

THE CONVENTIONAL OPTIONS MARKET

by

A. F. T. Payne

Graduate School of Business Administration, University of Melbourne

Whilst a number of recent studies (1-7) have examined specialised aspects of exchange traded options, little has been written about the size and characteristics of the conventional options market in Australia. The aim of this article is to briefly examine the conventional options market.

Introduction

The introduction of exchange traded options on the Australian Options Market in February, 1976, has generated considerable interest in options. Since their introduction and for some time before this, activity in the "conventional" or "over-the-counter" option has been at a very much reduced level. The purpose of this article is to examine the development and decline of the conventional options market to survey some recent efforts aimed at reviving the conventional options market in the U.S.A., and to make some comments on the future of the conventional option.

Early History

Apparently options were available in Australia as early as the late 1920's (8) and a regulation regarding options appeared in the 1930 Rule Book of the Stock Exchange of Melbourne. Whilst option transactions clearly existed, the extent and role of these transactions are not clear. Interviews with present and former members of the stock exchanges suggest that dealing in these options was confined to a few of the more speculative brokers and that it was used mainly as an inter-broker facility. It seems likely that options were not used extensively by the public. Whilst the Stock Exchange of Melbourne kept this regulation in its rule book until 1939, this early form of option trading appears to have been used only during the late 1920's and early 1930's. It was not until 1960 that option trading in its present form was introduced.

Recent History

In 1959 Dr. M. D. Garrety, founder of the first option broking company in Australia, visited the major centres of the world where option trading activities existed. Following examination of options trading in Montreal, Toronto, Amsterdam, New York, London, Frankfurt, Milan and Paris he returned convinced there was scope for options trading in Australia. In 1960 he formed Stock Options of Australia Pty. Ltd., and commenced options trading. The system of trading that was introduced was based on the system operating in the U.S.A. This system of trading in conventional options has been explained elsewhere (9-11) and will not be discussed here.

After a quiet start in the first two years, the options business went through a significant period of growth to 1965. As the market expanded a number of other option broking companies commenced dealing in options. By July 1964 five option companies joined the Option Brokers Association Ltd., with the purpose of forming a united front for the option brokers, ensuring full disclosure of all option transactions and to improve professionalism in the industry through the introduction of rules and procedures for operating option businesses.

Activity then fell for some years and again expanded significantly in the mining boom years. During the height of the mining boom there were twelve option brokers operating, most of whom were members of the Option Brokers Association.

In the bear period following the mining boom option volume decreased dramatically and since 1973 has been at a lower level than in any previous full year of operation.

Size of the Market

In the first few years of option trading no details were published of the number of shares over which options were taken and it

became common to measure the size of the market in terms of the number of transactions. Table I outlines the growth and fluctuations in the option market, in number of transactions, between 1960 and 1976. It also shows the relative popularity of the different types of option; call, put, double and straddle options.

Throughout this period the level of option activity followed fairly closely stock market activity. Figure 1 shows the movement in the Melbourne Stock Exchange All Ordinaries Index and option transactions as a percentage of stock exchange transactions for the period 1962-1974. When the stock market is rising, option activity tends to increase at a greater rate. In 1971, a year which did not follow this pattern, the market receded but option activity was still fairly high. Table I shows that a large number of double and straddle options were written in this year reflecting some uncertainty on the part of option buyers.

Analysis of the options market in terms of number of transactions is only one measure of market size. Other measures of market size include the number of shares over which the option was taken and the "premium dollar volume" (the amount spent on premium). An analysis of options traded over a recent five year period (1970-1974) was undertaken. The results are presented in Table 2 which shows how the option business contracted from its peak year of 1970 in which nearly \$10 million was spent in option premiums on options over 42 million shares to a low, in 1974, of \$611,200 spent on 4 million shares.

The significance, in dollar terms, of the conventional options market compared to the amount spent on ordinary shares is low. Table 3 shows the amounts spent on options and ordinary shares (all stock exchanges) over a three year period 1970/71 to 1972/73. The amount spent on options in each of these years as a percentage of the amount spent on ordinary shares was well below one per cent. The estimates of amounts spent on ordinary shares are from Harris (12).

Some Characteristics of the Market

An analysis of a data set of approximately 27,000 option transactions traded between 1970 and 1974 showed the following characteristics over this period:

- (a) *Type of Option*
Call options were the most popular form of option representing 83.7 per cent of all options traded.
- (b) *Length of Option*
The three month options were the most popular option sought. Some 70 per cent of call options, 43 per cent of put options, 55 per cent of double options and 87 per cent of straddle options were of three month duration. Options of one and six month duration were the next most popular. Fewer than one per cent of options were for lengths greater than six months.
- (c) *Contract Size*
The vast majority (87.6 per cent) of options were taken over share lots of between 200 and 10,000 shares. Option transactions covering less than 200 shares were fairly uncommon and those covering more than 50,000 shares were rare.
- (d) *Price of Contract*
Some 83.2 per cent of option contracts were purchased for less than \$1,000. Only 1.2 per cent of contracts had a purchase price of more than \$5,000.
- (e) *Price of Stock*
Options were traded across a fairly broad range of prices with a concentration on lower priced stocks. 62.3 per cent of transactions were on stocks priced at less than \$1.00.
- (f) *Type of Share*
Options were written over 186 industrial stocks and 351 mining stocks over this period. This represented 15.9 per cent of the 1,169 industrial stocks and 91.9 per cent of the 387 mining stocks listed on Australian Stock Exchanges at January 1972. The number of transactions in the industrial category is extremely small representing only 3.6 per cent of all options written. The majority of options (96.4 per cent) were in mining shares. The degree of option activity in established mining companies was low. Option activity was, on average, twice as great for mining shares not appearing in the lists of the top twenty mining stocks (by value) compared to those companies which were included in the top twenty listing.

Decline of the Conventional Options Market

A relatively high level of stock market activity is necessary to support a viable conventional options market. In the quiet stock market of recent years option activity has declined to an all time low. The introduction of exchange traded options has also had an effect on the conventional options market in both the U.S.A. and Australia. In the U.S.A. the introduction of exchange traded options had a dramatic effect on the conventional options market. Conventional option volume as a percentage of New York Stock Exchange share volume in 1972, the year prior to exchange traded option introduction, was 0.79 per cent. By 1976 this had fallen to 0.03 per cent, a reduction by more than 25 times the volume prior to the existence of exchange traded options.

A similar pattern was followed in Australia. Table 4 illustrates how conventional option volume as a percentage of Sydney Stock Exchange volume has fallen over recent years and dropped dramatically since 1976 when exchange traded options were introduced on the Australian Options Market (A.O.M.) in Sydney.

Conventional Options vs Exchange Traded Options

The increased flexibility, marketability and standardization of exchange traded options make this form of option superior to the conventional option and the A.O.M. options have certainly drawn some of the option business away from the conventional options market. However the A.O.M. options cover only a very limited number of stocks, all of which are heavily capitalised. The conventional options market is heavily concentrated on highly volatile stocks and covers many hundreds of stocks in contrast to the seven stocks currently listed by the A.O.M.

Options of the exchange traded type which are standardized and available on only a limited number of stocks will never satisfy all the needs of all option writers and buyers. Given the current low activity in the market and the relatively inefficient system of trading in conventional options, it is appropriate to consider efforts which have been made to improve this market.

Improving the Conventional Options Market

Efforts have been made in the U.S.A. for some years to improve the conventional options market. "Special" options are a feature of the U.S. market. These options include options already in existence which are put forward for resale. Some of the larger option dealers have sufficient inventory of these special options to place regular advertisements in the financial press offering them for resale, thus creating a limited secondary market in options. However, trading in these special options has not reached significant volume, and a viable secondary market has not been established.

More recently efforts have been made to introduce more efficient trading and clearing techniques for conventional options. One organization in the U.S.A., The Options Organisation, Inc. (O.O.I.) has since 1973 been working towards a computerized system to automate trading in conventional options. The system (13) utilises a computer with continuously active terminals capable of selective interaction with other terminals in the system.

The proposed fully automated trading system would render obsolete many of the trading procedures associated with present trading in conventional options. The trading of an option contract under the O.O.I. system requires entry of a bid and an offer being made on a computer terminal. These bids and offers are anonymous, firm and subject to immediate automated matching. When a match between a bid and an offer is not made the person making the last entry is anonymously notified through the terminal of the respective nearest bid or offer and the two nearest matched entries are automatically placed in negotiation mode. Either the bidder or offerer can break the negotiation at any time and seek another negotiating partner within the system. The system provides for fully automated certificate-less trading with provision for a conventional option contract if required. It also provides for regular reporting and monitoring by regulatory authorities.

The O.O.I. has, however, yet to become an operating entity, probably because of the conflict of interest with the trading personnel who control the operations of the stock

exchanges and who have a vested interest in the maintenance of the status quo. It appears likely that only a major securities firm which would make markets on a low mark-up, high volume basis, possibly using a centralised electronic market (with resulting lower transaction costs) would be able to effect a move towards a more significant and efficient conventional options market.

The Future

The outlook for conventional options trading is extremely bleak at the present time. The low level of stock market activity, the licensing regulations introduced under the Securities Industry Acts, and the introduction of exchange traded options have all led to the decline of the conventional options market in Australia.

Whilst efforts were made by the O.O.I. to interest the American Stock Exchange, the New York Stock Exchange, and the National Association of Securities Dealers in an automated system of conventional options dealings, these efforts have not resulted in their proposals being adopted.

The current organisation of the trading system also contributes to less than the full market potential being realised. The organisation could be much improved by the replacement of the current system of operation which involves inefficient and obscure trading channels and outmoded procedures for clearing and exercising option contracts, with an automated centralised electronic system such as that proposed by the O.O.I. in the U.S.A. The Securities and Exchange Commission is reported to be keen to impose a centralised electronic market on the entire securities market. The possibility of introduction of a similar scheme is also under investigation in Australia.

When these developments come into effect automated options trading could become a practical reality in both the U.S.A. and Australia. When such an automated system is introduced it seems likely the significance of the conventional options market could be increased considerably.

The recent upturn in the stock market, in May 1978, has been accompanied by increased activity in the A.O.M. demonstrating there still exists a significant demand for options in times of high stock market activity.

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- (13) This is fully described in a proposal from the Options Organisation Inc. to the American Stock Exchange dated 26th March, 1973.

TABLES

Payne, A. F. T., "The Conventional Options Market", Unpublished Working Paper, University of Melbourne, 1978.

FIGURE I: PERCENTAGE OF REPORTED OPTION TRANSACTIONS TO NUMBER OF STOCK EXCHANGE TRANSACTIONS ON MELBOURNE STOCK EXCHANGE, 1962–1974 AND ALL ORDINARIES INDEX.

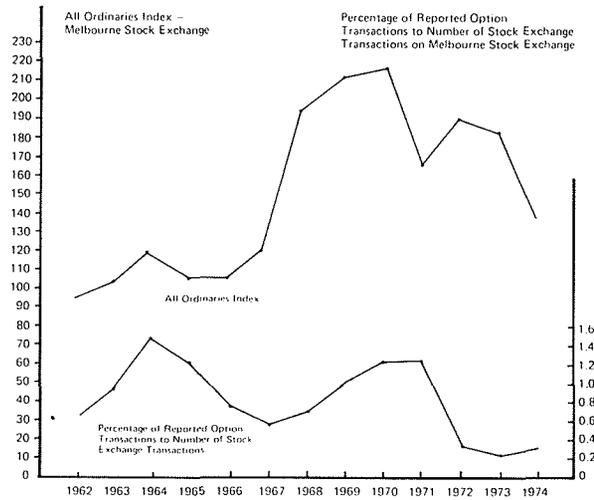


TABLE 1: REPORTED CONVENTIONAL OPTION TRANSACTIONS 1960-1976

Year	Call Option Transactions	Put Option Transactions	Double and Straddle Option Transactions	Total Option Transactions
1960 ⁽¹⁾	10	4		14
1961	1193	166		1400
1962	2702	215		2997
1963	4775	375	140	5290
1964	6888	477	236	7601
1965	3354	595	301	4248
1966	2344	258	101	2344
1967	3249	206	185	3640
1968	6719	194	88	7001
1969	10017	584	411	11012
1970	13605	489	370	14464
1971	5956	367	1644	7957
1972	1577	87	845	2459
1973	902	131	117	1150
1974	811	228	158	1198
1975	765	122	217	1014
1976	438	22	71	531

⁽¹⁾ From December 14th, 1960.

TABLE 4: CONVENTIONAL OPTION VOLUME AS A PERCENTAGE OF SYDNEY STOCK EXCHANGE

Year	Conventional Option Volume (000's of shares)	As Per Cent of Sydney Stock Exchange Volume
1970	42,919	1.6
1971	29,973	2.0
1972	10,802	0.9
1973	5,930	0.7
1974	4,283	0.7
1975	4,246*	0.7
1976	2,042*	0.3
1977 (Jan-June)	46*	0.02

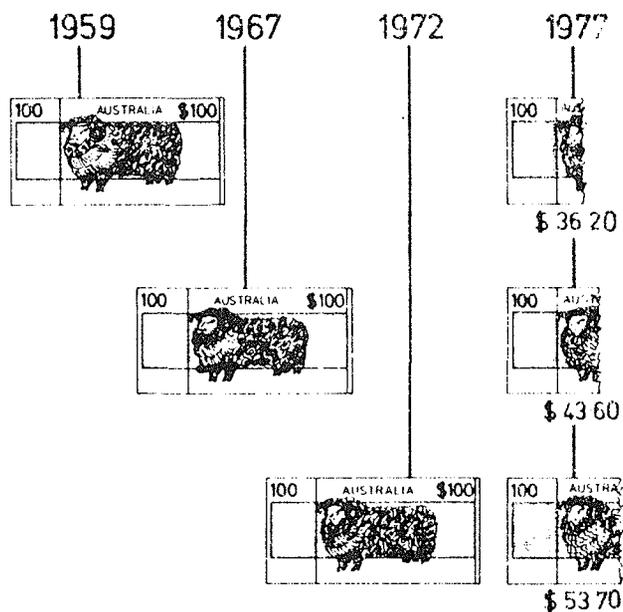
* Estimates based on number of transactions.

TABLE 2: NUMBER OF SHARES OVER WHICH OPTIONS WERE WRITTEN AND AMOUNTS SPENT ON OPTION PREMIUMS

Year	Number of Shares over which Options were taken (Thousands of Shares)	Amount Spent by Option Buyers on Premiums (Dollars)
1970	42,919	9,742,000
1971	29,973	3,093,700
1972	10,802	1,105,900
1973	5,930	565,900
1974	4,283	611,200
Total 1970-1974	93,907	15,118,700

TABLE 3: AMOUNTS SPENT ON OPTION PREMIUMS AND ORDINARY SHARES BETWEEN 1970/71 AND 1972/73

Year	Amount Spent on Option Premiums (\$ million)	Amount Spent on Ordinary Shares (\$ million)	Option Premiums as Percentage of Ordinary Shares
1970/71	6.90	2,599	0.26
1971/72	1.57	1,662	0.09
1972/73	0.79	1,699	0.04
Total 1970/71 1972/73	9.26	5,960	0.15



HOW THE INVESTOR IN "RISK-FREE" BONDS FARED