

Clearly, the preference for long-term capital gains should not be reenacted if the primary purpose for its reenactment is to reduce market volatility. However, other rationales for reviving the preference have been offered.¹⁶¹ Because those rationales are controver-

¹⁶¹ One rationale for the restoration of the capital gains preference is that it will increase revenues by encouraging taxpayers to sell capital assets which have appreciated in value. See Darby, Gillingham, & Greenlees, *supra* note 6, at 2; Lindsey, Capital Gains Taxes Under the Tax Reform Act of 1986: Revenue Estimates Under Various Assumptions, 40 Nat'l Tax J. 489, 489 (1987). However, several commentators have argued that it is likely that restora-

sial and have been extensively discussed in other literature,¹⁶² they will not be discussed here. It is important to note, though, that any benefits which may be identified in rationales for reenacting the preference should be weighed against the costs to societal welfare which have been discussed in this article.¹⁶³

tion of the preference would reduce, rather than increase revenues. See, e.g., Minarik, *The New Treasury Capital Gain Study: What Is In The Black Box?*, 39 *Tax Notes* 1465 (June 20, 1988).

Another rationale for restoration of the preference is that it is unfair to tax appreciation that has been accrued over a period of time at a progressive rate, particularly where the appreciation is partly attributable to inflation. See B. Bittker, *Federal Taxation of Income, Estates and Gifts*, ¶ 3.5.7 at 3-61 (1981); Nilson, *Neutral Capital Gains Taxation Under Inflation and Tax Deferral*, 31 *Nat'l Tax J.* 401 (1978); Waggoner, *Eliminating the Capital Gains Preference, Part I: The Problem of Inflation, Bunching, and Lock-In*, 48 *U. Colo. L. Rev.* 313, 354-56 (1977). However, this problem could be addressed by taxing only real appreciation not attributable to inflation. Various proposals for tax reform have suggested indexing capital gains to the inflation rate. See, e.g., *Capital Gains Tax Bills: Hearings On S. 2428, S. 2608, and S. 3065 Before the Subcomm. on Taxation and Debt Management Generally of the Senate Comm. on Finance, 95th Cong., 2d Sess.* at 151 (1978) (statement of William Penick) (proposing indexation of inflation so that only real economic gain would be taxed); U.S. Dep't of the Treas., *Blueprints for Basic Tax Reform 5* (2d ed. 1984) (suggesting that capital gains be fully taxed upon sale or exchange after stepping-up the basis to account for inflation); U.S. Dep't of the Treas., *Tax Reform for Fairness, Simplicity and Economic Growth 101* (1984) (proposing step-up in basis of assets to account for inflation); *President's Tax Proposals to the Congress for Fairness, Growth and Simplicity 166-71* (proposing that taxpayers be permitted to elect to index the basis of capital assets sold during the taxable year in lieu of taking the capital gains deduction).

Another rationale is that incentives for capital formation are needed. See e.g., Landau, *U.S. Economic Growth*, 258 *Scientific American* 44, 50 (1988) (government should provide incentives for investment). However, it is not clear that a capital gains preference is the best method to stimulate capital formation. A more direct stimulant, such as investment credits, may be more efficient in stimulating capital growth. See, e.g., Summers, *Investment Incentives and the Discounting of Depreciation Allowances*, in *The Effects of Taxation on Capital Accumulation* 295, 302 (M. Feldstein ed. 1987) (investment credits are a potent incentive for capital formation).

¹⁶² See sources cited *supra* note 161.

¹⁶³ It is also important to note that if the preference is restored for one of the reasons discussed in note 161, *supra*, a holding period requirement may be appropriate despite the costs arising from the distortion of the markets. This may result from a desire to provide some horizontal equity to taxpayers, i.e., to tax professional securities traders at the same rate as the ordinary income of non-traders. It may also result from the fact that the revenue loss associated with not having a holding period is greater than the harm created by the market distortion. But see Office of Economic Research of the New York Stock Exchange, *Revenue Estimates of an Elimination of the Capital Gains Holding Period*, 20 *Tax Notes* 515 (Aug. 15, 1983) (elimination of holding period would increase revenue).

B. *The Short-Short Rule*

In contrast to the preference for long-term capital gains, little attention has been devoted to an examination of the rationales, in addition to reducing short-term trading and market volatility, for the short-short rule. Accordingly, this article will now examine these additional rationales.

1. The Short-Short Rule Does Not Assure Preservation of Capital

In addition to stating that the short-short rule prevents short-term trading, the Service has asserted that the rule assures the preservation of capital.¹⁶⁴ However, this assertion is counterintuitive. If investment managers can be trusted to select the types of securities to purchase and the time at which such purchases should be made, it seems arbitrary to impose a restriction on the time at which they may sell such securities. The restriction prevents investment managers from taking action which they may deem appropriate to preserve the capital of the fund's stockholders.

A poignant illustration of the deleterious impact of the short-short rule is found in mutual funds' efforts to hedge their portfolios. Various hedging transactions can help prevent a diminution in value of securities. However, these hedging transactions, in preventing a decrease in value, can also generate short-short gain which could disqualify the mutual fund for flow-through status.

The hedging transactions utilized by mutual funds usually involve the short sales of securities¹⁶⁵ held by the funds, the purchase of options to sell securities¹⁶⁶ held by funds, and the sale of stock index futures. The short sale of a security and the purchase of an option to sell a security held by a fund can result in the termination of the holding period of the security for purposes of the short-short rule.¹⁶⁷ Moreover, gain arising from the sale of

¹⁶⁴ See Rev. Rul. 75-376, 1975-2 C.B. 267, 268 (1975).

¹⁶⁵ See *supra* note 84 (discussion of short sales).

¹⁶⁶ An option to sell a security gives the option holder the right to sell a security at a specific price at any time up to and including the maturity date of the option. Options to sell are usually called "puts." *Id.* at 232.

¹⁶⁷ Rev. Rul. 74-434, 1974-2 C.B. 195. Treasury Regulation § 1.1092(b)-2T(d) has the effect of preventing the termination of the holding period for stock with respect to which stock index futures are sold.

futures contracts can frequently be realized prior to satisfaction of the three-month holding period requirement of the short-short rule.

In 1986, Congress, recognizing this problem, attempted to provide an exemption to the short-short rule for hedging transactions. Congress accomplished this by modifying the computation of gross income of a fund and its gains from the sale of securities held for less than three months for purposes of section 851(b)(3). Section 851(b)(3) requires that less than 30 percent of a mutual fund's *gross income* be derived from the sale or exchange of stock or securities held for less than three months. Congress modified this rule by adding section 851(g),¹⁶⁸ which provides that for purposes of calculating gross income and short-short gain, positions which are part of a "designated hedge" should be netted.¹⁶⁹ That is, any increase in value of a position that is part of a "designated hedge" will be reduced by any decrease in value of the offsetting position, whether or not realized, for purposes of calculating the short-short gain and gross income. In order to qualify as a "designated hedge," the positions of the hedge must be "clearly identified by the taxpayer in the manner prescribed by regulations."¹⁷⁰

The Conference Committee Report explained that the rationale for this treatment was that hedging transactions are "consistent with the passive nature" of mutual funds.¹⁷¹ However, the method of netting gains and losses in identified hedges does not protect mutual funds which identify their hedges in all situations. In enacting this provision, Congress was in effect assuming perfect liquidity between the futures and stock market so that price disparities cannot occur. However, perfect liquidity between the two markets does not always exist with the result that decreases in value of stock will not always be perfectly matched by an equal increase in the value of the futures contracts.¹⁷² Consider for example the events of the stock market crash in October, 1987. On both Monday, October 19, and Tuesday, October 20, 1987, the prices of stock index futures were frequently trading at prices far below the

¹⁶⁸ I.R.C. § 851(g).

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ H.R. Conf. Rep. No. 841, *supra* note 38, at II-245.

¹⁷² See Merrick, *Portfolio Insurance With Stock Index Futures*, 8 *J. Futures Mkts.* 441, 442 (1988).

price of the underlying portfolio of stocks.¹⁷³ Consequently, mutual funds which had hedged their portfolio by selling stock index futures and then subsequently closed those futures transactions would have realized substantial net short-short gains when the gains from the stock index futures held for less than three months were netted against the losses of their portfolios. It is reported that this phenomenon actually resulted in some mutual funds losing their flow-through status as a result of the October crash.¹⁷⁴

2. *The Short-Short Rule is not Equitable*

The final rationale for the short-short rule was offered by the Conference Committee for the Tax Reform Act of 1986. The Report of the Conference Committee stated:

The conferees believe that the requirement that a RIC derive less than 30 percent of its gross income from the sale or other disposition of stock or securities held for less than three months is an appropriate requirement to ensure that a RIC is a passive entity that is appropriately granted pass-through status.¹⁷⁵

This rationale is questionable. The pass-through status of mutual funds is based on the idea that mutual funds "provide a means by which investors, including those of moderate means, can obtain the professional investment management and diversification of risk available to large institutions and the most wealthy individual investors."¹⁷⁶ Because the flow-through status of mutual funds represents a departure from the normal treatment of corporations as separate tax entities, it makes sense to preclude mutual funds from carrying on an active trade or business.¹⁷⁷ To do otherwise would give mutual funds an unfair advantage over large publicly held entities, such as corporations and master limited partnerships, which are generally treated as separate taxable entities.

¹⁷³ See, e.g., Report of the Presidential Task Force on Market Mechanisms, *supra* note 160, at 46.

¹⁷⁴ Falloon, *Catch-30*, 5 *Intermarket*, Apr. 1988, at 23, 23-24.

¹⁷⁵ H.R. Conf. Rep. No. 841, *supra* note 38, at II-245.

¹⁷⁶ Issues Relating to Passthrough Entities: Hearings on H.R. 1658, H.R. 2571, H.R. 3397, H.R. 4448 Before the Subcomm. on Select Revenue Measures of the House Comm. on Ways and Means, 99th Cong., 2d Sess. 194 (1986) [hereinafter *Passthrough Entity Hearings*] (statement of Richard M. Reilly). See *id.* at 105 (statement of R. Donald Turlington).

¹⁷⁷ See *id.* at 116-17, 135 (statement of Dennis E. Ross, Tax Legislative Counsel, U.S. Dep't of Treas.).

However, if the reference to "passive entity" in the quoted Conference Committee Report¹⁷⁸ is intended to mean that the short-short rule assures that mutual funds will not engage in business activities, then the short-short rule is redundant. That requirement is already addressed by section 851(b)(2) which requires that at least 90 percent of the fund's income be derived from "dividends, interest, payments with respect to securities loans . . . and gains from the sale or other disposition of stock or securities."¹⁷⁹ Trading in securities has historically not been viewed as an active trade or business.¹⁸⁰ For example, while tax-exempt organizations are subject to tax on "unrelated business taxable income,"¹⁸¹ gains from trading securities are exempt from taxation regardless of the extent of the activity¹⁸² because Congress viewed securities trading as essentially passive in character.¹⁸³ Similarly, the trading of securities is not treated as an active trade or business for purposes of section 355 of the Code, and income from trading securities is treated as "passive" income for S corporations which are taxed as flow-through entities under Subchapter S of the Code.¹⁸⁴

Moreover, the Code treats all other flow-through entities differently from mutual funds. For example, S corporations and partnerships are not subject to any restrictions on trading securities. And section 584 of the Code and the regulations thereunder which permit a bank to commingle and invest funds of various trusts without creating a separate taxable entity impose no restrictions on the bank's trading activities with respect to the commingled funds. Similarly, tax-exempt institutions, perhaps the greatest beneficiary of tax preferences, are not subject to such a restriction.

¹⁷⁸ *Supra* text accompanying note 174.

¹⁷⁹ I.R.C. § 851(b)(2).

¹⁸⁰ See, e.g., *Higgins v. Commissioner*, 312 U.S. 212 (1941) (Court ruled that taxpayers management of his investment portfolio did not constitute a "trade or business" under the predecessor of section 162(a)); *Main Line Distribs., Inc. v. Commissioner*, 321 F.2d 562 (6th Cir. 1963) (taxpayer was not engaged in business of trading in securities for purposes of section 162); *Passthrough Entity Hearings*, *supra* note 176, at 133. But see *Commissioner v. Nubar*, 185 F.2d 584, 588 (4th Cir. 1950) (extensive trading of securities is a trade or business under statutory predecessor of I.R.C. § 871, dealing with non-resident aliens).

¹⁸¹ I.R.C. § 512(b).

¹⁸² See *Passthrough Entity Hearings*, *supra* note 176, at 135. One exception to this rule is for gain arising from securities whose purchase was debt financed. See I.R.C. § 514.

¹⁸³ See H.R. Rep. No. 2319, 81st Cong., 2d Sess. 38, reprinted in 1950-2 C.B. 380, 409; S. Rep. No. 2375, 81st Cong., 2d Sess. 30-31, reprinted in 1950-2 C.B. 483, 506.

¹⁸⁴ See *Passthrough Entity Hearings*, *supra* note 176, at 135.

The disparity of treatment between tax-exempt institutions and mutual funds is a significant anomaly. If a valid concern of tax policy is to minimize short-term trading, then the largest players in the capital markets—pension funds and university endowments—which are tax-exempt, should be subject to the same restriction. Because of the distortion to the markets created by the holding period requirement, it is preferable that the short-short rule be repealed. Indeed, it is ironic that section 851(a)(1) of the Code requires that the mutual fund be registered with the SEC under the Investment Company Act of 1940, as amended.¹⁸⁵ The Investment Company Act already has several provisions which are intended to protect stockholders from the excesses of management.¹⁸⁶ The short-short rule actually diminishes rather than enhances the welfare of mutual fund shareholders, and, therefore, in effect conflicts with the goal of the Investment Company Act to protect stockholders.

Thus, the rationales advanced in support of the short-short rule cannot withstand scrutiny, and the costs to societal welfare of the restrictions imposed by the short-short rule are significant. The lack of any persuasive rationale and the existence of significant societal costs argue for the repeal of the short-short rule.

VII. CONCLUSION AND FUTURE DIRECTIONS

This article has suggested that holding period requirements are an inappropriate method to curb speculation. If the stock market is rational, holding period requirements distort investment decisions and decrease societal welfare. If, on the other hand, stock markets are irrational, holding period requirements can still decrease societal welfare. Thus, the preference for long-term capital gains should not be reenacted if the primary purpose for its reenactment is to curb speculation. Similarly, the short-short rule

¹⁸⁵ 15 U.S.C. §§ 80a-1 - 80b-2 (1982 & Supp. 1986).

¹⁸⁶ See, e.g., 15 U.S.C.A. § 80a-9 (West 1981 & Supp. 1988) (prohibiting persons convicted of felonies or misdemeanors arising from securities transactions from serving as an officer, employee or investment advisor of a mutual fund); 15 U.S.C.A. § 80a-10a (West 1981) (requiring disinterested directors); 15 U.S.C.A. § 80a-1(b) (West 1981) (imposing fiduciary duties on directors of funds). Moreover, excessive trading of a mutual fund's portfolio which had the effect of enriching a mutual fund's investment advisor was found to violate § 17(a) of the Securities Act of 1933, 15 U.S.C.A. § 77(y)(a) (West 1981). First Multifund Advisory Corp., [1982-83 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 83,313 (Dec. 30, 1982).

should be repealed.

This does not mean, however, that we should abandon consideration of other methods for employing the tax code to impact investor behavior. Strong evidence exists that the stock market overreacts to negative news and is influenced by irrational behavior.¹⁸⁷ Some mechanism may be appropriate, therefore, which would encourage investors to pause before they trade in reaction to negative news. Perhaps such a mechanism will result from further research and analysis of this issue.¹⁸⁸

¹⁸⁷ See *supra* text accompanying notes 119-124.

¹⁸⁸ One mechanism worthy of further consideration is a stock transfer tax. Berkowitz and Logue have suggested that the increase in short-term trading by institutions has been caused by the decrease in transaction costs associated with trading activities. Berkowitz & Logue, *The Portfolio Turnover Explosion Explored*, 13 *J. Portfolio Mgmt.* 38, 42-44 (Spring 1987). A transfer tax would increase transaction costs and perhaps, as a result, reduce portfolio churning. However, such a tax could also have several negative effects. The tax would probably increase the cost of capital to securities issuers. And this increased cost could send issuers overseas to avoid the tax, thereby weakening domestic capital markets. Consequently, more study and careful analysis is needed before a definitive recommendation can be made.

