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A Critical Look at SIPC

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Throughout most of its U.S. history, operation of the securities market has been directed by private associations with very little government regulation or interference.

This situation changed after the Crash of 1929, when an estimated \$50 billion stock market loss triggered the Great Depression and ended the government's hands-off attitude.

Since the Depression, Congress has enacted a number of measures, including the Securities Act of 1933 and the Securities Exchange Act of 1934, that have been designed to stabilize the stock market and to protect investors.

Continuing in this tradition, Congress in 1970 passed the Securities Investor Protection Act (SIPA) and established the Securities Investor Protection Corporation (SIPC) as an industry-funded, nonprofit, membership corporation that offers limited protection to investors.

As of year-end 1986, SIPC had 11,305 members, including all firms registered as broker-dealers with the Securities and Exchange Commission (SEC) and all members of the national securities exchanges.

In this *Economic Commentary*, we shall outline briefly the events that led to the establishment of SIPC, placing an emphasis on the mechanics of securities trading in 1970. We shall then proceed to an analysis of the rationale for such an insurance mechanism by discussing the role that SIPC might be expected to play in response to disruptions in the securities industry. Finally, a comparison with other financial insurance programs leads to an assessment of SIPC's exposure to loss.

Background

In the wake of the Great Depression, the securities industry settled into a new, highly regulated environment. The public's indifference towards private financial instruments helped to slow growth in the industry. Despite the rapid increase in the amount of U.S. Treasury obligations associated with the financing of the Second World War, the dominance of the Federal Reserve and commercial banks over the securities market served to limit opportunities for broker-dealers to expand.

The only noteworthy attention received by the securities industry in the postwar years resulted from charges of price-fixing against a few powerful underwriters.¹ For nearly 30 years thereafter, there were no significant disruptions in the industry.

Interest in the securities markets, as measured by equity trading on the New York Stock Exchange (NYSE), resumed at a slow pace in the period following the Second World War. Average daily volume on the Big Board stood at 1,422,000 shares in 1945, at 1,980,000 shares in 1950, at 2,578,000 shares in 1955, and at 3,042,000 shares in 1960.

The increased trade in securities was accompanied by several isolated failures of small dealers and brokers. The first post-Depression failure, in 1960, was allegedly the result of a "partner's illegalities." In 1963, a second failure, a byproduct of the "Great Salad Oil Scandal," found the New York Stock Exchange paying \$9.5 million in reimbursements to the failed firm's customers.

To maintain confidence in the financial markets, the New York Stock Exchange subsequently established a fund, with initial assets of \$10 million and a \$15 million line of credit, to compensate customers of failed firms for losses that resulted from theft or fraud. The other exchanges followed the NYSE's lead and also established customer protection funds. The exchanges, however, were under no legal obligation to settle any claims.

By 1965, the average daily volume on the New York Stock Exchange rose to 6,176,000 shares; by 1968, it reached 12,971,000 shares. The dramatic growth in trading volume over this period led to what was referred to as the "paperwork crunch." At that time, securities transactions were processed by hand. Brokerage firms maintained a "cage" in which cash and certificates were physically stored and exchanged, sometimes leading to settlement mismatches as trading volume grew.² The level of so-called "fails-to-deliver" incidents, in which a firm fails to deliver securities within five business days (then a rather common occurrence), exceeded \$4 billion at the end of 1968.

Responding to the turmoil caused by the increased trading volume and lack of automation, the major exchanges initiated "trading holidays" on Wednesdays throughout the second half of

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The views stated herein are those of the author and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.

1. U.S. v. Morgan, 118 F.Supp. 91 (S.D.N.Y. 1953).

2. Firms in New York (and the Federal Reserve Bank of New York) still have cages—certificates of deposit (CDs) and banker's acceptances (B/As) are traded for physical delivery.

1968. The New York Stock Exchange also established the Central Certificate Service, the forerunner of the Depository Trust Company of New York today. The Certificate Service replaced a sorting center that had responsibility for the processing and actual delivery of securities. The Central Certificate Service was an intermediate stage of the evolution from the physical transference of securities to electronic bookkeeping, which rendered the cages obsolete.

A few small-firm failures in 1969 were covered adequately by the assets of the NYSE's trust fund. Several larger failures and amalgamations throughout 1970, however, forced the NYSE to replenish the customer protection fund from its general fund, calling into question the ability of the NYSE's general trust fund to withstand further failures by its members. Many of the failures of that era involved violations of the exchange's net capital requirements; members were required to maintain "net capital" in excess of 5 percent of their liabilities.

In June 1970, Congressional hearings were initiated to investigate the history and adequacy of the NYSE's and the other exchanges' funds. Supported by recommendations from industry representatives, the Congressional subcommittee found that risks to the financial system arising from a loss of public confidence in the existing broker-dealer network were large enough to warrant public-sector involvement. Thus, in December 1970, the Securities Investor Protection Act became law, establishing SIPC, an industry-wide replacement for the troubled funds previously created by each of the separate exchanges. The Act was amended in 1978 to streamline procedural shortcomings in the settlement of customers' claims and to increase coverage limits.

Not a Regulator

SIPC is not a regulatory agency; instead, it is subject to SEC and Congressional oversight. It has a board of seven directors who serve three-year terms. The directors include one representative each from the Board of Governors of the Federal Reserve System and from the Department of the Treasury, three individuals associated with different aspects of the securities industry, and two individuals (one of whom serves as the chairman) not associated with the securities industry. The latter five individuals are appointed by the President of the United States and confirmed by the U.S. Senate.

SIPC was created to promote investor confidence in the securities industry by insuring customers of failed brokerdealers against losses due to missing cash and securities. Currently, the protection limit for a customer against loss totals \$500,000. This limit includes \$100,000 of protection against claims for cash.³ Of course, securities on hand that are identifiable as fully-paid-for property of customers need no protection and are returned to customers.

The term "customer" is intended to refer to individuals or firms with claims on the broker-dealer arising out of ordinary business dealings. Such dealings include purchases or sales of securities or the safekeeping of securities and any cash balances maintained for purchases or sales. Providers of capital, noncustomer creditors, or persons with claims subordinated to those of the firm's general creditors are not considered customers. The failed firm's general partners, officers, directors, owners of at least 5 percent of the firm's equity, and participants in at least 5 percent of the firm's net profits are excluded from customer protection.

A "failed firm" is defined as one that is declared bankrupt, that is forced into liquidation or receivership by any agency of the United States (or any state), that is in violation of the Securities Exchange Act or the rules of the firm's self-regulatory agency, or that is unable to establish its compliance with applicable laws and rules. Faulty record keeping, often accompanied by fraud, appears to be one of the most prominent factors leading to the demise of members of SIPC. Poor record keeping also often causes some delay in the settlement of customers' claims. By year-end 1986, 53 of the 197 proceedings ever initiated under SIPA

remained unsettled because of so-called problem claims and/or litigation. Criminal action has been taken in 66 cases.

A failed firm is brought to SIPC's attention by the SEC or the relevant self-regulatory agency (such as the NYSE, the American Stock Exchange [AMEX], or the National Association of Securities Dealers [NASD]). In most cases, unless the failed firm is merged into an ongoing firm that agrees to assume the losses of customers, the failed firm simply is liquidated. Most liquidations are not performed directly by SIPC, but rather under the direction of a SIPC-appointed or court-appointed trustee. The difference on the filing date between the market value of the securities or cash claims of customers (less securities or cash owed by customers) and the value of the failed firm's holdings is satisfied out of the SIPC fund.

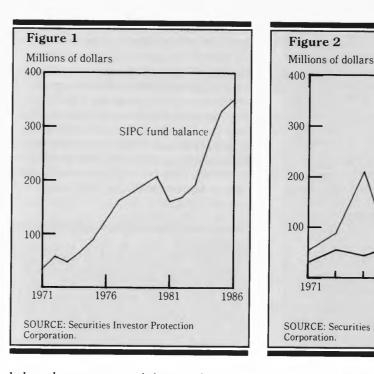
This procedure differs from an ordinary bankruptcy proceeding because SIPC stands ready to pay customers in full at once; in bankruptcy proceedings, claimants of failed firms must stand in line for a pro rata distribution as trusteeship or receivership proceeds. Although SIPC protection covers most types of securities (including stocks, bonds, notes, and CDs), commodity contracts and commodity options are not covered.⁴

The Securities Investor Protection Act specifies that the resources of the SIPC fund shall be maintained at a minimum of \$150 million, an amount reached in 1977; bylaws passed in 1985 raise the minimum to \$250 million. SIPC is authorized to assess premiums on its members. These premiums are traditionally calculated as an adjustable percentage of each member's gross revenues from commissions, underwriting, and trading activity. The premiums are not specifically adjusted for each firm and are collected by a member's self-regulatory organization or, if none exists, by SIPC.

The assessment rates are adjusted periodically by SIPC directors, depending upon the condition of the fund and upon the amount of expected customer settlements. If fund resources fall

also maintain
mer coverage
s increasedfor customers' missing securities) and is separate
from fidelity insurance, which is designed to pro-
tect against fraud or other illegal activities.





below the statutory minimum, the assessment rate is adjusted to replenish the fund. Beyond this minimum level, SIPC's board of directors has considerable leeway in setting the assessment. Because of the fund's relatively high value (around \$380 million at year-end 1986), annual assessments were set in 1986 at a token \$100 per member. The fund currently holds only cash and U.S. Government securities. Interest on the fund's holdings contributes significantly to its growth.

In addition to its customer protection fund, SIPC has at its disposal two sources of external financing. Through a consortium of banks, it has arranged a \$500 million revolving line of credit. SIPC also has the authority to borrow up to \$1 billion from the SEC (which, in turn, would have to obligate itself to the United States Treasury in order to obtain the funds).

Customer Settlements

The size of SIPC's reserve fund is a result of past assessments and payout experience. A time-series plot of the year-end levels of the fund is presented in figure 1. Figure 2 shows SIPC's payout experience, based on the 138 proceedings completed as of year-end 1986. The distributions ascribed to 1985 and 1986 are somewhat understated, however, reflecting the fact that several proceedings were uncompleted.

The fund balance is superimposed in figure 2 to show that episodes of high payouts cause subsequent reductions in the fund level. The worst year was 1981. Only 10 firms failed that year, but the largest failure cost more than \$26 million. Customer settlements for the year exceeded \$63 million. As a proportion of the fund's assets, however, its third full year of operation

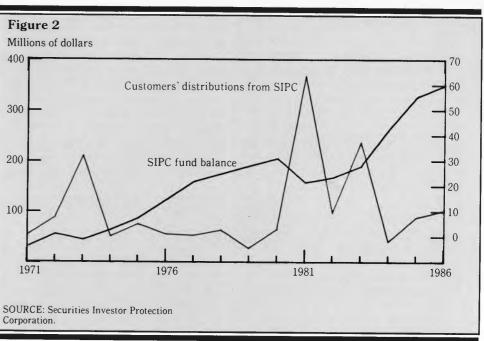
As a proportion of the fund's assets, however, its third full year of operation (1973), in which 30 firms failed, posed the biggest threat to SIPC. The distributions during the year of over \$31 million represented almost 56 percent of the fund's 1972 year-end balance. Although 40 firms failed during 1972, SIPC distributed only \$7 million to their customers.

At SIPC's inception, customers were protected against missing securities worth up to \$50,000 and had coverage for cash claims up to \$20,000. In 1978, these respective limits were increased to \$100,000 and \$40,000. In 1980, they were raised to the present \$500,000/ \$100,000 levels. It is possible, therefore, that historic payout levels might have been somewhat higher had the current protection limits been in force. The relatively large number of proceedings in SIPC's early years has been offset somewhat by the small number

ceedings in SIPC's early years has been offset somewhat by the small number of yearly failures over the past decade. The 197 member failures experienced over SIPC's 16-year history represents just under one percent of the 22,600 broker-dealers ever affiliated with the corporation. Perhaps the most important factor in SIPC's recent experience is that no member firm of substantial size has failed within the past 10 years. The absence of large-firm failures may have created a certain amount of complacency about the adequacy of SIPC's resources.

3. If accounts are held by one customer in separate capacities, coverage limits apply separately to each account.

4. Many of SIPC's larger members also maintain private insurance to raise per-customer coverage limits to several million dollars. This increased coverage applies only to SIPC-type claims (that is



Rationale for SIPC

Broker-dealers are commonly thought of as financial intermediaries, providing ultimate savers (households, businesses and government) with access to various investment opportunities. Brokers bring together buyers and sellers of securities; dealers actually take positions, risking their own capital by purchasing securities. Though many dealer activities, notably securities underwriting, involve significant risk-taking, other activities closely resemble the deposit-taking function of commercial banks.

It could be argued that SIPC's role in supporting public confidence in the securities industry helps provide broad and deep securities markets by assuring maximum dispersion of ownership. The increased specialization in the allocation of risk is thought to lower the cost of physical investment and to increase overall economic efficiency. If the smooth functioning of the securities markets indeed is necessary for public benefit, then there may be cause for public-sector involvement in the settlement of claims on broker-dealers, perhaps to the point of government assistance if an industry insurance fund became insolvent.

Unfortunately, the issue of public necessity is not addressed easily. Opponents of government financial assistance to SIPC might argue that the benefits of increased investor (customer) safety accrue mainly to the securities firms themselves. In this view, the presumed inadequacy of SIPC resources to cope with the liabilities thrust upon it due to the wrongdoing of any single large member, let alone the liabilities from more than one large member, would constitute at least prima facie evidence that premium collections have been too small or that protection limits have been too great. It is to the securities industry's advantage, after all, to minimize disruptions associated with a loss of public confidence, which could be potentially manifested as "runs" on securities dealers.

Government involvement might be justified if one could show that disruptions would inevitably lead to a severe bear market instead of simply being limited to certificate withdrawals. Though causation is difficult to determine, past experience suggests that broker-dealer failures may actually be associated with bear markets.⁵

Drawing the argument to a conclusion, opponents of public assistance to SIPC might say that the maintenance of investor confidence is best accomplished by establishing strict rules of conduct and by extensive self-policing. Industry-funded insurance schemes, such as SIPC, would be expected to operate with a minimum of publicsector involvement or support. Thus, government assistance to SIPC might be desirable and convenient, at least from the perspective of the member firms, but it is not always necessary from the perspective of the broad public interest.

The position in favor of extensive self-regulation partly reflects the spirit of the Securities Exchange Act of 1934. Specifically, the SEA stresses selfregulation on the part of the securities industry. Because the exchanges and NASD already had sufficient supervisory capability, the SEC was created to provide regulatory oversight. Beyond reducing redundancy, this system also served to protect the Treasury's exposure to loss in the industry.

Among the dangers associated with an investor protection plan is that uninformed investors might mistakenly think that coverage extends to the market value of their securities, thereby encouraging insufficient investor scrutiny of broker-dealers and reckless behavior on the part of the firms. This is a variant of the moral hazard argument used against insurance protection in general, and against deposit insurance protection in particular. Moreover, this type of protection may allow inefficient firms to survive longer than would be the case with unfettered markets.

SIPC and Federal Deposit Insurance

The insurance provided by SIPC differs in many respects from that provided to commercial bank or savings and loan (S&L) depositors either by the Federal Deposit Insurance Corporation (FDIC) or by the Federal Savings and Loan Insurance Corporation (FSLIC).

First, the FDIC and FSLIC either have regulatory powers themselves or have affiliated authorities, such as the Federal Home Loan Bank Board, that have such powers and that maintain close supervision of their members. SIPC, on the other hand, must rely on the SEC or its members' self-regulatory organizations for supervision and regulatory control.

Second, when a bank or thrift institution fails, the federal deposit insurer typically acts as the receiver, supervising the liquidation or, possibly, the merger of the failed firm with a healthy one, often with financial assistance from the insurance fund. Such failures usually occur, for instance, when an institution's loan portfolio has an excess of problem loans, when it faces severe liquidity problems, or through management fraud or neglect.

More importantly, federal deposit insurance funds guarantee (currently up to a stated maximum coverage of \$100,000 per account) the full value of insured deposits in the event of a covered institution's insolvency. The determination of the insurer's residual liability usually is straightforward because banks and S&Ls carry deposit liabilities, and most assets on their books, at par value. The protection afforded by SIPC, on the other hand, is offered simply against missing securities owed to the customers of a failed broker-dealer. The value of a customer's claim, however, is determined by current market prices, which change as often as market conditions change. SIPC coverage does not protect customers from changes in the market value of their securities after a member firm's failure.

Furthermore, the deposit insurance premium charged to an insured institution is computed as a percentage of its total deposit base, unlike the revenuebased (or flat-rate) premium charged to SIPC members. The FDIC, for instance, charges members a rebatable onetwelfth of one percent of total deposits.

Finally, the federal deposit insurance funds claim to be backed by the full faith and credit of the federal government. SIPC has to avoid making this particular claim.⁶

Fund Exposure

One of the difficulties encountered in comparing SIPC-type coverage and deposit insurance is in determining the insurer's exposure to risk. The value of total insured deposits approximates the level of a federal deposit insurance fund's exposure. In practice, however, many general creditors of depository institutions have been granted de facto 100 percent insurance in recent years, so that the true exposure of the deposit insurance funds is somewhat greater than the total of insured deposits. SIPC, on the other hand, rarely extends its coverage to noncustomers, as determined either by itself or by a court.

The total exposure of a financial insurance mechanism, however, is only one determinant of the adequacy of its resources. On an actuarial basis, it is necessary for the present value of future premiums to at least equal the present value of expected future claims. The role of the insurance fund is to allow for deviations from expected payouts. An insurance system faced with a claims stream with a high variance will need a larger fund than a system facing a less volatile payout stream.

Ideally, the insurer's revenues rise when the industry experiences strong growth—and is therefore most able to finance the fund's needs—and fall during difficult periods. This pro-cyclical premium strategy minimizes the overall burden of the insurance mechanism. The revenue-based premium of SIPC members, though perhaps unrelated to the risk involved, has fallen precipitously just as the industry is experiencing enormous growth and increased risk.

Furthermore, not all financial insurance mechanisms are designed to protect against the same type of risk. A bank depositor may depend on the backing of an insurance mechanism because the use of deposited funds is completely relinquished. In the absence of insurance, the depositor would be subject to the underlying risk of the institution's assets.

^{5.} SIPC's 1985 annual report cites its origin in the difficult years of 1968-70, when "the paperwork crunch, brought on by unexpectedly high volume, was followed by a very severe decline in stock prices."

^{6.} We should note, however, that Congress has not yet made a legally binding commitment to provide the necessary funds to fully guarantee the ailing FSLIC.

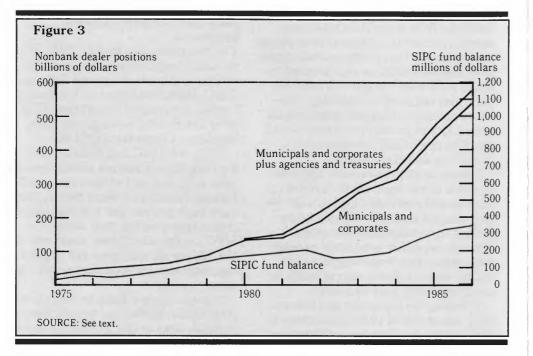
On the other hand, a broker-dealer fully complying with existing securities regulations does not subject the customer to the type of risk SIPC insures. The qualitative differences between risks limit the insight provided by direct comparisons with deposit insurance. For illustrative purposes only, however, we provide here a comparison between SIPC's potential exposure and that of the FDIC.

Since 1950, the FDIC's fund balance has ranged between 1.15 and 1.50 percent of total insured deposits. An analogous figure for SIPC is not readily available, since there are no published estimates of the aggregate value of securities holdings for customers by all SIPC members. A proxy for this figure that may serve as an upper bound to the insurance fund's exposure can be constructed from data maintained by the Depository Trust Company (DTC) and the Federal Reserve System.

The Depository Trust Company is a participant-owned corporation that serves as a securities depository for a major portion of the financial industry. DTC is regulated by the SEC, the New York State Banking Department, and the Federal Reserve. DTC holds actual securities and issues its own bookentry receipts for them. Exchanges of DTC receipts facilitate the change of ownership of securities. DTC also provides securities registration, or ownership information, to publicly traded firms and to others. DTC traditionally accepted only corporate bonds and shares of stock for deposit. Since 1981, however, its operations have been expanded to include municipal bonds.

DTC maintains records of the value of securities on deposit for its 357 broker-dealer participants. Similar records are kept for banks (DTC's largest participant group) and for clearing agencies. Presented in figure 3 are the year-end balances (at market value) of all corporate and municipal securities held at DTC for nonbank brokerdealers. Because this aggregation does not distinguish between securities held for a broker-dealer's own account and securities held for its customers, or between the portion of customers' securities that are insured and those that exceed insurance limits, the aggregation may overestimate SIPC's exposure by an unknown amount.

Also shown in figure 3 are the yearend positions in U.S. Treasury securities and Federal Agency obligations (most notably, mortgage-related securities) for the nonbank, nonbroker-dealers designated as primary dealers by the



Federal Reserve Bank of New York. Although there were only 21 firms with this particular designation (as of June 1986), they are among the largest securities dealers. Primary dealers facilitate the implementation of monetary policy through open-market operations in government securities and help to underwrite the huge borrowing needs of the federal government. Just as with DTC's data, we cannot distinguish between holdings for customers and positions taken for the primary dealers' own trading accounts.

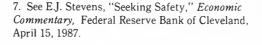
Estimates of nonprimary brokerdealer positions in government securities currently are not available. Several recent failures of previously unregulated government securities dealers led Congress to enact the Government Securities Act of 1986, covering participants in this market.⁷ As a result, a large number of government securities dealers will be required to register with the SEC. At present, however, there is no way of knowing just how many firms will choose the registration option that automatically would make them members of SIPC, and that would automatically increase the risk-level of its insurance fund.

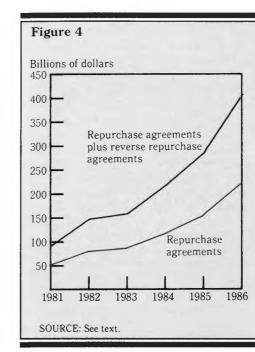
The past can provide a clue about the potential increase in risk. The data at our disposal indicate an almost eighteen-fold increase in the potential exposure of SIPC over an 11-year period during which the SIPC insurance fund balance only quadrupled. It should be noted that this period partially covered the planned buildup of the SIPC fund to its old statutory min-

imum of \$150 million. On the basis of our estimates and assumptions, the level of the SIPC fund at year-end 1986 represents only 0.06 percent of its potential exposure.

Of special importance to this analysis is the implication of last year's ruling on the status of counterparties with whom member firms have engaged in repurchase and reverse repurchase agreements. SIPC had considered such counterparties general creditors because repurchase and reverse repurchase agreements often are used by broker-dealers as financing vehicles for their securities inventories. In a typical repurchase agreement, the brokerdealer sells selected securities to a counterparty with an obligation to buy (or repurchase) them at a later date at a specified (higher) price. In essence, the firm obtains a loan from the counterparty. The typical reverse repurchase agreement has the broker-dealer purchase selected securities, hold them for a short period, and then resell them to the counterparty. This practice can be interpreted as a short-term loan by the firm to the counterparty.

Last year, however, a U.S. District court in New Jersev held that these agreements constitute contracts for the sale and resale of securities. This means that repurchase and reverse repurchase agreement counterparties





are "customers" entitled to SIPC protection. Although SIPC may appeal this ruling, estimates of its current level of exposure should be adjusted for the level of repurchase and reverse repurchase activity of its members.

Weekly averages of the level of repurchase and reverse repurchase agreements, in terms of the value of securities used as collateral, are available for the nonbank primary dealers from the Federal Reserve Bank of New York. The annual average levels of the two types of agreements are presented for

8. This and the earlier estimate should not be interpreted as the author's appraisal of SIPC's mation, these figures are offered only to stimu-

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actual exposure. In the absence of detailed inforlate discussion on this issue.

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generation of financial instruments may have further broadened the scope of SIPC's liabilities. Many of these new instruments are of the so-called assetbacked variety, and cover such items as

1981 through 1986 in figure 4. In terms of year-end levels, this six-year period witnessed a quadrupling of the combined outstanding volume of these contracts to more than \$460 billion, raising SIPC's potential exposure to over \$1 trillion. Of course, these figures would be somewhat greater if we included the remaining SIPC members. Combining the estimates and assumptions associated with these securities agreements with the estimates and assumptions previously advanced, it then appears that SIPC's fund currently represents coverage for only 0.03 *percent* of its total potential exposure.8

The implications of the repurchase and reverse repurchase agreements ruling for SIPC go beyond the absolute increase in exposure to the higher risks associated with these financial contracts. Poor record keeping and fraud has led to several failures of unregulated government securities firms in the past.⁹ Congress responded to these conditions by imposing tighter regulations on all government securities firms, though several provisions of the Government Securities Act of 1986 have yet to be implemented. The recent emergence of a whole new automobile receivables and credit card payment obligations as well as

"stripped" securities, often applied to mortgages and other debt instruments. In most cases, these instruments are obligations of the institution performing the securitization or stripping, and lack the full backing of the underlying issuer. Although these securities were not included in our estimates of SIPC's exposure, they too must be considered in any discussion of the fund's adequacy and risks.

Conclusion

Several issues connected with SIPC are worth considering. First, the nominal level of its members' annual assessment may result in the slow depletion of its insurance fund-especially in view of the corporation's payout experience.

Second, considering the current size of the securities industry and the nature of some of SIPC's new exposures, the statutory \$250 million minimum level of its insurance fund is probably too low.

Third, in the event of severe losses in the securities industry, it is quite possible that SIPC would be unable to meet its insurance obligations. In that event, the federal government most likely would step in to assist investors, even possibly shifting some of the financial burden to taxpayers.

The urgency of addressing these problems, however, rests on certain assumptions about the proper role of investor protection and the extent of appropriate government involvement in it. These are issues that sooner or later must be addressed by the securities industry and our nation's legislators.

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^{9.} Notably ESM Government Securities, Inc.; E.J. Stevens, op cit, lists all of them.

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