

THE CASE FOR AN AUSTRALIAN STOCK INDEX FUTURES CONTRACT

by

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Recent U.S. proposals for futures contracts on stock indexes must overcome some legal impediments which do not have the same force in Australia. The potential uses of a stock index futures contract in Australia are explored in this paper and it is argued that it would offer a better alternative than short-selling in coping with the impact on a portfolio's value of a serious market decline. It is concluded that the proposal is worthy of further examination and discussion.

The success of futures trading in financial instruments in the United States has encouraged several exchanges to seek approval for futures contracts on stocks. The Chicago Mercantile Exchange has proposed a contract based on the Standard and Poor's 500 stock index, the Chicago Board of Trade has suggested several market index futures contracts and the Kansas City Board of Trade proposes a contract based on the Value Line Composite Index. Several legal problems impede the speedy introduction of these contracts in the United States, in particular, whether the contracts concerned would come under the jurisdiction of the Commodity Futures Trading Commission or of the Securities and Exchange Commission and whether the United States legal provisions for futures contracts, that assume likelihood of actual delivery by both buyers and sellers, could be varied to permit cash settlement. These difficulties seem certain to delay implementation of any of the proposals mentioned above in the United States, perhaps for several years.

However, these legal difficulties are not serious impediments to the establishment of stock index futures in Australia and there is a very positive additional benefit to be gained in Australian markets that does not arise in the United States, in the provision of a facility analogous to short selling, without that practice's attendant dangers. Cash settlement in Australian dollars is the only form of "delivery" recognized under foreign currency futures contracts traded on the Sydney Futures Exchange and cash settlement is all that would be necessary in the case of stock index futures. A conflict of interest between stock and futures exchanges here seems unlikely to

eventuate as both could gain from joint sponsorship of these contracts.

The additional benefit that can be gained in the Australian situation is that it would be possible to sell a stock index contract in order to profit from an anticipated decline in the stock market, a possibility prevented in the Australian stock market itself by the prohibition on short selling. This benefit offers particular advantages to professional portfolio managers in allowing them to protect the value of a portfolio in a situation when they believe the market will decline.

The advantages of futures trading for institutions do not seem well appreciated yet in many parts of the Australian Financial sector except perhaps for those institutions aggressively oriented in performance. Any doubt on this point must be overcome by the persistence of cash-and-carry returns at relatively high levels on certain futures contracts during the past few years without attracting any significant or sustained interventions by arbitrageurs. It may be that the establishment of a stock index futures contract which is able to fill a number of existing gaps in management of stock portfolios will act as a catalyst that leads to a widening use of futures markets.

To be of maximum use, the stock index on which the futures contract is based must be a representative market index — the ASE All Ordinaries Share Price Index, for example, may not be as good as the Australian Accumulation Index for use in this context. For a portfolio that contained the precise index mix of stocks, selling a stock index futures contract has the

effect of locking in a future portfolio value and transferring the entire risk of market fluctuations to the buyer of the futures contract. For portfolios that represent a combination of market stocks but not the combination represented by the index, the effect of using stock index futures contracts will depend on the proportion of market risk represented in the portfolio. A majority of the risk in a portfolio containing more than 10 stocks will be market risk. Niederhoffer and Zeckhauser note (5, p.55) that "85% of the variability of the returns in individual mutual fund and portfolios is explained by movements in the [stock price] averages".

The terms of a stock index futures contract based on the ASE All Ordinaries Index could be 100 units of the index measured in Australian dollars. At the late February 1982 level of 532.5, a contract of 100 units would be valued at \$53,250. The minimum fluctuation in the contract's value could be set at 0.01 per cent of the value of the index. Following the usual pattern of interest rate futures trading, contracts for the spot month plus the next five consecutive months then March, June, September and December out to two years ahead could be offered. The delivery arrangement could be for all open contracts to be settled at a price 100 times the ASE Index figure two days prior to the expiry of trading in the contract. United States proposals suggest that round-trip commissions would be about 0.12 per cent of the underlying value of the contract. Certainly the transactions costs of varying the risk of a large portfolio by using stock index futures contracts promise to be very much lower than varying directly the mix of stocks in the portfolio itself.

The main use of stock index futures contracts is to enable portfolio managers and other investors to neutralize the large swings in stock market values, for example the decline in the ASE All Ordinaries Index from 670.2 in February 1981 to 532.5 in February 1982. This neutralizing process is achieved by using stock index futures contracts to vary the risk and return characteristics of a stock portfolio without changing its composition. In Australia the use of stock index futures contracts to hedge against market declines would provide portfolio managers with a way of protecting the value of a portfolio in circumstances where a market decline is feared without precipitating that decline by selling off the portfolio. By selling a stock index futures contract (or multiples thereof) so that the beta proportion of the portfolio, (or the extent to which the value of the portfolio has, on past information, varied with the market) is covered, in the event that the market does decline the profit made by

completing the futures transaction would offset the loss made on the market value of the portfolio. For the cost of selling stock index futures the portfolio manager is able to eliminate some, if not all, of the market risk of his portfolio.

A further use of stock index futures by portfolio managers lies in their use to separate a stock's market-related performance from its company-specific performance. For example if the portfolio manager's investment analysts advise that they believe stock A is presently very undervalued in the market but that it has a high beta, the stock could still be purchased even in the face of a threatened decline in the stock market, provided that stock index futures contracts equal to the beta proportion of the purchased stock's value were sold short.

In situations like the present when the stock market index is at depressed levels stock index futures contracts provide a cheap way of augmenting the returns available on an existing portfolio should the market improve over, say the next eighteen months. The procedure to be followed by a portfolio manager who did expect the market to rise is to buy stock index futures contracts maturing in eighteen months and to close out the transaction either at that time or close out earlier if the market does rise substantially before that time.

Portfolio managers apart, a number of other stock market participants could profitably trade stock index futures: for example, the underwriters of new issues could use these futures to reduce the considerable risks they face in the event of a market decline during the offering process; and companies planning to make takeover offers could use them to hedge against a general market rise that may raise the value of a target company above the intended bid price. The small investor is provided with the opportunity to gain from both rising and falling stock markets and to protect the value of his investments by the use of stock index futures contracts.

One danger to which some futures contracts here and overseas have succumbed is the lack of both "sides" to a market, that is, the lack of sufficient buyers and sellers to create a deep and continuous market. This danger does not appear to be a threat in the case of a stock index futures contract as speculators as well as hedgers will be able to benefit from this additional means of participating in, profiting from or protecting against stock market movements. Manipulation or cornering of a stock index futures market would be prevented because the value of the contract is based on the prices of a very large number of stocks.

Several objections have been raised to the introduction of stock index futures in the United States. Apart from the serious problems of jurisdiction and of delivery or cash settlement mentioned in the introduction to this paper, neither of which are important objections in Australia it has been suggested that the existence of such contracts could destabilize the underlying stock market. Niederhoffer and Zeckhauser argue that the opposite would happen:

“Market index contracts could drain a great deal of speculative activity away from stocks that move strongly in concert with the market. . . . The net result may be much greater stability in the markets for those securities; a whole range of volatile stocks may be expected to act in a much more orderly fashion” (5, p.55).

In Australia the *Final Report* of the Committee of Inquiry into the Australian Financial System recommends (para 21.116) that the National Companies and Securities Commission should examine the feasibility of allowing short selling in the stock market but the restrictions suggested in the Report (21.113 to 21.115) and the opposition to short selling that has surfaced every time it has been suggested does not bode well for an early introduction. Stock index futures contracts, on the other hand, offer a means of achieving the same result as short selling without the risk of disruption to the normal delivery requirements of the stock market.

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