

MEMORANDUM

March 31, 1980

TO: Daniel L. Goelzer, Executive Assistant
Office of the Chairman

FROM: Steven E. Levy, Director *SEL*
Directorate of Economic and Policy Research

SUBJECT: Dependence of Options Market on Investor or Speculative Activity

In a news clipping you recently sent me there was a quotation attributed to Mr. Leo Melamed, special counsel for the Chicago Mercantile Exchange, that to be viable "a futures market must have probably at least 50 per cent investor or speculative activity." You have inquired as to the validity of this statement and its applicability to the options markets.

On March 18, 1980 I received a copy of a memorandum of the same date from Doug Scarff to Chairman Williams, Re: "Need for Speculative Activity in the Futures and Options Markets." That memorandum addressed, in a very thorough manner, the questions you have raised. I would add only three points to the discussion contained therein.

First, while Mr. Melamed's comment did not refer to the extent of actual speculative activity in the futures markets, there does exist some empirical data concerning such activity. In particular, I would direct your attention to the attached article, entitled "Interest Rate Futures" from the Winter 1979-80 edition of the Federal Reserve Bank of New York Quarterly Review. The thrust of this article is that the financial futures markets have, in fact, attracted a very substantial speculative interest on the part of individual investors. Citing two studies by the Commodity Futures Trading Commission ("CFTC"), the article reports that individual investors and commodity pools held nearly half of the open positions in financial futures as of March 30, 1979. ^{1/} Whether this means that the viability of the financial futures markets is dependent on such interest is not clear.

Second, Doug Scarff's memorandum presents the argument that the greater the predictability of the price of a stock or a commodity the greater will be the need for speculators in the corresponding options or futures markets,

^{1/} The first study, entitled "Futures Trading in Financial Instruments," was published in October 1978, and the second study, entitled "Survey of Interest-Rate Futures Markets," was published by the CFTC in December 1979. Copies are available upon request.

because all of the hedgers will be on one side of the market. The problem with this argument is that the non-predictability of price is the raison d'être of an options or futures market. The more predictable the price, the less need there is for hedging and, hence, the less need there is for an options or futures market. Thus, the need for speculative activity would appear to rise and fall with the need for hedging, which is determined by the non-predictability of the price of the underlying stock or commodity.

Third, and finally, it should be noted that, although options and futures are functionally similar, the leverage attainable with futures is much greater than that attainable with options. The initial margin on a futures contract calling for the delivery of \$100,000 of GNMA certificates can be as little as \$1,500, and on a futures contract for \$1,000,000 of 90-day Treasury bills the initial margin can be as small as \$800. ^{2/} In contrast, no credit may be extended for the purchase of an option. ^{3/} Moreover, an investor who writes an uncovered option must deposit at least 30% of the value of the underlying stock, plus the amount the option is in the money or minus the amount the option is out of the money. ^{4/} These more stringent credit requirements make speculative activity in options more costly than such activity in futures and, therefore, may tend to discourage some speculation in options.

If I can be of further assistance in regard to this matter, please feel free to contact me.

Attachment

cc: Chairman Williams
✓ D. Scarff

^{2/} According to the March 3, 1980 edition of Barron's, the minimum initial margin on \$100,000 (face amount) of 8% GNMA certificates purchased on the Commodity Exchange, Inc. ("COMEX") is \$1,500, and the minimum initial margin on the purchase of \$1,000,000 (face amount) of 90-day Treasury bills on either the AMEX Commodities Exchange or the COMEX is \$800.

^{3/} 12 C.F.R. 220.8(f).✓

^{4/} 12 C.F.R. 200.8(j).