ECONOMICS AND THE ASSESSMENT OF DISCLOSURE REQUIREMENTS

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1. Introduction

Securities markets are becoming increasingly international and there is a growing awareness of the differences between and similarities of the various national markets. There is also a growing awareness of the U.S. standards of disclosure and a number of countries are considering more rigorous disclosure standards for their own markets. It is only natural that they examine the U.S. pattern.

In any such examination two important questions must be considered. First, can a regulatory structure, such as prevails in the U.S., be transported to another culture? Second, how successful has the U.S. regulatory structure been in its own environment? Consideration of the first question is beyond the scope of this paper. Consideration of the second question is undertaken by a review of the attempts of economists to evaluate the impact of the U.S. disclosure regime on its economy.

In general, in order to make such an evaluation, economists look at the capital market scene before and after the introduction of the disclosure regime, but the “after” is an evolving pattern. In the U.S., there is consideration of some retreat from the requirements that have evolved.

Since the passage of the Securities Act of 1933 (“Securities Act”) and the Securities Exchange Act of 1934 (“Exchange Act”) and the subsequent amendments, the U.S. equity securities markets have operated in a regulatory environment that has sought to elicit on an increasingly current basis all material facts about the issuers of securities. In recent years the merits of these regulations have become the subject of considerable debate. The controversy may be said to have been initiated by Stigler 1 who questioned the benefits of the disclosure requirements of the Securities Act. The attack has been carried forward primarily by Benston. 2 The principal defender of the legislation has been Friend, either singly 3 or in collaboration with associates. 4

The preponderance of evidence suggests that disclosure has improved the allocation of resources, but the process has benefited some investors at the expense of others. Possessors of potentially valuable information have been forced to share it

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with others and thus forego its value. Economists have no means of judging the relative merits of two distributions of wealth and therefore cannot unequivocally determine whether the economy is better off as a consequence of the disclosure regime. Accountants rather than economists have addressed themselves to the question of whether certain specific items of information have affected the investor, but given that there is an effect, neither group can tell us which resulting distribution of wealth is better. Hence, the light economists can cast on the optimality of a specific set of disclosure requirements is limited. Nevertheless, in the U.S. there seems to be particular sympathy for the unsophisticated investors. 5 To the extent that political sympathies do in fact lie with that group, economists can legitimately extrapolate from the impact of the disclosure pattern on the allocation of resources to the conclusion that that pattern appears to have been useful.

In the remainder of this paper, I shall examine some of the shortcomings of economic analysis in evaluating disclosure regulations, explore some alternative mechanisms for providing investors with optimum information, present the major economic controversy over disclosure, and assess the arguments. While this paper is essentially an evaluation of the economic debate, some consideration of related accounting questions is inevitable.

2. The methodology of economists

The allocational efficiency of economic mechanisms is one of the principal concerns of economists. In a world of certainty, allocational efficiency requires that resources be equally productive in all industries at the margin. Resource allocation may be improved if investment in one industry is capable of earning a higher rate of return than in another. When that is the case, the shift of resources from the industry earning the smaller return to the other obviously increases the total productivity of the economy's resources.

In a world of uncertainty, the simple equal return rule no longer holds. Uncertainty requires that risky industries provide a greater return than safe industries and allocational mechanisms must accomplish that result. Indeed, industries must earn returns commensurate with their risks and equally risky uses of resources should earn the same return.

Returns on equity securities are essentially derivative from the returns on the underlying resources. The investors' task is to assess the probability distributions of future returns and invest in those securities whose assessed distributions most suit their risk preferences. Since stockholders are free to shift to any stock they want, the return they require on new issues must be at least equal to the return on the options available to them, i.e., on stocks outstanding. For outstanding stocks, they are willing to pay only enough to yield returns commensurate with the underlying risks. Issuers of new stock must offer prospects of returns that are comparable. The firms which have the opportunities to invest in the most productive assets are able
to offer stocks to investors on the most attractive terms. Thus the market, if it is properly informed, will allocate resources to the most productive uses. If the returns on the equity markets are not commensurate with risks, either the returns fail to reflect the productivity of the underlying resources, or the underlying resources are themselves not efficiently allocated. It should not be surprising then that when economists address themselves to the question of the allocational efficiency of the stock market, they should focus on the relationship between returns and risks.

Rates of return are likely to get distorted in markets in which information is inadequate or is tainted (in the sense that fraud is being perpetrated). Both inadequate information and fraud increase the difficulties of adequately assessing the distribution of future returns. Hence, economists, in evaluating the impact of disclosure requirements on allocational efficiency, also focus on the relation of returns and risks of equities.

Strictly speaking, allocations are affected by comparisons of anticipated outcomes. Unfortunately, these anticipations cannot be measured, certainly not retrospectively. Tests of efficiency are, nevertheless retrospective rather than prospective. This is justified on the ground that, in the absence of downright deceit, investors correctly anticipate outcomes on the average. If this were not so, anticipations would be of little value in decision making.6

Since rates of return change over time, tests of the impact of disclosure rules must disentangle these temporal changes from changes due to disclosure. In testing the Securities Act, which requires disclosure for new issues, economists took cognizance of this by comparing returns on new issues with the returns on the secondary market for stocks. The rationale of these tests is based on a number of assumptions, including that (a) management will act in the best interest of the stockholders, and (b) information is immediately and costlessly available to all investors.

In the last decade or so, the theory of securities markets has advanced considerably, and more sophisticated methods than simply dividing stock prices by the value of some contemporaneous market index can be used to eliminate broad market effects on stock returns. Henceforth, we shall refer to the adjusted returns, i.e., the difference between the actual return and the return that can be accounted for by fluctuations in the market as a whole, as the residuals.

3. Some limitations of theory

The economic theory of financial markets advanced considerably in the 1960's and 1970's. The development of the so-called capital asset pricing model ("CAPM")7 provided researchers with a useful tool for more sophisticated explorations of financial market phenomena than had hitherto been possible. These explorations have resulted in the "efficient market hypothesis" which posits that
information and all its implications are rapidly reflected in stock prices. It is generally contended that this process is so rapid that information in the public domain cannot be used to develop trading strategies which will yield profits that exceed returns commensurate with the risks taken by more than the trading costs. However, markets that are informationally efficient are not necessarily allocationally efficient. Prices may reflect erroneous information as easily and effectively as correct information.

Furthermore, the CAPM provides us with no theory of the mechanism of the impact of information on the prices. Financial theory hypothesizes that stock prices depend on expected earnings, and changes in expected earnings will cause investors to buy or sell securities, as the case may be, thus forcing prices up or down. It provides no hypothesis regarding the flow of events from a development that is of interest to investors, to the formation of new earnings expectations, to the investor response to those new expectations, to the consequent change in the price of the stock in question. Without such a model, it is difficult to design conclusive tests of the effect of the release of new information on prices.

The link between disclosure and allocational efficiency is the effect of disclosed information on the behavior of investors. The dissemination of material information is required. Since information is presumably material if the investor responds to it, one examines the behavior of investors, if not directly, at least as reflected in the price responses to that behavior. Unfortunately, such investigations are not easy. Assume for the moment that investors extrapolate from historical reports and anticipate the level of earnings of a corporation. On the basis of these anticipations, they decide that the stock price is too low (high) and therefore buy (sell). The new demand (supply) will drive the stock price to a level consistent with the anticipated earnings. Subsequently, earnings are reported. In the case of some corporations, investors will have been unduly pessimistic and the announcement will cause them to revise upward their estimate of the stock's worth and act accordingly until the stock is no longer underpriced. In the case of other corporations, they will have been unduly optimistic and will initiate trading that will drive the prices down. If investors' errors in anticipations were randomly distributed with mean zero, the subsequent price changes would be randomly distributed around mean zero and a simple examination of the price changes at the time of information releases would suggest that the information contained nothing new. More subtle tests are needed; to design such tests, more sophisticated models of the impact of information on stock prices must be developed.

4. Alternative disclosure mechanisms

The demand for information has mushroomed. This development is in part the consequence of the rise of "peoples' capitalism" that was nurtured by the New York Stock Exchange under the leadership of Keith Funston and which resulted in
the increase of the population of U.S. stockholders to more than 30 million. In part, it stemmed from the institutionalization of the stock market and the rise of the money managers, and finally in part from the fixed brokerage commission rate system.

The increased interest of the investing public was paralleled by the growth in the number of account executives who pressed for reports that could be used to interest clients in trading. Often the research was retreading what others had produced, but there was also substantial pressure for something “new”. The substantial profit margin in the commissions on trading out of managed portfolios contributed to a demand for value by money managers and competition for the attention of these managers by the research departments of brokerage houses. The academic critique of the performance of money managers led to greater and greater efforts to find bargains.

Unfortunately, the demand for disclosure is almost insatiable when its cost to the user is almost nil, as indeed it is if the corporation is forced to disseminate the information by regulation. The cost of that information is borne by the stockholders. However, regulatory enforcement of disclosure is but one way in which information can be generated.

Stigler and Benston, who may be said to represent the libertarian school, have a profound faith in the pricing mechanism of a free market. They argue that management will voluntarily provide all information that has a value to stockholders in excess of marginal cost. If that argument is sound, forced disclosure should reduce the return on the stock because of additional costs of disclosing, unless the additional costs are really too small to be noticed. It is not clear that in the market for information the pricing system is as effective as Stigler and Benston would suppose. Benston, furthermore, never specifies how management knows the value of information that it is supposed to be balancing against the cost. In fact, there is really nothing in the free market system that will induce management to supply the optimal amount of information. It defies experience to assume that the stockholders will overthrow the management if the information set is less than optimal.

It is difficult to reconcile their altruistic view of management with the host of accounting devices used by firms to make their enterprises more, not less, difficult to evaluate and with the resistance to accounting reforms that would provide a clearer picture of the enterprise to the stockholder and the prospective investor. Among such devices are leasing to hide debt, the use of pooling of interests in an acquisition transaction to achieve a desired profile of earnings, and reporting the entire markup on installment sales as current profit even though the installments may stretch over years and the sale may abort before all payments are made. Nor is the view easy to reconcile with the failure of the Accounting Principles Board as a vehicle for determining generally acceptable principles of accounting.

Information is now considered a public good in the sense that if A is provided with or sold information, the amount available for B is undiminished even though the value may be diminished. It is practically impossible to provide A with
the exclusive use of the information. Similarly, it is not practical to confine information to stockholders. Hence, stockholders cannot capture the entire value of the information. Users of information will attempt to get as much of a free ride as possible and will hide how highly they value it. Private producers of information will lack the motivation to produce as much as the social group might want. Since the market mechanism is not generally effective in the production of public goods, government participation is necessary.

Even if information were not a public good, Benston's position (i.e., that management will voluntarily provide all information that has value to stockholders in excess of marginal cost) would be valid only if maximizing profits were management's primary goal. There is no consensus that this is so. Some have viewed management as being concerned with: personal motives; organizational objectives that result from the interaction of the organization's participants; long-run survival; maximizing sales without necessarily maximizing profits; and making merely satisfactory profits. With any of these motives, the incentive to supply the stockholders with information is diminished and the drive to optimize the flow of information vanishes.

Professor Baruch Lev has advanced a different view of the market forces that generate information. He starts with the assumption common to all modern financial theory, namely, that investors attempt to assess the probability distributions of future returns on the securities they consider. Their ability to assess these returns is dependent on the information that is available. If one corporation releases information that is more useful to investors in assessing distributions than other corporations competing for the investors' attention, all other things being equal, the investors will find investing in that corporation more to their liking. Lev believes that as long as corporations depend on the equity market for funds, they will design their information output to attract investors. This means that they must generate information that is as useful as the information presented by their competitors in the equity market.

This theory has the merit of identifying motivation. In it, management depends upon the equity markets for funds. Corporations compete for the attention of investors and do so by adjusting their information systems to investor preferences. But this is a difficult, if not impossible, task when corporations attempt to attract wide groups of investors, as indeed they seem to do. As Lev himself notes, "It will be impossible to design optimal information systems which satisfy the preferences of wide diverse groups of users." Even if corporations could tailor their information systems to the preferences of their stockholders, since diverse investors have diverse preferences, management would have considerable difficulty determining those preferences. The make-up of investor portfolios is the result of investor assessment of future distributions of returns, of their need for cash flows and hence preferences for payout patterns, of their need for diversification and of their assessments of the market, as much as of their information system preferences. Under the circumstances, it is not clear how a corporation can identify the information systems preferences of investors.

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Even if corporations did attempt to supply information to attract investors, there is some question about how finely tuned the mechanism might be. Again, although in the long run investor credibility must be retained, Lev's system supplies no consistent motivation to disclose potential fraud, manipulation, or conflict of interest.

Recent controversies about bank disclosure cast light on both the Stigler-Benston and the Lev approaches. Generally, the banks in the U.S. have resisted disclosing as much information as the Securities and Exchange Commission ("SEC") has sought. The resistance, however, has been expressed in terms of concern for the creditors of the banks, not for their stockholders. The Bank of America recently announced its intention to disclose hitherto undisclosed information. The bank's announcement was greeted with hostility by the banking community. The interesting aspect of that reaction was that (a) the objecting banks were reluctant to release information that at least one major bank felt the stockholders should have, (b) they clearly believed that if the Bank of America disclosed that type of information, they would be forced to release comparable information, and (c) the Bank of America was not proposing to disclose much that had not been previously available. To be sure, while this evidence is anecdotal, it provides little support for Benston's position and is generally supportive of Lev's position. Its relevance to the need for regulatory disclosure requirements, however, cannot be established without knowing whether the Bank of America would have decided to release the information in a regulatory milieu in which disclosure was not emphasized.

We may be skeptical of the efficiency of the free market and the Lev processes in generating the optimal amount of information. On the other hand, the regulatory scheme, since it is subject to the political process, may produce redundancy. As we noted, the demand for disclosure is almost insatiable when its cost to the user is almost nil.

There is fairly general agreement that there is indeed redundancy. For example, investigation of financial ratios suggests that many, in isolation, supply important information but when looked at as a set, some members of the set contribute little that is not already contributed by other members of the set. This view of redundancy, however, overlooks the possibility that the redundant information might play a confirmatory role and make the task of manipulators more difficult. Furthermore, only a regulatory scheme will provide significant protection against manipulation and fraud. In neither of the worlds envisaged by Stigler-Benston and Lev is there any motivation for management to reveal any of their own manipulative schemes or fraud. The question then becomes whether the general laws against fraud are adequate deterrents; if not, are the additional provisions of the Securities Act and the Exchange Act needed and worth the additional cost. While this is an area that has not been adequately researched, some empirical work has been done.

When fraud is undeterred, it is possible to measure its cost to society and the possible benefits to be derived from any particular outlay to deter it. But when the outlays have been made and years have passed and the environment has changed, it
is no longer easy to determine how much damage would have been done in a less-sheltered environment.

The economist tends to view as insignificant phenomena that have small probabilities of occurring. By the very nature of his profession, the lawyer has aberrations forced upon his attention. To him these loom large. Cheated investors may be a small percent of the investment population, but a small percent of a large number is still large. Even though the number is large, it may constitute an insignificant portion of the population. It is hazardous to infer from the lack of statistical significance that the benefits of reducing abuses do not outweigh the costs. From a comparative point of view, one cannot dismiss the possibility that increasing the rigor of the regulatory structures in other countries would produce net benefits.

Since there is an established regulatory mechanism for requiring disclosure on the U.S. scene, as a practical matter the burden of proof is upon those who maintain that it is dispensable in the U.S. A convincing case has not yet been made. Whether the regulatory pattern that has existed in the U.S. for the last forty years has been useful can only be determined by examining empirical evidence. Even here, we find that the cases pro and con regulation are ambiguous.

5. Disclosure and new issues

The disclosure requirements of the Securities Act relate to new issues. Supporters of those requirements, such as Friend, expect that rates of return on new issues will be higher under a disclosure pattern because disclosure eliminates much of the fraud that might be perpetrated in the sale of new issues and because the disclosed information enables investors to improve their appraisal of issuers and to avoid being overcharged.\(^{18}\) As a consequence, those who support regulation believe that it reduces the dispersion of the rates of return relative to that which prevailed in the era before disclosure was required.

When investors lose money because of inadequate and misleading information, manipulation of markets and violations of fiduciary responsibilities, their funds are obviously not flowing to the industries which are likely to be most productive, and the consequent flow of resources is misdirected. A number of government investigations indicate that experience since the advent of the SEC ("post-SEC") with respect to this type of phenomenon has been better than the pre-SEC experience.\(^{19}\) To be sure, no one has attempted to quantify the difference in experience to test whether the differences were statistically significant or due to chance. It is hard to see how that means much more than that the case for disclosure has not been irrefutably established. The various quantitative tests undertaken have included a comparison of the market experience of small issues just above and just below the critical $300,000 size which, at the time (1958–63), was the dividing line between issues which did and did not have to be registered under the Securities Act.\(^{20}\) To maintain comparability, Friend and Herman included only primary non-
rights offerings. They found that price performance in the after-market of the small registered issues (adjusted for changes in the market) was superior to that of the unregistered issues. Indeed, the price performance of the small registered issues was not much different from the price performance of the larger issues.

A second test involved a comparison of the price performance of large new issues in the pre- and post-SEC periods.\(^{21}\) Initially, the price performance in the five-year periods subsequent to flotations in 1923–28 and 1949–55 were compared. The price changes were standardized by adjusting for the price changes in outstanding issues, the measure of which was Standard and Poor’s Industrial Index. There are too many uncontrolled variables for this to be considered a rigorous test, but the results are of some interest.

Stigler\(^{22}\) alleged that the evidence of his study supported his anti-disclosure hypothesis. However, his argument was substantially invalidated by a large number of data errors, virtually all of which biased the results in favor of his hypothesis.\(^{23}\)

Friend and Herman found that, in both the pre- and post-SEC periods, the after-market performance of new issues was inferior to the concurrent performance of the market, but the performance of the post-SEC new issues was closer to the market’s performance and, as a result, superior to the performance of the pre-SEC new issues.

Friend and Herman extended the comparison by adding to the post-SEC new issues the flotations in 1958 and the first half of 1959 in the same size categories used by Stigler. They also added small issues for 1923 and the first halves of 1928 and 1958. These additions did not qualitatively change the results.

In spite of the fact that the Friend-Herman case substantially rested on a re-examination of Stigler’s own statistical results after correcting the data errors, Stigler challenged the Friend-Herman refutation of his case on the ground that they had included 1928 as the terminal date for the pre-SEC data.

Since the tests basically involved a comparison of the new issue performance with the contemporaneous performance of the market, Stigler’s contention that 1928 was not an appropriate terminal date because of the way the market behaved that year has no merit. Stigler noted that if the data were terminated in 1927, the statistical significance of the superior performance in the post-SEC period disappeared substantially. Nevertheless, for most of the time periods examined, the post-SEC period performance was better, even if the margin was not statistically significant. The evidence at least suggests improved performance.

The Friend and Herman study is buttressed by Ibbotson’s study of the price performance of registered underwritten unseasoned common stock issues of 1960–69.\(^{24}\) One can infer from that study that registered unseasoned issues earned higher returns relative to the market in the post-SEC period than did comparable issues in the pre-SEC period.

A further test involved comparing (1) the correlation between the issue price and the price in the following year with (2) the average correlation between prices in adjacent years for both the pre- and post-SEC periods. In all cases prices were
adjusted by a market index. This analysis presumes that stock prices will reflect the basic productivity of the underlying assets if they are adjusted for market movements. Since the basic productivity in any year is itself correlated with productivity in adjacent years, adjusted stock prices in adjacent years should also be correlated. If new issue prices do not reflect the productivity of the underlying assets, the correlations of adjacent year prices involving new issue prices will be lower than other adjacent year correlations. The fact that the correlation involving issue price was significantly lower than the other adjacent year correlation in the pre-SEC era, but identical or higher in the post-SEC period, suggests the change in the information flow resulting from the disclosure requirements brought prices of new issues more into line with the productivity of the underlying assets.

If the stock market is doing its job of allocating resources properly, the stocks of fund-raising corporations should perform as well as or better than the market as a whole. As we have seen, while the various studies did not show that this was invariably the case, the preponderance of evidence does indicate that the registered issues did generally earn higher returns relative to the market than either issues that were unregistered because they were offered in the pre-SEC days, or post-SEC issues that were unregistered because they were less than $300,000. Presumably, therefore, the allocational efficiency has improved.

If the disclosed information improved investors' ability to appraise corporations, the variance of price performance should be less in the post-SEC period. The examination of that variance in the pre- and post-SEC periods showed that the desired results of disclosure were being realized. Friend and Herman interpreted this reduction in variance as a reduction of risk attributable to disclosure and were taken to task for doing so by Benston. He contended that the appropriate measure of risk is a measure of the sensitivity of a stock's price performance to that of the market. Benston based this criticism on a recently developed, widely accepted theory of capital markets which contends that in a highly diversified portfolio much of the variability of one stock's "price relative" (i.e., ratio of price in one period to the price in the preceding period) is offset by the variability of others (i.e., some stocks will do better than expected and others poorer than expected, thus offsetting each other), except insofar as the price relatives are affected by a common force such as the general health of the economy. A market sensitivity index supplies a measure of the variability of price relatives that survives the offsetting effect. However, Friend points out that in another study in which he participated, he and his colleagues found that most individuals hold portfolios that are not at all well diversified. As a consequence, the examination of variances is much more appropriate than Benston would have us believe.

Only in connection with new issues has the cost side of the cost: benefit analysis been studied. In a study of underwriting compensation I made several years ago, I pointed out that "in spite of the ambiguity with which...intertemporal comparisons are fraught, there is evidence that underwriting spreads declined during at least the first fifteen or sixteen years of the SEC's existence". Friend and Herman
point out that the upward movement in the other expenses was a fraction of 1% and that the cost of SEC registration activities was probably under 1/10 of 1% of the gross proceeds. In view of the rather massive securities abuses of the pre-SEC period as compared with the post-SEC period that have been documented in various government studies, it is unlikely that the additional expenses incurred because of the disclosure requirements for new issues are more than a fraction of the benefits generated by disclosure.

6. The effect of disclosure on the prices of outstanding stock

Information costs money to generate and distribute. Not all information is equally useful for appraising a firm's outlook, nor can each piece of information be judged on its own merits. Sometimes, as in a jigsaw puzzle, an innocuous-looking piece completes the picture. The effect of disclosure rules must therefore be judged on the basis of the usefulness of the information generated and the costs that are incurred as a consequence.

Anti-disclosure economists maintain that investors or potential investors who want more information than management is willing to disclose voluntarily are presumably free to buy it in the market place. It is not made clear just how the undisclosed information finds its way to the market place to be bought. Nor is there any attempt to demonstrate that the total cost of the information produced would actually be reduced.

Both pro- and anti-disclosure economists have marshalled a substantial body of evidence to prove their respective cases. To a surprisingly large extent, the differences in conclusions stem from differences in the interpretation of the same body of evidence. These differences in interpretation reflect the differences in the philosophic outlook and attitudes of the researchers towards securities regulation. To members of the libertarian school of economics, government regulation is anathema. Friend and his associates do not have this aversion and generally expected to find the evidence indicating that disclosure has been helpful. My own philosophical inclination is similar to Friend's. 29

The evidence is inconclusive. There has been no unequivocal demonstration that disclosure has been either helpful or excessively costly. The preponderance of evidence, however, seems more supportive of the Friend position than of the libertarian position.

The literature on the consequences of the additional disclosure requirements of the Exchange Act, which affect outstanding stock, is essentially a debate between Benston and Friend. The case made by Benston has little merit.

Quite correctly Benston argues that if information is to be useful, it must affect either return or risk. Also correctly, Benston focuses on that portion of the return that cannot be attributed to broad market movements, i.e., the residuals. 30

One cannot logically deduce how the average residuals of corporations are
affected by forced disclosure. However, most economists agree that if disclosure were effective, both the variance of the residuals and the measure of the market sensitivity of the rates of return of the corporations which had been forced to disclose should be smaller after the disclosure legislation than before, relative to the same statistics for the corporations that had voluntarily disclosed information. The rationale for the change in market sensitivity is very involved and will not be dealt with here. The rationale for the reduction in the spread of residuals is simple: theoretically the more (accurate) information investors have, the better able they are to appraise corporations. Accurate information minimizes unwarranted drastic shifts in the expected profitability of corporations. It minimizes the reliance on rumor and reduces the scope of manipulation.

To assess the effect of forcing regular disclosure, not just the episodic disclosure associated with new issues, ideally one should compare the returns, before and after the adoption of the Exchange Act, of the stocks of two groups of corporations, one that had voluntarily disclosed all the information required by the Act before it was passed, and one that had been less liberal in its disclosure. It is doubtful that two such groups can be found.

Benston's early attack on the Exchange Act did not utilize a comparison of corporations which had been forced to disclose with those that had voluntarily disclosed information required by the Act prior to its passage. In his study, Benston investigated the reflection in stock prices of deviations from expectations of reported net sales, cash flows, net operating income, and “clean surplus”, which he defined as net income after all deductions and additions from the values the market presumably anticipated. He examined these effects one at a time. The anticipated values were estimated by a variety of techniques. He found some positive effects. This finding is consistent with a subsequent report by Martin that his own empirical evidence indicated that annual accounting data were relevant for investment decisions. Martin noted not only that his own evidence complemented other evidence, but that his “study uniquely provides an explicit test of the usefulness of a series of accounting variables taken together” (emphasis added). Martin's findings were consistent with the subsequent findings of Gonedes, who noted:

The results of our tests...are consistent with the statement that special accounting items convey information pertinent to establishing firms' equilibrium values. Also, our results are not consistent with the statement that no effect is associated with the disaggregation represented by the separate disclosure treatment accorded to special accounting items. . . .

Friend and Westerfield object to the fact that Benston “considers not too relevant for stock price knowledge about changes in financial variables, in spite of the fact that he finds an increase of 100 percent in the annual rate of net sales is associated with an increase in price of 10.4 percent in the month of the announcement”, and in spite of the fact that Benston found the responsiveness of price changes to unexpected changes in several financial variables, including sales,
statistically significant.\textsuperscript{37} There is no logical justification for Benston's rejection of his statistical findings as economically insignificant. Not only does he overlook the fact that his measures of expectations are subject to error, but his measurement of the effect of unexpected changes on price is biased towards zero. Friend and Westerfield underestimated the relationship Benston found. It does not take a doubling of annual rate of net sales to produce a 10.4\% price change, it takes a doubling of the error in forecast. Furthermore, we must dismiss his rejoinder to the criticism of his 1973 study by Friend and Westerfield, in which he denied that Martin reaches the conclusion quoted above and claimed that Gonedes, in an unpublished 1973 paper, supports his decision not to examine the joint effect of accounting information.\textsuperscript{38} Friend and Westerfield took Benston to task for ignoring joint effects.

In his 1973 study, Benston selected two groups of firms which he distinguished solely on the basis of whether they reported sales in the pre-SEC period. He referred to these as the disclosure (D) and nondisclosure (N) firms. He examined the differential behavior of the residuals, standard deviation\textsuperscript{39} of the residuals, and the market sensitivity of the stocks. Benston found that the market sensitivity of the N group did not change relative to that of the D firms in a manner supportive of the pro-regulation economists. However, since there is no \textit{a priori} reason to expect the disclosure or non-disclosure of sales data to affect market sensitivity and certainly there is no \textit{a priori} reason to expect that sensitivity to be affected in a particular direction, there was really no point in testing for differential changes between the two types of firms. Furthermore, as Friend and Westerfield note in questioning the use of the sales variable to distinguish the two types of firms,

Net income would seem to be the more theoretically relevant variable and in fact is the more consistently significant in its effect on price according to his earlier test . . . . It is interesting therefore that (with one possible exception) all of the 193 stocks which did not disclose sales did disclose net income as well as balance sheet and other financial data, so that Benston's . . . test does not distinguish between non-disclosure and disclosure firms, but between less and more disclosure firms . . . .\textsuperscript{40} This is especially so in the tests for market sensitivity. It has been shown that sensitivity can be predicted from certain balance sheet data which most of the N firms reported.\textsuperscript{41}

The evidence provided by the spread of the residuals does support Benston's hypothesis that the D and N firms were not differentially affected by the Exchange Act. However, in view of the lack of significant differentiation between the D and N firms, that test does not cast much light on the merits of the Exchange Act disclosure requirements. More important, Benston does not appear to have noticed that the post-legislation spread of the residuals is distinctly different from the pre-legislation spread for both groups of firms and that the differences are supportive of the hypothesis that the Exchange Act did have an effect.
7. Conclusion

While there is hardly consensus, the preponderance of evidence does suggest that Friend and his associates are essentially correct that the disclosure regime which grew out of the Securities Act and the Exchange Act improved investors' assessments of the potential productivity of alternative uses of capital resources. However, while the defenders of the regulatory pattern consider the gains from these improvements to have been substantial, they have no measure of the gains and the pattern is certainly not costless. Thus, they cannot compare the costs and benefits directly. Friend et al. have shown, however, that the cost has not been very large. They estimated that the costs added to common stock flotations in the period they examined could not have been as much as 2% of gross proceeds.

This inability to undertake cost-benefit analysis at the aggregate level is matched by an inability to establish that the regime was beneficial or desirable, since one result of effective disclosure is a redistribution of wealth. The mere fact that the monetary gains of the winners (W) exceed the monetary losses of the losers (L) is not in itself proof that society is better off. There is no way of comparing the impact of the gains on the well-being of W with the impact of the losses on the well-being of L. Only if enough of the gains were actually transferred back to L, so that L were as well-off financially with the change as without and W still retained some gains, could economists then state unequivocally that economic well-being had improved. Otherwise, economists can only make ethical or political judgments whether the wealth redistribution, and therefore the regulatory pattern, was desirable. But there is nothing in the tool-kit of economists that makes their ethical judgments more valid than judgments of informed non-economists.

This problem arises not only in the Friend—Benston controversy but also in the panorama of studies in which accountants have used economic analysis to explore a number of controversial propositions. They have attempted to evaluate the information content of (a) annual accounting numbers, (b) interim earnings reports, and (c) corporate forecasts, and found, though not without dissent, that the information was indeed useful. They have explored the information content of time series behavior of earnings and the significance of accounting alternatives with negative results.

The evaluation of any specific disclosure regulation again requires an appreciation of the difference between the effects of that regulation and its desirability. Unless there are some effects from the requirement to report sales by product line, for example, the requirement is hardly desirable since it does involve some costs. Economists can cast light on whether there are such effects. But given that there are some effects on stock prices, as long as the consequence of the regulation is that some investors who would not otherwise have sold do sell and some buy who would not otherwise have bought, some investors are made better off at the expense of others. The desirability of that wealth redistribution is a political question and the desirability of the regulation cannot be evaluated by economic analysis alone.
Thus, when questions of expanding or contracting regulations arise, economists can contribute to the decision process, but their contribution must be limited. They can explore whether existing regulations have affected the investment process and can reason whether suggested regulations will affect that process, but they cannot establish the desirability of those changes.

Legislators may misconceive the relationship between the powers they bestow on an agency and the objectives they enunciate. Similarly, an agency can misconceive the relationship between the measures it promulgates and its objectives. A critique and an analysis of the techniques used to achieve the objectives constitutes a legitimate exercise in economic analysis. Even though the merits of a particular disclosure requirement are a political question, that question can hardly be addressed intelligently without some analysis of the effects of the requirement.

Unfortunately, one of the major difficulties in analysis is that the disclosures are not the only factors affecting stock prices, and the others have to be controlled as best as one can. Among other things, the researcher often has to contend with the unmeasurable expectations of the investor. Furthermore, statistical-economic analysis has become very sophisticated and is always subject to a morass of possible methodological pitfalls. Indeed, one may enunciate a rule that whenever an empirical analysis is used as input to the solution of a political question, opponents of the solution will always find that a methodological error has been made. Nevertheless, typically the economist is better able to handle these many difficulties than others.

One must, of course, distinguish between studies which examine simply whether stock prices were affected and studies which examine whether or not aggregate output was likely to be affected. In the first case, one group may benefit at the expense of another without any net benefit (net benefit meaning that compensation of L would still have left W better off). In the second, there could have been a net benefit, though compensation has not actually been made. When the income and wealth redistribution effects are consistent with professed national goals, economists dealing with policy questions tend to conclude, in spite of the gap in the logic, that society does benefit if resource allocation is improved. While, as has been argued, if one insists on absolute rigor, there is little light economists can cast on the desirability of disclosure regulations, if one is willing to accept the prevailing rhetoric, the preponderance of economic evidence suggests that the effect of the disclosure regime in the U.S. has been beneficial.
Notes


Benston also challenged the impact of the disclosure requirements on the fairness of the market. He was not, however, making an examination of ethical considerations. Indeed, as Friend and Westerfield note, "Benston considers a market fair in which corporate insiders make large profits at the expense of other investors so long as this is accomplished quickly." Friend and Westerfield, Required Disclosure and the Stock Market: Comment, 65 Am. Econ. Rev. 467 (1975), at 471. If information is fully disseminated, the chances of a stock being overpriced or underpriced by any particular amount are equal. A market in which this is true of all or most securities is thus fair in the same sense that a game is fair. Fairness in this sense is thus a function of the speed with which information is disseminated. Benston argued that information is disseminated with great speed. This point is not challenged by pro-regulation economists. Friend, Westerfield and others do object, however, to the tendency of some, including Benston, to associate rapid dissemination of information with efficiency. This concept of efficiency, they note, is totally indiscriminate with respect to the accuracy of the information. See first paragraph under the caption "Some Limitations of Theory" infra. They also note that if one tests efficiency by comparing the returns on equally risky portfolios, as Blume and Friend did, there is indeed evidence of an increase in market efficiency since the advent of the Securities and Exchange Commission. Blume and Friend, Risk, Investment Strategy, and Long-Run Rates of Return, 56 Rev. Econ. Stat. 259 (1974).


5 The Objectives Committee of the American Institute of Certified Public Accountants stated: "An objective of financial statements is to serve primarily those users who have limited authority, ability, or resources to obtain information and who rely on financial statements as their principal source of information about an enterprise's economic activities." AICPA Objectives Committee, Objectives of Financial Statements (1973).


8 Recently Jaffe raised the question of whether the decisions in the landmark insider trading cases, Cady Roberts and Texas Gulf Sulphur, had any impact on insider trading. He concluded that "There appeared to be few changes in the characteristics of [insider] trading
attributable to the . . . cases. Only the Texas Gulf Sulphur decision seems to have had even a slight effect on the profitability of insider trading, and there is no evidence of any cumulative effect of the . . . events on profitability. Furthermore, the data do not suggest that the [events] . . . affected the volume of insider trading." Jaffe, The Effect of Regulation Changes on Insider Trading, 5 Bell Econ. and Management Sc. 93 (1974), at 114–115.

Jaffe attributes these results to (1) the relative smallness of the excess rate of return to insiders; (2) the fact that the SEC tends to be on the lookout for major violations only; and (3) the fact that the deterrents are not really very great. Jaffe’s study is an examination of the rate of return officers, directors and ten percent shareholders would have earned by the end of one, two, or eight months. Jaffe did not explore the impact of these cases on the trading of institutions and others operating on insider tips.

Jaffe interprets his findings cautiously. There is certainly not enough evidence to suggest seriously abandonment of the regulation limiting insider trading, and he does not do so. What is fascinating from the point of view of the efficiency of the market in disseminating information is that while insiders could predict price movements in the near future better than in the distant future, the information at their disposal was still affecting prices eight months later, which hardly suggests a rapid impact of information on prices.


10 G. Katona, Psychological Analysis of Economic Behavior (1951); Lev, op. cit. supra n. 9; Leibenstein, Aspects of the x-Effectivity Theory of the Firm, 6 Bell J. Econ. (1975).


12 Rothschild, Price Theory and Oligopoly, 42 Econ. J. 297 (1947).


15 Lev, op. cit. supra n. 9.

16 id. at 5.


18 Friend and others, op. cit. supra n. 3 and n. 4.


20 Friend and Herman, Professor Stigler on Securities Regulation: A Further Comment, 38 J. Bus. 106 (1965).

22 Stigler, op. cit. supra n. 1.
28 Stock Exchange Practices: Hearings Before the Senate Committee on Banking and Currency, 72d and 73d Cong., Parts 1—17 (1933—34) (Pecora Hearings).
29 Indeed, the critique of Benston and Stigler presented here is largely based on the writings of Friend and his associates.
30 See the last paragraph under the caption "The Methodology of Economists" in the text supra for the definition of "residuals".
32 Id. at 39.
34 Id. at 31.
39 The square root of the variance.
40 Friend and Westerfield, op. cit. supra n. 36, at 468.
41 Beaver, Kettler and Scholes, The Association Between Market Determined and Accounting Determined Risk Measures, 45 Accounting Rev. 654 (1970). Friend and Westerfield point out that the N firms disclosed balance sheet items (see the quotation in the text supra). They are not explicit about the extent to which the risk predictors were among the disclosed items.
42 Friend and Herman, op. cit. supra n. 23.
43 Id. at 395.

46 Sharpe, op. cit. supra n. 7.


49 See n. 5, supra, and accompanying text.

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