APPENDIX G

FINANCIAL CONDITION OF BROKER-DEALERS
October 1987

Directorate of Economic and Policy Analysis

HIGHLIGHTS

In order to evaluate the effect of the October market break on broker-dealers' financial condition, we have analyzed the October FOCUS Reports of a sample of 58 NYSE member firms. These firms all carried customer accounts or cleared securities transactions. We have classified the sampled firms into six groups, based on firm size and type of business -- National Full Line Firms, Large Investment Banking Houses, Brokers, Equity Dealers, Debt Dealers, and Other Large Firms. The sample is not at all random, but rather is weighted towards large firms, and to firms specializing in the brokerage and principal businesses. However, the firms in the sample dominate the industry, so the aggregate results of the sample should approximate that of the industry.

Income and Profitability

- The 58 sampled firms lost $1.7 billion in October. These losses exceeded the $1.6 billion in profits earned in the record-setting first quarter.

- The annualized return on equity was -96.1% for the sampled firms in October. If profits in November and December match the average over the past 15 years, the fourth quarter and full-year returns on equity for the sampled firms will be -16.4% and 7.9% respectively. These would be the lowest rates of return since 1974.

- Three out of four of the sampled firms lost money. Debt Dealers were the only firm group to show profits.

- Not unexpectedly, proprietary equity trading was the most important factor behind these losses. The sampled firms reported losses of $1.6 billion in investments and in equity trading, not including the expenses normally associated with these businesses.

- Although transaction activity was at record levels, the agency business was not a source of profits for the sampled firms. The increase in revenues was overwhelmed by losses relating to customer activity. Brokers saw an increase in brokerage-related revenues of $24.8 million in October, relative to an average month in the first three quarters of 1987. However, losses in error accounts and bad debts increased $60.4 million.

- While high-grade debt securities increased in value in October, this increase was small relative to the decline in equity values. And debt securities usually are well hedged. The result was an increase in revenues from trading debt securities of only $86 million (17%) for the sampled firms in October compared to an average month in the first three quarters of 1987.

Financial Integrity

- o Although suffering large losses, the 58 sampled firms came out of October in excellent financial shape. Total capital increased $389.3 million in October, the result of capital infusions by parent companies, other owners, and subordinated lenders. Excess net capital grew by $762.1 million.

- o The capital condition of the National Full Line Firms and the Large Investment Banking Houses were the least affected by the market break. Excess net capital of National Full Line Firms grew by $785 million, while that of Large Investment Banking Houses rose by $357 million. Brokers witnessed a drop of $76 million in their excess net capital, primarily the result of a $62 million increase in unsecured customer receivables. Equity Dealers, who lost $715 million, remained in healthy financial condition, thanks to a strong initial capital base and massive liquidations of equity securities.

- o An analysis of individual firms leads to similar conclusions. About as many of the sampled firms saw an increase in their excess net capital as saw a decrease. And comparing excess net capital to total capital suggests a slight improvement in the capital position of these firms.

- o At some firms, the decline in equity values overwhelmed haircuts, the capital requirement specifically designed to cushion these declines. Fifteen firms had losses trading equities in excess of their haircuts on equities. Ten firms suffered trading losses on all securities in excess of all haircuts.

Operational Condition

- o There was little change in the number and value of aged fails to deliver and receive between September 30 and October 31. We don't know whether this results from the industry's success in accommodating the increased transaction volume or reflects weaknesses in the available data.

- o Losses in error accounts and bad debts -- the expense item which contains "write offs" -- was 644% higher in October relative to its average in the first three quarters of 1987. In October, these losses equalled $314 million, 8.6% of expenses. In an average month in the first three quarters of 1987, this item equalled $42 million, 1.2% of expenses.

- o Unsecured customer receivables were 114% higher on October 31 than they had averaged in the previous three quarters. The increase in these unsecured receivables -- $737 million -- equalled twice the amount already written off in losses in error accounts and bad debts, and was equal to 44% of October losses.

TABLE OF CONTENTS

LIST OF EXHIBITS

I. Introduction

The month of October saw unprecedented market activity and declines in equity values. All major stock indexes witnessed record declines. The Dow Jones Industrials, the S&P 500, and the NASDAQ OTC Composite fell 23.2%, 21.8%, and 27.2% respectively between September 30 and October 30. Conversely, bond prices rose as they became a more attractive investment alternative. For example, the price of the Treasury's 9 3/8s of 2006 (an 18-year maturity) rose 6.4%, while the 8 3/4s of 1993 (a 5-year maturity) rose 3.3%.

These price shifts were accompanied by record transaction activity. October NYSE volume reached 6.1 billion shares, 2 billion above the previous high of 4.1 billion shares in August. Prior to October 1, the record daily share volume on the New York Stock Exchange stood at 302 million shares. 1/ On each of two days, October 19 and 20, share volume exceeded 600 million shares, twice the pre-October record. Seven of the twenty-two trading days in October exceeded this earlier record.

These events had the potential to greatly impair the financial condition of securities firms. Broker-dealers observed a decline in the value of their proprietary equity positions, and suffered losses when some customers walked away from net debit balances. In addition, higher transaction activity threatened the operational condition of firms. On the other hand, the increase in volume generated greater commission revenues, and the value of proprietary positions in debt securities rose, albeit more modestly than the decline in equity prices.

In order to evaluate the effect on the industry of these developments, we have analyzed the October financial results for a sample of fifty-eight NYSE member firms. These firms all carried customer accounts or cleared securities transactions. We have classified the sampled firms into six groups based on firm size and type of business -- National Full Line Firms, Large Investment Banking Houses, Brokers, Equity Dealers, Debt Dealers, and Other Large Firms. Exhibit G-1 describes the firm groups and the sampling procedure.

The sample is not a microcosm of the industry. It is not at all random, but rather is weighted towards large firms, and to firms specializing in the brokerage and principal businesses. Thus, the results for the sample should not be considered a reflection of the "average" firm. However, the firms in the sample dominate the industry, so the aggregate results of the sample should approximate that of the industry. And an analysis of the results for Brokers and the two dealer categories, while themselves very specialized firms, should give an indication of the effect of the October market break on these businesses at less specialized firms.

II. Income and Profitability

The securities industry has been riding a wave of unprecedented prosperity. After suffering a major downturn in the late 1960's and a mini recession in the early 1970's, the industry has had over a decade of profitability. Between 1975 and 1986, the annual pre-tax return on equity capital for NYSE member firms fell below 20% in only two years. And as a group, NYSE members have lost money in only 2 of the 51 quarters

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1/ Set January 23, 1987

since 1975. In contrast, during the down cycle of 1973 and 1974, NYSE members lost money in four of the eight quarters

Exhibit G-2 presents data on various performance measures for NYSE member firms doing a public business from 1972 through the third quarter of 1987. These performance measures trace the movement of the largest securities firms into low margin, albeit profitable dealer businesses. Dealing in Government securities, which has shown rapid growth since the late 1970s, is a highly leveraged business which results in very small margins on enormous transactions. Many of the recent developments in investment banking, while very profitable, need huge asset bases. The result has been a significant increase both in leverage and in the dollar amount of assets needed to generate a given dollar amount of revenues (represented by a decline in the asset turnover rate). 2/

These patterns can be seen more clearly in Exhibits G-3 and G-4, which trace the movement of the industry to a dealer business from its earlier concentration on brokerage. Since 1976, the proprietary long positions of NYSE members have increased 13-fold, from $9.2 billion in the first quarter of 1976 to $123.2 billion in the third quarter of 1987. Short positions grew sixty-fold during this period, from $1.2 billion to $73.9 billion. In the first quarter of 1976, long positions and resale agreements combined comprised 41.8% of all assets. By the third quarter of 1987 these two items accounted for 68.7% of assets. Conversely, receivables from customers declined as a proportion of assets, from 36.1% in the first quarter of 1976 to 10.7% in the third quarter of 1987.

In line with these balance sheet developments, the customer business has become a less important source of income. In 1986, commissions from securities and investment company transactions and margin interest comprised 32.3% of all revenues, down from 54.7% in 1976. By contrast, revenues from trading and investments, underwriting, and "other securities related revenues" 3/ increased from 40.3% of revenues in 1976 to 58.3% in 1986.

The profit picture was mixed as the industry entered October. In 1986, pre-tax income of NYSE members set an annual record of $5.5 billion. Business remained excellent and in the first quarter of 1987 income reached a new quarterly peak of $2 billion. Income dropped sharply to $533 million in the second quarter of 1987, increasing only to $757 million in the third quarter. The result was a subpar performance for NYSE members-- an annualized three-quarters return on equity of only 18.1%.

The October market break's potential for hurting the profitability of securities firms was considerable. On the dealer side, broker-dealers maintain large positions in equity securities. These include positions in their trading and investment accounts,

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2/ The asset turnover rate is revenues expressed as a percent of assets. This performance measure indicates how successful a business was in turning assets into revenues. The profit margin indicates how successful the firm was in turning revenues into profits.

3/ Other securities related revenues are now predominantly made up of interest on resale agreements and M&A activity market-making inventory, and positions accumulated executing block transactions for institutional customers. Equity inventories for the sampled firms were at record levels on September 30. During the month of October the values of equity securities declined across the board. Conversely, Government and high grade corporate debt increased in value as interest rates declined, potentially ameliorating the decline in equity values. However, while securities firms hold much larger inventories of debt than equities, the increase in bond prices was much smaller than the decrease in that of equities. And debt instruments usually are well hedged, limiting the adverse impact when bond prices fall, but also reducing gains when these prices rise.

The record level of transaction activity during October suggested exceptionally high securities commissions. But even the brokerage business faced potential problems. Some customers could not, or would not, make good on large unsecured debit balances that developed in their accounts. These balances occurred when the value of margined securities declined and no longer equalled or exceeded the amount of the loan, or the deposit on a naked put option did not cover the decline in value of the underlying security. Broker-dealers also suffered losses when customers refused to complete unfavorable trades made before October 19, but due to be settled after that date. The high volume of transactions threatened operational problems. Operational problems increase expenses and may result in bad trades. In the extremely volatile markets, a delayed transaction could result in an unfavorable price for a customer who might look to the broker for restitution.

A. Income and Profitability of Sampled Firms

October was a very bad month for the 58 sampled firms. In total, they lost $1.7 billion (see Exhibit G-5). Their annualized return on equity capital was -96.1 percent (see Exhibits G-6 and G-7). The effect of the market break was broad-based. Three out of four of the sampled firms lost money in October. The median annualized return on equity equalled -66.1 percent. 4/ That is, half of the sampled firms had an annualized return on equity less than -66.1 percent, while half exceeded this rate.

All firm categories were adversely affected. Eight of the fourteen Brokers lost money, suffering a median annualized return on equity of -23.5 percent. Seven of the ten National Full Line Firms and nine of the ten Large Investment Banking Houses experienced losses. The average firm in these two groups had annualized returns on equity of -62.6 percent and -29.4 percent, respectively. As expected, Equity Dealers were hurt the most. Twelve of these thirteen firms lost money, for a net loss of $714.7 million and a median annualized return on equity capital of -652.9 percent.

To put these losses in perspective, Exhibit G-8 compares the losses of the sampled firms in October with their profits in the record first quarter. The losses in

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4/ The weighted averages in Exhibits G-6 and G-7 are computed by first aggregating the numerator and denominator in each group, and then computing the ratio. Large firms, and firms with large losses or gains, will dominate the average return on equity. While the weighted average is the appropriate statistic for examining the results of a group or the sample in the aggregate, it is a poor measure of the results of the "average" firm. For this we use the median ratios. A median ratio is computed by first dividing the numerator by the denominator for each firm, ordering the computed ratios by size, and choosing the middle value.

October of the sampled firms as a group exceeded their first quarter profits. This was primarily due to the Equity Dealers, whose October losses equalled their gains for the preceding nine months. The October losses of the National Full Line Firms, the Large Investment Banking Houses, and Brokers ranged from 55% to 85% of first quarter earnings.

Exhibit G-8 also presents estimates of the annualized return on equity of the sampled firms for the fourth quarter and for 1987 as a whole, assuming profits in November and December equal to the 1972-1987 average. 5/ The fourth quarter estimated return on equity for the sampled firms is -16.4% per annum; the estimated return for 1987 is 7.9%. These rates of return would be the lowest since 1974. 6/ Under this scenario, Brokers would have the most successful year, with a return on equity of 18.5% for the year. National Full Line Firms and Large Investment Banking Houses would see annual returns of 6.1% and 10.5%, respectively.

B. The Agency Business

Exhibit G-9 compares the revenues and expenses of the sampled firms with their average monthly values in the first three quarters of 1987. Exhibit G-10 presents this information for the firm groups. In line with the increase in transaction activity in October, revenues associated with the agency business increased markedly. Securities commissions and margin interest were 51.3 percent and 32.1 percent higher in October than the three-quarters' average. Revenues from selling mutual fund shares were the only downside of the commission business, falling 31.3%.

Brokerage activities were not a source of profits for the sampled firms, however. The increase in revenues was overwhelmed by losses related to customer activity, particularly uncollectable margin debt. Restricting ourselves to Brokers to isolate the commission business, we see that brokerage related revenues were $24.8 million higher in October than in an average month in the first three quarters of 1987 (see Exhibit G-10). However, losses in error accounts and bad debts, generally an insignificant expense item, amounted to $60.4 million in October.

Only three Brokers had a profitable month, with a median return on equity of 57.2 percent. Four other Brokers showed insignificant earnings or losses. The remaining seven Brokers lost significant sums due to bad debts or large trading losses, and showed a median return on equity of -90.2 percent per annum. The smallest Brokers were more likely to be profitable in October than larger ones.

C. The Principal Business

It was on the dealer side that securities firms took their greatest hits. Broker-dealers maintain large inventories of corporate stock. These include trading and market-making inventories, positions in issues they are underwriting, and long term (for a broker) investments, such as an interest in potential takeover targets. The sampled

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5/ Between 1972 and 1987, NYSE members doing a public business averaged a return on equity of 23.4% per annum.

6/ The annualized return on equity capital for NYSE members doing a public business was -18.9% in the second quarter of 1974 and 1.5% for the entire year.

firms reported investment losses of $1.3 billion, wiping out their investment gains during the previous nine months. We think that most of these investment losses resulted from risk arbitrage. About half of investment losses were suffered by Equity Dealers, a group comprised primarily of arbitrageurs. The National Full Line Firms and Large Investment Banking Houses reported over $500 million in losses in this line item.

Trading and market-making activities also were adversely affected. Short run proprietary trading is captured in "other" equity trading. October losses were $231 million, primarily due to large losses at three National Full Line Firms. Declining inventory prices also resulted in a $6 million loss in OTC market-making. These trading losses understate the effect of the October market on these businesses. These losses are revenues (albeit negative) and have yet to have expenses netted from them.

The October market break also hurt the investment banking activities of the sampled firms. Underwriting revenues were only $32.1 million in October, compared to $437.4 million in an average month in 1987. The dollar amount of offerings, particularly of common stock, fell during the month. As importantly, after the market break these equity issues declined in value, resulting in losses for syndicate members.

Revenues from debt trading increased 17%. But this $86 million increase in revenues equalled only 5% of net losses. The three Debt Dealers were the most profitable group in October, with positive net income.

III. Financial Integrity

The principal regulatory tool used to insure the financial integrity of broker-dealers is the Commission's net capital rule (Rule 15c3-1). Rule 15c3-1 requires broker-dealers to maintain capital equal to the full value of their illiquid assets ("illiquid assets"), a prescribed percentage of other assets such as security positions ("haircuts"), plus the greater of a fixed dollar amount or a percentage of their customer-related assets or liabilities ("required net capital").

Firms may determine required net capital in one of two ways. Firms choosing the basic capital method ("BCM"), must maintain net capital equal to the greater of $25,000 7/ or 6 2/3% of their aggregate indebtedness (primarily customer related liabilities). Firms choosing the alternative capital method ("ACM"), must maintain net capital equal to the greater of $100,000 8/ or two percent of their Reserve Formula debits (monies owed the broker-dealer by customers). Smaller firms tend to use the BCM, as they cannot meet the ACM's $100,000 minimum requirement. Large firms tend to use the ACM because of its smaller ratio requirement and lower haircuts on equity securities. These two ratio tests serve to prevent the unlimited expansion of a broker-dealer's customer business financed solely with customer credits.

7/ The minimum dollar amounts for broker-dealers (other than market-makers) which neither carry customer accounts nor clear securities transactions range from $2,500 to $25,000 under the BCM. The minimum dollar amounts for market-makers range from $25,000 to $100,000.

8/ Sole municipal securities dealers using the ACM have a $25,000 minimum dollar requirement.

Haircuts serve primarily to require broker-dealers to maintain sufficient capital to account for the market risk of proprietary positions. The size of haircuts varies, depending on the type of security and length of time to maturity. Treasury and government agency securities, for example, have no credit risk and thus have the lowest haircuts. Those maturing within 3 months are considered to have negligible market risk and take no haircuts. They may be financed solely with debt. Government securities maturing after 25 years take haircuts of 6 percent. In effect, at least 6% of the value of these securities must be financed with the firm's capital. Corporate stocks and below investment-grade corporate debt securities 9/ take the highest haircuts -- 15% for firms computing their net capital requirement using the ACM, 30% for those using the BCM.

Exhibit G-11 presents data on capital, haircuts, and illiquid assets of NYSE members doing a public business from 1976 through the third quarter of 1987. The dollar amount of losses experienced in October must be considered in conjunction with the capital buffers in place. These buffers exist in part to accommodate market reversals, such as took place in October. As Exhibit G-11 shows, capital of NYSE members grew from $3.8 billion in the first quarter of 1976 to $35.0 billion in the third quarter of 1987. Nearly 95% of the increase in capital has taken place since 1980. Haircuts equalled $7.7 billion as of September 30, 1987. That is, NYSE members were required to maintain a regulatory capital cushion of $7.7 billion, which, in effect, was allocated solely to reverses affecting their securities inventory.

Exhibit G-12 presents data on net capital, required net capital, excess net capital, and the two bases for the ratio test. Net capital equals capital after deducting illiquid assets, haircuts, and certain other charges. Excess net capital equals capital in excess of all regulatory requirements (including the minimum net capital requirement). Among other things, excess net capital serves as a cushion to prevent business fluctuations, such as the October market break, from putting a firm into net capital violation, which in turn might result in liquidation. As Exhibit G-12 shows, on September 30, 1987 NYSE members were maintaining $12.9 billion in capital in excess of regulatory requirements.

A. Changes in Capital and Its Components of Sampled Firms

Exhibit G-13 presents data on the regulatory capital of the sampled firms. Exhibit G-14 presents these data for the firm categories. As a group, the sampled firms remain in excellent financial condition. Total capital increased $389.3 million in October, the result of capital infusions by parent companies, other owners, and subordinated lenders. Excess net capital grew by $762.1 million.

While pre-tax income was a negative $1.7 billion in October, equity capital declined by only $450 million. Most of this difference represents capital infusions. 10/ Exhibit G-15 presents the components of change in equity capital for the sampled firms. Netting infusions and withdrawals, these firms acquired $869 million in equity capital

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9/ Below investment-grade securities are corporate debt instruments which, among other things, are not rated in one of the four highest rating categories by at least two nationally recognized statistical rating organizations.

10/ Adjustments to pre-tax income, primarily provisions for Federal Taxes, reduced the impact of these losses by $345 million.

from outside sources in October. Twenty firms obtained a total of $1.1 billion. About $0.9 billion of this amount came from four large broker-dealers, three with parents outside the industry. Eleven of the sampled firms withdrew a total of $189 million of equity capital. The sampled firms also showed net increases in subordinated debt of $839 million.

The capital condition of the National Full Line Firms and the Large Investment Banking Houses were the least affected by the October market break. The excess net capital of the National Full Line Firms grew by $785 million, while that of the Large Investment Banking Houses rose by $357 million. These increases were primarily due to net additions of $935 million in equity and $646 million in subordinated debt for the two groups combined. Brokers saw no net change in total capital, but witnessed a drop of $76 million (17.8%) in their excess net capital. This was primarily the result of a $62 million increase in unsecured customer receivables, an illiquid asset deducted from capital in the computation of net capital.

Equity capital of Equity Dealers dropped $824 million (43%) in October, reflecting a $715 million pre-tax loss and $164 million in net withdrawals of capital. The effect on excess net capital was moderated by massive liquidations of equity positions. 11/ Haircuts dropped $415 million. As a group, Equity Dealers still remain in healthy financial condition, the result of a strong initial capital base. On October 31, excess net capital comprised two-thirds of total capital.

Exhibit G-16 presents data on changes in equity capital and excess net capital for the sampled firms. Eight Equity Dealers experienced declines in equity capital of 25% or more. No other sampled firm saw a decline in equity capital of this magnitude. Thirteen of the sampled firms saw declines in excess net capital of 25% or more.

Exhibit G-17, which classifies the sampled firms by excess net capital relative to total capital on September 30 and October 31, shows a slight improvement in capital position during October. One firm (a Debt Dealer) moved from an excess net capital position of less than ten percent of total capital to the 10 - 25% category. In addition, there was a net movement of three firms from the 25 - 50% category to a capital buffer of over 50% of total capital. Brokers were the only firm group to show a worsening capital position. Two Brokers with excess net capital exceeding 25% of capital on September 30 had ratios of less than 25% on October 31.

B. Losses of Sampled Firms Relative to Relevant Capital Cushions

Haircuts and excess net capital serve as cushions to accommodate fluctuations in a broker-dealer's business. Excess net capital, or capital in excess of regulatory requirements, assures that short term downturns in a firm's business don't result in liquidations. As observed, haircuts require broker-dealers to finance a certain proportion (equal to the haircut) of proprietary positions with capital. The intent is

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11/ The value of equities held by Equity Dealers fell from $4.0 billion on September 30 to $1.5 billion on October 31. Falling equity prices certainly played a role in this decline in value, but reported investment and equity trading losses for Equity Dealers summed to $722.5 million, only 29% of the drop in the dollar value of equity positions.

that any decline in the value of proprietary positions will affect firm capital, not creditors.

Exhibit G-18 presents total losses and losses in two business categories as a percent of the relevant capital cushions in place. The first series of rows displays investment and equity trading losses in October as a percent of equity haircuts on September 30. Forty-one firms lost money trading equities in October. These losses exceeded haircuts for fifteen firms. Another twelve firms had losses in excess of 50% of haircuts.

The second series of rows in Exhibit G-18 compares all trading and investment losses in October with all haircuts on September 30. Gains from debt trading reduced the losses of some firms while debt haircuts added to the capital cushion. Thirty-five firms suffered trading losses on all securities in October. Of these, ten had losses in excess of all haircuts; another nine had losses in excess of 50% of haircuts. We have included investment gains (losses) in the numerator because we think most of the underlying securities in investment accounts are equities. Note that trading and investment losses will understate the decline in equity values, which haircuts are designed to cover. For example, OTC market-makers make money on the spread, ameliorating the declines in the values of their inventories.

The last series of rows in Exhibit G-18 compare all losses in October with the sum of haircuts and excess net capital as of September 30. Forty-five firms lost money in October. None of these firms lost money in excess of the capital cushions in place, but two firms had losses greater than 50% of these cushions.

IV. Operational Condition

On each of two days, October 19 and 20, volume on the NYSE exceeded 600 million shares, twice the pre-October record of 302 million. Seven of the twenty-two trading days in October exceeded this earlier record. The magnitude and sustained level of transactions strained the capacity of the institutions responsible for executing and clearing these trades. Difficulties in processing this volume of transactions forced the NYSE, AMEX, and NASDAQ to close early on October 26 through 30.

Operational problems in the late 1960's, resulting from a rapid increase in volume, were responsible for a number of failures and forced mergers. During the 1960's, volume on all exchanges increased substantially. The back offices of many firms were unable to cope with the ensuing surge of paperwork, and because of the interrelatedness of firms in the securities business, such operational problems had widespread effects on the industry.

In the intervening years, the securities industry has computerized trading operations and back offices and made progress in immobilizing stock certificates in securities depositories. The result is that the industry is now much better able to accommodate not only higher volume levels, but also surges in volume. Surges in volume similar to that of the 1960's have since not adversely affected the operational condition of the industry as a whole.

A. Transaction Efficiency of Sampled Firms

We have attempted to analyze the transaction efficiency of the sampled firms by comparing aged fails to deliver and receive with all fails. Fails occur when a broker-dealer is unable to deliver a security to the contra party on settlement date. The buying broker has a fail to receive, the selling broker a fail to deliver. This is not an unusual occurrence and fails are, in a sense, simply the accounts receivable and payable of the brokerage industry. If the condition persists, the fails "age." Equity securities become aged after five business days.

Exhibit G-19 presents data on the number of tickets, and the number and value of fails and aged fails, as of September 30 and October 31. The number of tickets was 18.4 million in October, a 35 percent increase over the level in September. This record volume did not lead to a significant change in the number or value of aged fails by October 31. The number of aged fails declined nine percent to 26,600 while the value of aged fails rose one percent to $1,282 million. As a percent of all fails, the value of aged fails rose from 11.5% to 13.2%. Brokers showed a significant increase in the value of aged fails, in dollars and as a percent of all fails.

Unfortunately, we don't think that we can draw any conclusions about the operational efficiency of the industry based on Exhibit G-19. Most firms are on a settlement day basis, which means that fails cannot occur until settlement, five business days after the transaction. Transactions that took place October 19 would have become fails October 26 and aged fails on November 2. So none of the transactions that have taken place since October 19 are included as aged fails in Exhibit G-19. To the extent that any operational inefficiencies have developed since October 19, they would show up only to the extent that they have disturbed the settlement of earlier trades.

B. Customer Exposure and Losses of Sampled Firms

Exhibit G-20 presents data on unsecured customer receivables and losses in error accounts and bad debts. Customer receivables are monies customers owe brokers. Generally, brokers attempt to hold collateral with a value at least equal to the monies owed. When brokers are unsuccessful, and the collateral becomes insufficient, the resulting exposure of the broker to the customer is considered an unsecured receivable

Unsecured customer receivables can develop in a number of ways. For example, brokers loan customers monies for margin transactions, retaining in their possession securities with a value in excess of the loan. If the collateral should decline to a value less than the loan, the difference is considered unsecured. Similarly, the exposure of a customer who has written a put option, to the extent that this exposure exceeds any credits in the customer's account, would be considered unsecured. Customer receivables also develop in transactions where the customer has not paid for the purchased security on settlement date. If the security should decline in value, the difference between the value of the security and the payment owed by the customer would be considered unsecured.

Once it becomes clear that customers will not make good on unsecured receivables, the receivables are written off and the resulting losses put in the expense item "losses in error accounts and bad debts." This expense item also may be associated with poorly executed transactions. For example, a broker might be obligated to make up the difference in an unacceptably delayed transaction that resulted in a poor price for a customer. The resulting payment would be included in this expense item.

Losses in error accounts were up 644% in October relative to the average during the first three quarters of 1987. These expenses averaged $42.2 million in the first three quarters and comprised only 1.2% of total expenses. In October, however, these losses equalled $313.9 million -- 8.6% of all expenses. Brokers were hurt the most, with losses in error accounts and bad debts increasing from 0.9% to 28.4% of all expenses.

Customer receivables showed little change between the first three quarters of 1987 and month-end October. Unsecured receivables grew 114%, however, from $645 million to $1,382 million. On October 31, the sampled firms were carrying about $737 million more in unsecured customer receivables than they had averaged during the previous three quarters. This additional exposure was more than twice the amount they had already written off in losses in error accounts and bad debts, and equal to about 44% of October losses.

Exhibit G-1

Sample Selection and Firm Categories

In order to estimate the industry's financial results during October and its financial condition at the end of October, we obtained the September 30 and October 31 FOCUS Reports of a sample of 58 NYSE members. All of these firms either carry customer accounts or clear securities transactions ("carrying firms"). We have classified the sampled firms into six groups based on firm size and type of business -- National Full Line Firms, Large Investment Banking Houses, Brokers, Equity Dealers, Debt Dealers, and Other Large Firms.

The ten National Full Line Firms are large broker-dealers that are involved in all aspects of the securities business and have nationwide (or multi-regional) branch office networks. The ten Large Investment Banking Houses are large firms that are known principally as syndicate managers (other than those that operate extensive networks of branch offices).

The fourteen Brokers in the sample earned the majority of their revenues from brokerage activities and had relatively small proprietary positions that might be at risk to market fluctuations. There were over 100 NYSE carrying firms which obtained more than half their revenues from brokerage activities (commissions on securities and investment company transactions and margin interest) in the second quarter of 1987. We have included 14 of these brokers in our sample. Most of the sampled brokers had ratios of brokerage revenues to total revenues exceeding 70% and none had proprietary positions in equity or corporate debt securities exceeding ten percent of total assets. While we have included a few smaller brokers, most of the sampled brokers are larger than average.

While many NYSE members specialize in the brokerage business, few concentrate solely on principal activities. We did identify 13 Equity Dealers -- NYSE members that maintained large positions in stocks and options relative to total assets in the second quarter 1987. In fact, stocks and options exceeded 70% of total assets for most of these firms. This concentration of proprietary positions represents their specialization in market-making, arbitrage, and specialist activities. On average, Equity Dealers are smaller than our sampled brokers. Large firms, while participating in these activities, are more likely to be diversified.

We identified three firms with large positions in corporate debt securities in the second quarter of 1987. The value of their inventories of corporate debt ranged from 40% to 80% of assets. We also have included eight large firms that are not as readily categorized. These Other Large Firms assured that the sample included the twenty largest NYSE carrying firms in terms of total assets, total capital, long positions, proprietary positions in stock, and customer receivables.

It is clear that our sample is not at all random. It is comprised solely of NYSE members that carry customer accounts or clear securities transactions. Among this select group, the sample is disproportionately weighted towards large firms, and to firms specializing in the brokerage or dealer business. However, given the constraint on our sample size, it is doubtful that a random sample could be created that would be more representative of the industry, or provide any guidance on the effect of the October market break on the "average" firm. So we have instead concentrated on firms whose results are of most interest from the Commission's perspective.

Exhibit G-1 (con't)

An analysis of the results of Brokers and the two dealer categories, while themselves very specialized firms, should give an indication of the effect of the October market break on these businesses at less specialized firms. And the inclusion of the largest firms in the industry make it likely that the financial results of the sample will approximate that of the industry. As the following table indicates, the sampled firms accounted for over half of the dollar amounts of a number of key financial items in the second quarter of 1987. Thus, the results of the sample should tend to mirror that of the industry.

Exhibit G-1 (con't)

Sample Proportion of Various Financial Items
Second Quarter, 1987

	All Firms 1/	Carrying Firms	NYSE Carrying Firms
I&E Items			
All Retail Revenues 2/	54.5%	68.4%	77.3%
Securities Commission Income	53.5	67.1	75.5
Trading and Investment Gains (Losses)	66.4	72.4	86.5
Trading in Equities 3/	NA	57.6	76.8
Total Revenues	63.7	73.3	83.5
Balance Sheet Items			
Customer Receivables	82.9	82.9	85.8
Long Positions	79.0	81.2	92.8
Equity Securities	NA	77.8	87.8
Total Assets	80.5	81.8	90.6
Total Capital	65.3%	73.3%	85.3%

1/ Broker-dealers without a Commission net capital requirement file FOCUS Reports semi-annually or annually, and thus are not included in this table. The financial items of these firms equal only a few percent of those of firms with a Commission net capital requirement.

2/ Includes securities commission income, investment company revenues, and margin interest.

3/ Includes all trading gains (losses) except those involving debt securities.

NA: Not available for non-carrying firms.

Exhibit G-2

Profitability of NYSE Member Firms Doing a Public Business
1972-1987

	Pre-Tax Net Income ($ millions)	Pre-tax Profit Margin 1/	Asset Turnover 2/	Financial Leverage 3/	Return on Equity 4/
1972	$ 789	13.2%	22%	8.6	25.1%
1973	-72	-1.5	23	8.1	-2.8
1974	36	.8	23	8.4	1.5
1975	804	13.7	26	8.4	29.8
1976	984	14.2	18	12.1	31.2
1977	416	6.2	15	13.7	13.1
1978	684	7.7	16	15.7	20.0
1979	1,100	9.8	15	18.9	27.8
1980	2,265	14.2	16	19.1	42.3
1981	2,139	10.8	16	18.1	32.0
1982	3,026	13.0	18	19.3	33.9
1983	3,810	12.9	16	18.3	32.5
1984	1,589	5.1	13	21.6	13.1
1985	4,146	10.7	13	23.7	28.8
1986	5,482	11.0	12	21.1	27.6
1987 (Q1-Q3)	$3,333	8.2%	12%	19.4	18.1%
1985 Q1	$ 933	10.4%	14%	19.6	28.8%
Q2	1,067	11.6	13	20.5	31.2
Q3	670	7.6	12	20.9	18.7
Q4	1,476	12.6	12	23.7	35.5
1986 Q1	1,945	15.1	13	21.8	42.5
Q2	1,317	10.6	12	21.6	27.3
Q3	1,056	9.0	11	21.2	20.8
Q4	1,164	9.0	12	21.1	21.7
1987 Q1	2,043	13.9	13	19.2	34.5
Q2	533	4.2	11	18.8	8.7
Q3	$ 757	5.6%	11%	19.4	11.8%

1/ Pre-tax income stated as a percent of total revenues.
2/ Total revenues stated as a percent of total assets.
3/ Total assets stated as a ratio of equity capital.
4/ Pre-tax income stated as a percent of equity capital.

Exhibit G-3

Selected Balance Sheet Items of NYSE Member Firms
Doing a Public Business, 1976-1987

(Millions of Dollars)

		Total Assets	Long Positions	Resale Agreements	Short Positions	Customer Receivables
1976	Q1	$ 26,357	$ 9,204	$ 1,803	$ 1,170	$ 9,503
	Q2	28,251	9,642	2,496	1,590	10,180
	Q3	31,184	12,172	2,643	1,579	10,591
	Q4	38,181	15,662	4,255	2,129	11,453
1977	Q1	35,096	11,330	5,070	2,441	11,769
	Q2	39,331	13,215	5,183	2,955	12,941
	Q3	39,932	11,702	7,518	3,628	12,887
	Q4	43,621	13,799	8,187	3,980	13,537
1978	Q1	44,008	12,302	9,109	4,520	15,294
	Q2	50,002	13,679	10,276	5,371	17,760
	Q3	55,750	15,071	12,091	5,997	19,586
	Q4	53,902	15,238	14,018	6,610	15,868
1979	Q1	54,952	16,125	14,695	6,487	15,445
	Q2	68,872	22,159	18,534	7,208	18,064
	Q3	74,147	22,645	20,694	10,765	19,301
	Q4	75,004	23,199	24,244	13,706	17,981
1980	Q1	64,655	16,750	18,019	7,309	17,736
	Q2	78,455	23,027	23,094	9,844	17,466
	Q3	80,042	23,042	20,999	9,729	18,644
	Q4	102,242	29,448	31,016	20,532	22,702
1981	Q1	94,119	32,759	23,877	10,744	20,365
	Q2	99,258	31,532	27,810	13,041	20,606
	Q3	96,472	27,378	32,425	12,691	19,496
	Q4	120,960	37,262	42,436	17,302	20,785
1982	Q1	103,371	33,340	32,265	12,072	17,902
	Q2	111,649	34,111	39,106	15,531	17,696
	Q3	136,908	39,455	47,722	22,460	19,411
	Q4	172,141	65,161	51,486	28,771	23,758
1983	Q1	156,066	50,802	47,168	25,639	25,259
	Q2	169,383	53,761	51,292	28,319	30,709
	Q3	191,357	61,987	60,626	30,643	31,872
	Q4	214,784	70,220	74,914	38,622	31,801
1984	Q1	215,283	67,595	78,805	42,274	29,645
	Q2	219,228	59,453	89,081	37,189	30,755
	Q3	231,023	73,941	87,396	39,883	28,214
	Q4	275,463	120,207	104,409	44,028	29,093
1985	Q1	254,917	81,448	102,611	47,035	27,770
	Q2	281,291	94,348	104,625	50,782	33,392
	Q3	298,796	102,135	111,150	55,433	35,731
	Q4	393,205	139,486	136,147	71,184	45,222

Exhibit G-3 (con't)

Selected Balance Sheet Items of NYSE Member Firms
Doing a Public Business, 1976-1987

(Millions of Dollars)

		Total Assets	Long Positions	Resale Agreements	Short Positions	Customer Receivables
1986	Q1	399,579	145,999	129,483	59,166	47,887
	Q2	416,487	143,255	144,925	60,867	47,679
	Q3	430,854	136,587	167,152	65,003	48,655
	Q4	452,541	145,549	171,516	66,997	52,329
1987	Q1	456,131	139,445	172,391	70,375	49,621
	Q2	459,126	118,342	195,630	66,221	52,439
	Q3	$497,844	$123,242	$219,007	$73,864	$53,341

Exhibit G-4

Revenues of NYSE Member Firms Doing a Public Business
1976-1987

(Millions of Dollars)

	Total Revenues	Securities Commission Income	Investment Company Revenues	Margin Interest	Trading and Investment	Underwriting Profits	Other Securities Related Business
1976	$ 6,902	$ 3,164	$ 45	$ 565	$ 1,400	$ 853	$ 530
1977	6,730	2,809	59	754	1,296	776	574
1978	8,832	3,779	59	1,173	1,543	742	847
1979	11,264	4,012	76	1,652	2,671	770	1,162
1980	15,986	5,671	105	2,089	3,699	1,307	1,725
1981	19,805	5,346	122	2,890	4,813	1,572	2,964
1982	23,212	6,021	288	1,998	6,553	2,319	3,940
1983	29,542	8,348	953	2,130	7,571	3,530	4,387
1984	31,148	7,082	751	2,811	8,253	2,706	6,271
1985	38,739	8,249	1,798	2,575	10,987	4,251	7,175
1986	50,030	10,453	2,796	2,909	13,717	5,923	9,540
1987 (Q1-Q3)	$40,703	$ 9,441	$1,847	$2,467	$ 9,509	$4,492	$8,491

Exhibit G-5

Net Income of Sampled Firms

	Number of Firms	Monthly Net Income ($millions) Three-quarters 1987 1/	Monthly Net Income ($millions) October 1987	Percent of Firms With Losses March, June, Sept, 1987 2/	Percent of Firms With Losses October, 1987
Total Sample	58	$274.1	$(1,664.2)	22.4%	77.6%
National Full Line	10	67.3	(433.2)	20.0	70.0
Large Investment Bankers	10	90.3	(311.3)	30.0	90.0
Other Large Firms	8	29.0	(160.9)	20.8	87.5
Brokers	14	37.2	(46.8)	11.9	57.1
Equity Dealers	13	71.6	(714.7)	23.1	92.3
Debt Dealers	3	$ (1.2)	$ 1.3	55.6%	66.7%

1/ Average monthly income during first nine months of 1987.

2/ Proportion of firms that lost money during March, June, and September of 1987. Monthly income is available only for last month of a quarter from Part II of the FOCUS Report

Exhibit G-6

Return on Equity Capital of Sampled Firms

	Weighted Average 1/ Three-quarters 1987	Weighted Average 1/ October 1987	Median 2/ Three quarters 1987	Median 2/ October 1987
Total Sample	16.1	(96.1)	24.3	(66.1)
National Full Line	9.0	(51.4)	10.6	(62.6)
Large Investment Bankers	14.3	(50.3)	19.1	(29.4)
Other Large Firms	27.5	(154.5)	23.8	(114.5)
Brokers	26.7	(68.4)	20.9	(23.5)
Equity Dealers	48.5	(783.6)	48.0	(652.9)
Debt Dealers	(18.1)	20.0	(59.7)	(17.7)

1/ Weighted average ratios are calculated by first summing values in each of the numerator and denominator across all firms and then dividing the aggregate numerator by the aggregate denominator.

2/ Median ratios are calculated by first computing ratios for each firm in a group; second, ordering these ratios by size; and third, selecting the middle value.

Exhibit G-7

Profitability of Sampled Firms

Weighted Average 1/

	Three-quarters, 1987				October, 1987			
	REC	PM	AT	LEV	REC	PM	AT	LEV
Total Sample	16.1	7.4	10.2	21.1	(96.1)	(83.0)	5.5	21.0
National Full Line	9.0	3.6	16.3	15.5	(51.4)	(26.4)	14.0	13.9
Large Investment Bankers	14.3	7.1	6.4	31.4	(50.3)	(36.5)	4.2	32.6
Other Large Firms	27.5	11.9	7.7	30.2	(154.5)	(489.0)	1.2	26.7
Brokers	26.7	10.2	23.5	11.1	(68.4)	(27.8)	14.4	17.1
Equity Dealers	48.5	70.7	23.6	2.9	(783.6)	NA	(270.7)	2.8
Debt Dealers	(18.1)	(13.1)	3.8	36.0	20.0	10.6	5.3	35.7

Medians 2/

	Three-quarters, 1987				October, 1987			
	REC	PM	AT	LEV	REC	PM	AT	LEV
Total Sample	24.3	9.7	19.8	10.0	(66.1)	(47.9)	5.9	8.8
National Full Line	10.6	3.9	16.2	17.4	(62.6)	(33.8)	12.2	16.4
Large Investment Bankers	19.1	7.8	8.1	28.3	(29.4)	(22.1)	5.7	27.9
Other Large Firms	23.8	9.6	8.7	24.3	(114.5)	(247.2)	2.7	18.7
Brokers	20.9	7.3	38.4	6.4	(23.5)	(6.7)	44.4	6.5
Equity Dealers	49.0	69.6	29.5	2.3	(652.9)	na	(280.3)	2.3
Debt Dealers	(59.7)	(132.6)	1.3	16.8	(17.7)	(27.3)	5.3	13.5

1/ Weighted average ratios are calculated by first summing values in each of the numerator and denominator across all firms and then dividing the aggregate numerator by the aggregate denominator.

2/ Median ratios are calculated by first computing ratios for each firm in a group; second, ordering these ratios by size; and third, selecting the middle value.

NA: Over half of revenues are negative.
na: Over half of firms had negative revenues.

Note: REC is the annualized return on equity capital (pre-tax income as a percent of equity capital).
PM is the profit margin (pre-tax income as a percent of total revenues).
AT is the annualized asset turnover rate (revenues as a percent of assets).
LEV is leverage (assets divided by equity capital).

Exhibit G-8

October Losses of Sampled Firms in Perspective

	Net Income		Estimated Return on Equity 1/	
	First Quarter 1987	October 1987	Fourth Quarter 1987	All-year 1987
Total Sample	$1,644.7	$(1,664.2)	(16.4)%	7.9 %
National Full Line	512.2	(433.2)	(1.5)	6.1
Large Investment Bankers	575.3	(311.3)	(1.2)	10.5
Other Large Firms	150.4	(160.0)	(35.9)	12.0
Brokers	70.8	(46.3)	(7.2)	18.5
Equity Dealers	338.8	(714.7)	(245.6)	(2.1)
Debt Dealers	$ (2.8)	$ 1.3	22.3 %	(7.3)%

1/ Assumes return on equity of 23.4% in November and December.

Exhibit G-9

Revenues and Expenses of Sampled Firms

	$ millions			Percent of All Revenues	
	Three-Quarters 1987 1/	October 1987	Percent Change	Three-Quarters 1987	October 1987
Securities Commissions	$ 731.4	$ 1,106.3	51.3 %	19.8%	55.2 %
Margin Interest	221.9	293.2	32.1	6.0	14.6
Investment Co. Revenues	162.3	111.5	(31.3)	4.4	5.6
Trading and Investment	919.6	(989.5)	(207.6)	24.9	(49.4)
Equity Trading 2/	260.1	(236.7)	(191.0)	7.0	(11.8)
OTC Market-Making	140.2	(6.0)	(104.3)	3.8	(.3)
Other Equity	120.0	(230.7)	(292.3)	3.2	(11.5)
Debt Trading	509.6	596.0	17.0	13.8	29.7
Investment 3/	149.9	(1,348.8)	(999.8)	4.1	(67.3)
Underwriting Profits	437.4	32.1	(92.7)	11.8	1.6
Other Revenues	1,220.8	1,450.3	18.8	33.1	72.4
Total Revenues	3,693.4	2,004.1	(45.7)	100.0	100.0
Total Expenses	3,419.3	3,668.3	7.3	92.6	183.0
Losses in Error Accts.	42.2	313.9	643.2	1.1	15.7
Net Income	$ 274.1	$(1,664.2)	(707.2)%	7.4%	(83.0)%

1/ Average monthly revenues, expenses, or income for first nine months of 1987.
2/ Includes all trading revenues except debt trading.
3/ Investment gains (losses) are not broken out by instrument.

Exhibit G-10

Revenues and Expenses of Sampled Firm Categories
($millions)

	National Full Line		Large Investment Bankers		Other Large Firms	
	Three-Quarters, 1987 1/	October, 1987	Three-Quarters, 1987 1/	October, 1987	Three-Quarters, 1987 1/	October, 1987
Securities Commissions	$ 445.6	$ 675.4	$ 151.9	$ 245.3	$ 52.2	$ 74.5
Margin Interest	137.4	170.1	50.8	75.7	15.7	26.9
Investment Co. Revenues	145.8	102.3	3.7	2.3	.6	.4
Trading and Investment	409.4	(78.2)	364.8	(9.7)	49.0	(178.9)
Equity Trading 2/	136.9	(189.4)	89.7	11.9	13.6	(28.2)
OTC Market-Making	88.9	26.1	35.1	(20.4)	3.3	(7.5)
Other Equity	48.1	(215.5)	54.7	32.3	10.3	(20.7)
Debt Trading	256.9	342.5	241.7	256.9	7.7	(4.6)
Investment 3/	15.6	(231.3)	33.3	(278.4)	27.7	(146.1)
Underwriting Profits	233.2	130.1	186.2	[illegible]	11.2	7.8
Other Revenues	520.7	643.9	520.1	[illegible]	115.6	102.1
Total Revenues	1,892.1	1,643.6	1,277.5	[illegible]	244.2	32.7
Total Expenses	1,824.8	2,076.8	1,187.2	[illegible]	215.2	192.7
Losses in Error Accts.	31.9	160.9	7.9	81.1	1.0	12.4
Net Income	$ 67.3	$ (433.2)	$ 90.3	$ (311.3)	$ 29.0	$ (160.0)

	Brokers		Equity Dealers		Debt Dealers	
	Three-Quarters, 1987 1/	October, 1987	Three-Quarters, 1987 1/	October, 1987	Three-Quarters, 1987 1/	October, 1987
Securities Commissions	$ 76.9	$104.8	$ 1.4	$ 2.0	$ 3.4	$ 4.4
Margin Interest	17.9	20.4	0	0	.1	.1
Investment Co. Revenues	12.2	6.6	0	0	0	0
Trading and Investment	15.2	.8	82.8	(722.5)	(1.6)	(1.0)
Equity Trading 2/	10.1	(4.1)	10.7	(31.6)	(.9)	4.7
OTC Market-Making	6.1	(2.7)	6.8	(1.0)	0	(.4)
Other Equity	3.9	(1.4)	3.9	(30.6)	(.9)	5.1
Debt Trading	4.2	5.7	0	0	(.9)	(4.5)
Investment 3/	1.0	(.9)	72.1	(690.9)	.2	(1.2)
Underwriting Profits	7.7	5.8	.1	0	(1.1)	.2
Other Revenues	39.1	28.2	16.9	17.1	8.6	9.1
Total Revenues	169.0	166.6	101.2	(703.4)	9.4	12.7
Total Expenses	151.8	212.9	29.6	11.3	10.7	11.3
Losses in Error Accts.	1.4	60.4	0	.1	0	0
Net Income	$ 17.2	$(46.3)	$ 71.6	$(714.7)	$(1.2)	$ 1.3

1/ Average monthly revenues, expenses, or income for first nine months of 1987.
2/ Includes all trading revenues except debt trading.
3/ Investment gains (losses) are not broken out by instrument.

Exhibit G-11

Capital and Factors Affecting Regulatory Capital Needs of NYSE Member Firms Which Conduct a Public Business, 1976-1987

(Millions of Dollars)

		Total Capital	Equity Capital	Subordinated Debt	Illiquid Assets	Haircuts on Securities
1976	Q1	$ 3,765	$ 2,995	$ 770	$ 983	$ 567
	Q2	3,799	3,031	768	1,038	587
	Q3	3,830	3,082	748	996	652
	Q4	3,913	3,147	766	1,033	694
1977	Q1	3,880	3,159	721	1,014	694
	Q2	3,941	3,207	734	1,006	795
	Q3	3,913	3,165	748	1,053	766
	Q4	3,927	3,168	759	1,019	799
1978	Q1	3,878	3,150	728	1,069	772
	Q2	4,063	3,291	772	1,118	818
	Q3	4,418	3,517	901	1,142	867
	Q4	4,390	3,427	963	1,207	747
1979	Q1	4,549	3,602	947	1,208	765
	Q2	4,706	3,744	962	1,282	925
	Q3	4,930	3,924	1,006	1,330	964
	Q4	4,999	3,959	1,040	1,376	958
1980	Q1	5,381	4,101	1,280	1,549	743
	Q2	5,948	4,675	1,273	1,626	1,021
	Q3	6,243	4,903	1,340	1,709	995
	Q4	6,835	5,359	1,476	1,995	1,054
1981	Q1	7,109	5,740	1,369	2,016	1,074
	Q2	7,609	6,254	1,355	2,264	1,237
	Q3	7,347	5,983	1,364	2,382	1,112
	Q4	8,168	6,685	1,483	2,922	1,312
1982	Q1	8,383	6,930	1,453	3,344	1,175
	Q2	8,437	7,032	1,405	3,574	1,362
	Q3	9,312	7,733	1,579	3,683	1,635
	Q4	10,779	8,937	1,842	3,750	1,960
1983	Q1	11,612	9,733	1,879	3,971	1,794
	Q2	12,607	10,519	2,088	4,310	2,335
	Q3	13,356	11,117	2,239	4,567	2,325
	Q4	14,207	11,721	2,486	5,025	2,756
1984	Q1	14,886	12,026	2,860	5,319	2,640
	Q2	15,389	11,764	3,625	6,151	2,703
	Q3	15,387	12,082	3,305	6,089	2,623
	Q4	16,848	12,751	4,097	6,347	3,400
1985	Q1	16,930	12,974	3,956	6,118	3,235
	Q2	17,914	13,709	4,205	6,406	4,141
	Q3	18,821	14,305	4,516	6,734	4,171
	Q4	22,039	16,624	5,415	7,142	5,488

Exhibit G-11 (con't)

Capital and Factors Affecting Regulatory Capital Needs of NYSE Member Firms Which Conduct A Public Business, 1976-1987

(Millions of Dollars)

		Total Capital	Equity Capital	Subordinated Debt	Illiquid Assets	Haircuts on Securities
1986	Q1	24,828	18,295	6,533	7,727	6,678
	Q2	26,137	19,310	6,827	8,316	6,576
	Q3	28,112	20,339	7,773	9,217	6,427
	Q4	30,110	21,479	8,631	9,687	6,758
1987	Q1	32,580	23,706	8,874	10,667	7,977
	Q2	34,043	24,406	9,637	11,404	7,421
	Q3	$34,992	$25,637	$9,355	$12,164	$7,741

Exhibit G-12

Net Capital, Required Net Capital, and Excess Net Capital of NYSE Member Firms Which Conduct a Public Business, 1976-1987

(Millions of Dollars)

		Net Capital 1/	Required Net Capital	Excess Net Capital	Aggregate Indebtedness 2/	Reserve Formula Debits
1976	Q1	$ 2,133	$ 595	$ 1,538	$5,205	$10,066
	Q2	2,116	545	1,571	3,892	10,384
	Q3	2,069	619	1,450	2,881	11,196
	Q4	2,116	630	1,486	2,674	13,501
1977	Q1	2,143	598	1,545	2,249	13,103
	Q2	2,123	630	1,493	1,710	14,223
	Q3	2,025	614	1,411	1,227	14,472
	Q4	2,167	628	1,539	879	14,840
1978	Q1	1,975	583	1,392	1,715	13,396
	Q2	2,014	687	1,327	2,095	15,408
	Q3	2,236	787	1,449	2,042	17,656
	Q4	2,341	632	1,659	1,658	15,497
1979	Q1	2,418	596	1,822	1,423	15,323
	Q2	2,635	674	1,961	1,671	16,883
	Q3	2,632	749	1,883	1,649	18,462
	Q4	2,743	766	1,977	1,937	19,142
1980	Q1	2,990	789	2,201	1,546	18,795
	Q2	3,411	815	2,596	1,917	19,894
	Q3	3,461	888	2,573	1,843	21,096
	Q4	3,818	1,064	2,754	2,140	25,357
1981	Q1	3,970	871	3,099	1,774	21,368
	Q2	4,166	930	3,236	1,943	22,721
	Q3	3,954	838	3,116	1,870	20,418
	Q4	4,279	962	3,317	2,006	23,347
1982	Q1	4,258	775	3,483	1,446	13,470
	Q2	4,018	421	3,597	991	13,190
	Q3	4,178	500	3,678	1,371	21,170
	Q4	5,320	632	4,688	1,780	27,042
1983	Q1	5,218	600	4,618	1,506	25,611
	Q2	5,357	737	4,620	1,922	31,404
	Q3	5,902	743	5,160	1,987	32,446
	Q4	5,743	799	4,944	2,206	33,607
1984	Q1	6,356	708	5,648	1,704	30,695
	Q2	6,093	721	5,372	1,706	31,123
	Q3	6,238	733	5,505	1,825	31,248
	Q4	6,599	880	5,718	3,021	35,204
1985	Q1	6,488	704	5,784	1,648	30,541
	Q2	6,891	[illegible]	6,425	2,344	38,242
	Q3	6,793	840	5,953	2,470	36,675
	Q4	7,694	1,203	6,491	3,680	51,430

Exhibit G-12 (con't)

Net Capital, Required Net Capital, and Excess Net Capital of
NYSE Member Firms Which Conduct a Public Business, 1976-1987

(Millions of Dollars)

		Net Capital 1/	Required Net Capital	Excess Net Capital	Aggregate Indebtedness 2/	Reserve Formula Debit
1986	Q1	7,987	1,149	6,838	3,580	48,644
	Q2	8,655	1,115	7,540	2,811	48,897
	Q3	10,074	1,148	8,925	2,380	50,087
	Q4	10,845	1,298	9,548	3,377	57,252
1987	Q1	14,111	1,330	12,781	3,639	56,359
	Q2	15,432	1,438	13,994	4,577	59,254
	Q3	$14,331	$1,470	$12,861	$3,760	$62,473

1/ Net capital equals total capital after the deduction of haircuts on securities and illiquid assets and the subtraction (or addition) of miscellaneous capital charges (credits).

2/ Aggregate Indebtedness of BCM firms. ACM firms are not required to compute or report Aggregate Indebtedness.

Exhibit G-13

Some Regulatory Components of Capital
of Sampled Firms
($millions)

	All Sampled Firms	
	September 30, 1987	October 31, 1987
Total Capital	$29,474.0	$29,863.3
Equity Capital	21,232.9	20,783.1
Subordinated Debt	8,241.1	9,080.2
Haircuts	6,674.0	6,067.2
Equity 1/	3,682.4	3,120.7
Concentration	123.0	48.5
Other	2,868.6	2,898.1
Illiquid Assets	10,241.8	10,423.7
Net Capital	11,008.5	11,834.1
Required Net Capital	1,207.7	1,271.2
Excess Net Capital	$ 9,800.8	$10,562.9

1/ Includes haircuts on stocks, options, and arbitrage.

Exhibit G-14

Some Regulatory Components of Capital
Sampled Firm Categories
($ millions)

	National Full Line		Large Investment Bankers		Other Large Firms	
	Sept. 30, 1987	Oct. 31, 1987	Sept. 30, 1987	Oct. 31, 1987	Sept. 30, 1987	Oct. 31, 1987
Total Capital	$13,714.6	$14,707.6	$10,961.1	$11,049.7	$1,507.9	$1,578.8
Equity Capital	9,621.4	10,122.4	7,496.1	7,430.2	1,282.6	1,242.6
Subordinated Debt	4,093.3	4,585.2	3,465.1	3,619.5	225.3	336.2
Haircuts	2,314.7	2,221.9	3,117.7	3,077.4	440.9	387.9
Equity 1/	1,051.9	953.0	1,728.5	1,663.5	306.7	270.5
Concentration	2.2	9.5	28.6	9.3	12.8	7.1
Other	1,260.5	1,259.4	1,360.7	1,404.6	121.3	110.3
Illiquid Assets	6,624.4	6,796.1	2,658.1	2,611.2	362.8	374.1
Net Capital	4,240.2	4,993.3	4,359.7	4,819.8	640.0	688.5
Required Net Capital	582.4	550.5	489.4	593.0	70.8	64.5
Excess Net Capital	$ 3,657.9	$ 4,442.8	$ 3,870.3	$ 4,226.8	$ 569.2	$ 624.0

	Brokers		Equity Dealers		Debt Dealers	
	Sept. 30, 1987	Oct. 31, 1987	Sept. 30, 1987	Oct. 31, 1987	Sept. 30, 1987	Oct. 31, 1987
Total Capital	$1,034.1	$1,030.8	$2,062.0	$1,238.1	$194.3	$258.2
Equity Capital	848.5	813.0	1,918.4	1,094.6	65.8	80.3
Subordinated Debt	185.5	217.8	143.6	143.6	128.5	177.9
Haircuts	50.8	42.6	662.7	247.5	87.2	90.0
Equity 1/	20.8	18.1	571.6	213.2	2.8	2.4
Concentration	1.2	.9	77.4	21.7	.9	0
Other	28.8	23.6	13.7	12.7	83.6	87.5
Illiquid Assets	457.9	536.2	88.8	60.2	49.7	45.9
Net Capital	489.7	410.1	1,247.6	835.	31.2	87.1
Required Net Capital	61.8	58.3	1.2	1.3	2.1	3.6
Excess Net Capital	$ 427.9	$ 351.8	$1,246.4	$ 834.0	$ 29.1	$ 93.6

1/ Includes haircuts on stocks, options, and arbitrage.

Exhibit G-15

Components of Change in Equity Capital of NYSE Sample
September 30 Compared to October 31, 1987

	Equity Capital September 30	Factors Affecting Equity Capital in October: Pre-tax Income	Adjustments to Pre-Tax Income 1/	Net Additions to Equity Capital	Equity Capital October 31
Total Sample	$21,232.9	$(1,664.2)	$ 345.3	$ 869.2	$20,783.1
National Full Line	9,621.4	(433.2)	146.7	787.6	10,122.4
Large Investment Bankers	7,496.1	(311.3)	97.9	147.5	7,430.2
Other Large Firms	1,282.6	(160.0)	23.2	96.7	1,242.6
Brokers	848.5	(46.3)	20.5	(9.7)	813.0
Equity Dealers	1,918.4	(714.7)	54.4	(163.6)	1,094.6
Debt Dealers	$ 65.8	$ 1.3	$ 2.6	$ 10.6	$ 80.3

1/ Primarily provisions for Federal taxes.

Exhibit G-16

Percent Change in Equity Capital and Excess Net Capital of Sampled Firms
September 30 - October 31, 1987

	Total Sample	National Full Line	Large Investment Bankers	Other Large Firms	Brokers	Equity Dealers	Debt Dealers
All Firms	58	10	10	8	14	13	3
Percent Change in Equity Capital							
No change or increase	21	5	2	3	7	2	2
Decrease of							
less than 10%	21	5	6	2	6	1	1
10%-25%	8	0	2	3	1	2	0
25%-50%	4	0	0	0	0	4	0
50% or more	4	0	0	0	0	4	0
Percent Change in Excess Net Capital							
No change or increase	27	7	5	5	4	3	3
Decrease of							
less than 10%	6	1	1	0	3	1	0
10%-25%	12	2	3	2	4	1	0
25%-50%	11	0	1	1	3	6	0
50% or more	2	0	0	0	0	2	0

Exhibit G-17

Excess Net Capital as a Percent of Total Capital
September 30 Compared With October 31, 1987

	Total Sample		National Full Line		Large Investment Bankers		Other Large Firms		Brokers		Equity Dealers		Debt Dealers	
	Sept	Oct	Sept	Oct	Sept	Oct	Sept	Oct	Sept	Oct	Sept	Oct	Sept	Oct
All Firms	58	58	10	10	10	10	8	8	14	14	13	13	3	3
Excess Net Capital As a Percent of Total Capital														
Under 0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0-10%	1	0	0	0	0	0	0	0	0	0	0	0	1	0
10-25%	8	9	5	4	2	1	1	0	0	2	0	1	0	1
25-50%	32	29	4	5	7	8	4	4	11	10	5	2	1	0
Over 50%	17	20	1	1	1	1	3	4	3	2	8	10	1	2

Exhibit G-18

October Losses of Sampled Firms Relative to Regulatory Capital Buffers In Place September 30, 1987

	Total Sample	National Full Line	Large Investment Bankers	Other Large Firms	Brokers	Equity Dealers	Debt Dealers
All Firms	58	10	10	8	14	13	3
Investment and Equity Trading Losses as a Percent of Equity Haircuts 1/ 2/							
All Firms	41	7	6	6	8	12	2
0-25%	6	2	1	0	2	1	0
25-50%	8	2	1	3	1	0	1
50-100%	12	2	2	1	3	4	0
Over 100%	15	1	2	2	2	7	1
Trading and Investment Losses as a Percent of Haircuts 3/							
All Firms	35	5	5	6	5	12	2
0-25%	12	4	3	1	2	1	1
25-50%	4	0	0	2	1	1	0
50-100%	9	0	2	2	1	3	1
Over 100%	10	1	0	1	1	7	0
All Losses as a Percent of Excess Net Capital and Haircuts 4/							
All Firms	45	7	9	7	8	12	2
0-25%	31	6	8	6	7	2	2
25-50%	12	1	1	1	1	8	0
50-100%	2	0	0	0	0	2	0
Over 100%	0	0	0	0	0	0	0

1/ Equity trading is all trading less debt trading. Equity haircuts are haircuts on stocks, options, and arbitrage.
2/ For firms with investment and equity trading losses.
3/ For firms with trading and investment losses.
4/ For firms with losses.

Exhibit G-19

Transaction Efficiency of Sampled Firms
September 30 and October 31, 1987

	Tickets (thousands)		Aged Fails 1/ (thousands)		Aged Fails 1/ ($millions)		Aged Fails as a Percent of All Fails 1/	
	Sept	Oct	Sept	Oct	Sept	Oct	Sept	Oct
Total Sample	13,637.7	18,439.4	29.3	26.6	$1,266.1	$1,282.4	11.5%	13.2%
National Full Line	8,698.3	11,205.4	19.5	17.7	580.7	591.8	11.9	15.4
Large Investment Bankers	1,917.1	2,839.3	2.6	2.5	496.2	471.7	13.3	10.5
Other Large Firms	1,848.8	2,659.3	4.8	4.1	135.2	136.7	7.7	14.8
Brokers	934.6	1,389.5	2.2	2.1	32.4	48.8	8.0	19.8
Equity Dealers	206.5	304.0	0	0	.4	0	9.8	.6
Debt Dealers	32.4	41.9	.1	.1	$ 21.3	$ 33.4	10.6%	18.9%

1/ Fails are average of fails to deliver and fails to receive.

Exhibit G-20

Customer Losses and Exposure of Sampled Firms
Three-Quarters Compared to October, 1987

	Customer Receivables ($millions)		Unsecured Customer Receivables ($millions)		Unsecured Customer Receivables Percent of Customer Receivables		Losses in Error Accounts and Bad Debts ($millions)		Losses in Error Accounts and Bad Debts Percent of Total Expenses	
	3Q 1/	Oct	3Q 1/	Oct	3Q 1/	Oct	3Q 2/	Oct	3Q 2/	Oct
Total Sample	$44,281.8	$46,888.4	$644.8	$1,382.1	1.5%	2.9%	$42.2	$313.9	1.2%	8.6 %
National Full Line	23,233.1	24,252.7	438.6	814.9	1.9	3.4	31.9	160.0	1.7	7.7
Large Investment Bankers	15,673.8	17,454.9	141.4	395.0	.9	2.3	7.9	81.0	.7	7.0
Other Large Firms	2,427.2	2,578.2	40.4	85.8	1.7	3.3	1.0	12.4	.5	6.4
Brokers	2,905.4	2,516.5	24.3	86.5	.8	3.4	1.4	60.4	.9	25.4
Equity Dealers	0	0	0	0	NA	NA	0	.1	0	.8
Debt Dealers	$ 42.3	$ 86.0	$ 0	$ 0	0%	0%	$ 0	$ 0	.3%	(.1)%

1/ Average of balance sheet item at end of first, second, and third quarters of 1987.
2/ Monthly average of expense items for the first nine months of 1987.