ASX

AUSTRALIAN SECURITIES EXCHANGE

Equity Exchange Traded Options (ETO) Market

- ETO Market Structure Reform Proposals 2012 - 2014

Contents

1.0 Introduction

- In 2009 ASX began work on a series of ETO Market and Product development reforms that as at the date of this paper are approximately 50 percent complete as follows:
  - Number of ETO Classes cut from 120 to 62
  - Markit dividends for ETO settlement prices and risk margins – Completed on 20 September 2009
  - New market making scheme – Completed on 28 March 2011
  - Single Stock contract size reduction from 1000 to 100 shares – Completed in May 2011
- The above measures have contributed somewhat to the quality and liquidity of the ETO/ XJO market segment:
  - Single Stock Equity Options volumes are up 2.7% in the July-October 2011 period compared to the 2010/ 11FY.
  - XJO Index Options volumes are up 95.8% in the July-October period compared to the 2010/ 11FY.
- The following reforms are scheduled to be implemented within the next 15 months:
  - Introduction of Equity OTC Clearing (Phase 1)* – Go live end April 2012 subject to ASIC approval
  - Enhanced automated ETO Strike listing – Go live beginning of May 2012
  - Increase the number of listed ETO series from 30,000 to approximately 60,000 – Go live beginning of May 2012
  - ASX to ask Quote Requests on all ETO series listed – Anticipated Q3 2012
  - Introduction of Delta/ Vega quoting protection for ETO Market Makers – Anticipated Q4 2012
  - Introduction of Fair Value Settlement for terminating ETO series – Anticipated December 2012
  - New ETO Market Making scheme increase obligations – Anticipated December 2012
  - Equity OTC Clearing (Phase 2)* – Anticipated Q1 2013

  * ASX is releasing a detailed Market Notice on Equity OTC Clearing in Jan/ Feb 2012.

- ASX is now commencing the consultation phase for the next set of reforms and developments beyond those noted above. This consultation paper seeks market views on aspects of the current ETO market structure, including:
    - ETO crossing rules and procedures
    - Display of Participant Codes
    - Exercise and assignment allocation process
    - Corporate actions creating basket options
    - Differentiated ETO registration fees
- ASX welcomes comments in response to this Consultation Paper. ASX would expect Market Makers, brokers, institutional users, retail users and clearers to suggest, in detail, reasoned arguments supporting their views on the above topics and any other reform or development policy topics.
- If ASX decides to pursue any initiatives in respect of the above market structure matters, the market will be given suitable formal notice in line with ASX's current market notification policy.

1.1 How to Respond to this Consultation Paper

- Written responses should be addressed to ASX no later than Wednesday 28 March, 2012.
- The identity of written responses will be kept confidential by ASX.
- Written comments may be sent to:
    - By Mail:

      Gregory Pill
      Manager, Equities and Equity Derivatives
      Australian Securities Exchange
      20 Bridge St
      Sydney, NSW 2000

    - By Email: greg.pill@asx.com.au

- Gregory Pill is also available for face to face discussions with ETO Stakeholders. Please call Greg on (02) 9227 0696 to arrange an appropriate time.

1.1.2 The Approach of this Paper

- The second section of this paper individually details the areas of market structure being consulted on by ASX.
- The third section details the specific questions set out by ASX for response by market users.
- The fourth section outlines the review process and implementation plan if ASX decides to change any part of the ETO product or market structure.

2.0 The Focus Areas being Considered by ASX

2.1 ETO Crossing Rules and Procedures

- There is ongoing difference of views between ETO Market Makers and other participants around crossings.
- Most Market Makers suggest crossing functionality should be removed while other participants suggest that crossings are an integral part of the ETO market.
- Market Makers suggest that best execution and fairness is not being achieved for crossings because not everyone can participate.
- Other participants have suggested that placing the order (especially if large) into the screen ultimately results in a worse fill for the client due to information leakage.
- Other participants have also suggested tha they have spent considerable time educating and structuring deals for clients, which should be compensated by earning commission on both sides of the trade.
- In terms of the two main ETO markets in the world:
    - The US does not allow crossings; while
    - Europe does
- The paper asks for comments on these matters and suggested approaches.

2.1.1 Cross Single Series Function - Percentage and time an order is required to be shown in TradeMatch before being crossed.

- Currently ASX Operating Rules Procedure 4060 Part B paragraph 2(b), stipulates that trading participants are required to show 50% of an ETO buy and sell order for 30 seconds (15 seconds each side) to the market before executing a crossing. ASX is seeking comment on whether the 50% level should be decreased, increased or remain the same. ASX would like comments on the overall appropriateness of this measure and whether the 30 second timing should be reduced in light of technological enhancements that have occurred since this procedure was set.

2.1.2 Cross with TradeMatch (Cross with Book) functionality

- ASX Operating Rules Procedure 4060 Part B paragraph 3, stipulates that trading participants may only effect a Crossing of Orders in a single Contract Series using the "Cross- with- TradeMatch- Function" in TradeMatch if:
    - one of the Orders sought to be crossed has been in TradeMatch for at least 60 seconds; and
    - the crossing is transacted in accordance with the applicable procedures.
- ASX has received feedback from market participants suggesting that ASX Operating Rule Procedure 4060 Part B paragraph 3 should be removed or at least amended. This is based on a perception that some market users are using this function rather than the "Cross Single Series Function" in order to only show one side of a potential crossing and in effect increasing the likelihood of executing the crossing without needing to share it. ASX seeks comment on whether the Cross with TradeMatch rule procedure should be deleted, amended or left unchanged.
- Please note that any change to the crossing rules for a single series ETOs will be mirrored in the crossing rules for Standard Combinations and Tailor Made Combinations.

2.1.3 Special Size levels for Crossing ETOs

- ASX Operating Rule Procedure 4810 Part B says that for a participant to facilitate a direct trade report (without going to market) of an ETO contract it must be "Special Size". Special Size is currently set at $500,000 of premium for Category 1 and Index ETOs, $250,000 of premium for Category 2 and Category 3 ETOs and $1 million for all LEPOs.
- In light of ASICs market consultation paper CP 168[1] and specifically the reference to reducing and tiering Special Size levels for equities, ASX would like feedback on whether Special Size for Equity and Index ETOs should decrease, increase, be automatically aligned with ASIC tiering, or for new methods to be considered.
- If the level is left unchanged ASX would like to propose changing the current premium only methodology for determining Special Size to a new methodology that considers either the option premium or notional value, excluding LEPOs. Notional value is determined by multiplying the Strike price by the number of contracts by the ETO underlying contract size.
- As an example please consider the below table:

	Notional Value of ETO Trade	**Premium value of ETO trade**
ETO Schedule	**(Strike x U/ C x # contracts)**	**(Opt $ x U/ C x # contracts)**
Category 1	$5,000,000	$500,000
Category 2	$2,500,000	$250,000
Category 3	$2,500,000	$250,000
LEPO	N/ A	$ 1 million

- Applying the above ETO Special Size table to a TLS ETO trade (Category 1 ETO security) a broker would need to have at least $5,000,000 of notional value or $500,000 in premium ($1 million for LEPOs) before they could execute an ETO Special Size crossing in TLS.

[1] http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/cp168-published-20-October-2011-2.pdf/$file/cp168-published-20-October-2011-2.pdf

2.2 Display of Participant codes

- In 2005 ASX conducted a market consultation with respect to the removal of participant codes for the ETO market. The majority of market feedback obtained at that time was to leave broker codes turned on to help facilitate trading.
- With the emergence of High Frequency Trading (HFT) over the years and the natural progression of European and US Markets to turn off broker codes, ASX is keen to hear stakeholder feedback on whether ASX should follow the offshore trend and turn off broker codes for the ETO market.
- Please note that turning off participant codes for the ETO market will have consequences on the trade cancellation policy for ETOs as it currently stands to bring the policy in line with other ASX and ASX 24 anonymous markets.
- If it is decided that participant codes for the ETO market are to be turned off, a no cancellation range (NCR) would be created. As a result ASX ETO cancellation fees will need to be adjusted (in line with Equities) to cover the increase in ASX operational time required to facilitate such cancellations.

2.3 Exercise and assignment allocation process

- ASX systems currently use a randomiser (algorithm) for allocating ETO assignments against accounts following ETO exercises.
- ASX has received feedback from the market that this methodology should change following ASX changing the standard contract size of ETOs from 1000 shares to 100 shares per contract.
- Some end investors have found that assignment on less than 10 ETO contracts, equating to 100 - 900 shares, generates excessive brokerage fees.
- ASX charges third party clearers a 5c fee per contract for exercise and assignments, with no minimum amount.
- ASX seeks stakeholder feedback on changing the current methodology from full randomisation to a methodology that has a randomiser with minimum assignment amount.
- ASX could set a minimum number of assigned contracts to 10 with a randomiser allocating to holders above this amount if the algorithm conditions are met.
- To illustrate, consider a situation whereby Investor A is long 100 contracts of XYZ options and decides to exercise these.

- Under the current methodology the assignments could occur as follows:
  - Investor D is assigned 92 contracts
  - Investor E is assigned 5 contracts
  - Investor F is assigned 3 contracts
- Under the proposed methodology the assignments could occur as follows:
  - Investor D is assigned 70 contracts
  - Investor E is assigned 18 contracts
  - Investor F is assigned 12 contracts
- Under certain circumstances investors can still be assigned on less than 10 contracts using the proposed methodology. This can come about by an investor holding less than 10 contracts to begin with or if the algorithm conditions cannot be met.
  - To illustrate a situation whereby the algorithm conditions cannot be met in full consider Investor A who is long 20 contracts, Investor D who is short 10 contracts and investor E who is also short 10 contracts. This is the only Open Interest in the ETO series. If investor A decides to exercise 17 contracts then investor D will be assigned 10 contracts and Investor E will be assigned 7.
- As illustrated above, the proposed methodology will not fix the assignment issue completely for end investors, however it will reduce the number of instances where an end investor is assigned a small amount of contracts compared to current practise.
- ASX would like stakeholders to comment on whether ASX should change to the proposed methodology, leave the current methodology in place or recommend another suitable methodology.

2.4 Corporate Actions resulting in basket options

- Certain corporate actions can cause the creation of so called 'basket options', the most common demergers, where an existing ETO stock is spun off creating at least two entities.
- Some participants have called for the removal of all basket options going forward.
- This follows low Market Maker support for such contracts, with no new series in basket options being listed after the initial series, and also the reduction in trading volumes following the corporate action.

- The low Market Maker support for basket ETOs will be a problem when ASX implements Fair Value Settlement in 2012.

Alternative Adjustment Method

- ASX is seeking views on moving to a new reinvestment method based on selling the expected smaller (child) entity.
- The reinvestment method is similar to a “rights-style” adjustment, whereby the market value of the ‘child’ entity is used to adjust the ‘parent’ ETO series.
- Some pros of the reinvestment method are:
    - This has the advantage of keeping it as a single stock option after the adjustment at all times, removing the use of the basket option result.
    - Compared to the current policy there will be no cases where basket options are used, as effectively there is no threshold limiting the use of the reinvestment method for demergers. It could be thought of as having a threshold effectively set at 50%, so that for any case, there is always a smaller entity that can be reinvested into the larger entity.
    - It removes any of the tradability issues related from basket options.
    - It is clear cut, with only one form of outcome, a single stock option.
- Some cons of reinvestment method are:
    - The equity holder has exposure to both Parent-ex-child and Child securities after the demerger, but the option holder only has exposure to the larger of the two entities. To hedge, the option holder has to divest out of the smaller security.
    - Under the rights-style adjustment using market valuation, based on VWAP, the options will be trading on an under adjustment basis on the ex-demerger date. The extent of the contract size change (increase) and strikes changes (decrease) are only published after the close of trading.
    - The Child could be bigger in value than the Parent. It is not possible to wait until both securities trade to decide which component to be reinvested. In such situations, this type of adjustment could inadvertently reinvest 60% child into a 40% parent-ex-child security, when the intention was to reinvest the smaller entity.

- ASX has considered the following alternatives which it considers flawed:
    - Adjust into two or more single stock ETOs
    - Partially cash out the proportion of the child value
    - Terminate options on the last trading day before demerger

Adjust into two or more single stock ETOs

- If the Parent was demerged into Parent-ex-child and the Child, the options over the Parent would be adjusted into separate ETOs over each of the Parent-ex-child and Child. This requires each separate option to have strikes reflecting the moneyness of the original option pre-demerger. This could be calculated using the strike/ share ratio of the original option pre-merger applied to the separate options, using the closing prices (or VWAP on the first ex-demerger date) as the at-the-money strike for the separate options respectively.
- This approach can be reached with the following logic: Given that the equity holder enjoys the benefit of holding two (or more) separate entities after the demerger, the option holder should likewise enjoy the benefit of holding two (or more) separate individual stock options over each entity after the demerger.
- The answer to why this approach is fundamentally flawed is: It provides a windfall gain to the option holder and a corresponding windfall loss to the option writer. The sum of value of two separate options over each resulting entity is greater than the value of the option before the demerger event. This is because of the correlation (portfolio diversification in reverse) effect. This may be seen by reversing the sequence. If you start with two separate shares and put it into a basket of two shares portfolio, the risk decreases once it becomes a basket. Conversely, if you start with a company and split it into two separate companies, you increase the overall risk. Therefore with an option over a company, in creating two separate options after the demerger, option value is not maintained but unwittingly increased. As a negative consequence, the outcome is a windfall gain to the holder, and windfall loss to the writer. The greater the difference in volatility of the two resulting entities, the greater is the magnitude of the volatility-based windfall transfer of option value from the writer to the taker.

Partially cash out the proportion of the child value

- If the Child was 50% in size by value and the Parent-ex-child 50%, then half of the option value would be settled out on the effective date, calculated from the Daily Settlement Price on the last day of trading of the stock cum-demerger. It requires the remaining option over the Parent-ex-child to have strikes reflecting the moneyness of the original option pre-demerger. This may be calculated using the strike/ share ratio of the original option applied to the remaining option, using the closing price (or VWAP on the first ex-demerger date) as the at-the-money for the separate option.
- A reasonable question supporting this approach would be: ASX provided a cash compensation adjustment for downsizing the ETO contract size from 1000 to 100, why can't ASX similarly cash settle out that component of the option representing the part to be spun-off?
- The cash adjustment in the ETO contract downsizing was to compensate for the rounding element – by its nature a much smaller proportion of the total than in a demerger where it can be substantial. Paying out cash in this method is essentially putting volatility to zero. Hence, if the Child represents a large proportion of the original parent entity it has a big impact on value, to the disadvantage of long holders and the advantage of short holders.

Terminate options on the last trading day before demerger

- This could be implemented with some modification to the Fair Value Settlement termination method, but unlike a takeover that kills off the underlying, a demerger actually creates further ongoing exposure opportunity in the demerged entities.
- The question behind this approach is: If termination can be done at fair value, (with the FVS regime coming in) why not terminate the options positions?
- Termination is the forced cessation of an option contract. It is a measure of last resort if an alternative adjustment is not available. Terminating the option position forces the equity position hedge to be liquidated. A demerger should not force an equity holder to remove exposure to the security.
- ASX seeks comments from ETO stakeholders about changing the current practise to the suggested methodology and whether there are other alternatives that should be considered.

2.5 Differentiated ETO registration fees

- ASX seeks comments from ETO stakeholders about the "one-size" fits all ASX pricing for single stock ETO registration fees of $0.13 per contract to a differentiated ETO registration fee based on the underlying security.
- ASX's proposal involves categorising ETO Classes into 5 groups/ schedules based on the value of the underlying stock.
- Stocks would remain in their categories for set terms that ASX would re-set on a 3 monthly basis.
- The groups proposed by ASX are:

Group / Schedule	Underlying Value	Proposed ETO Registration fee	Example of ETO Classes in Group / Schedule
1	$0.00 to $4.99	$0.08	TLS, FMG, MYR
2	$5.00 to $19.99	$0.12	AGK, OZL, QBE
3	$20.00 to $39.99	$0.15	NAB, NCM, WOW
4	$40.00 to $79.99	$0.18	RIO, CBA,
5	$80.00 +	$0.21	N/ A

- The purpose of this exercise is to remove impediments to trading for ETOs with lower priced underlying securities.
- The five groups have been set such that the exercise is revenue neutral by ASX based on the Y/ E 2011.
- ETO Classes will be moved between groups according to where the underlying is trading on the last 5 days of the 3 month period using the 5 day VWAP price.
- Participants will be notified of any changes to the ETO Class groupings via an ASX notice.
- ASX seeks comment on the above approach.

3.0 Questions for Market Users

1. ETO Crossing Rules and Procedures

a. Do you think ASX should change the order percentage shown requirement from the current 50% level for ETO crossings?
   i. Yes
   ii. No
   iii. Why?

b. If "Yes" at what level should ASX set the percentage shown requirement?
   i. 20%
   ii. 40%
   iii. 60%
   iv. 80%
   v. Other. Please explain.

c. Do you think ASX should decrease the amount of time (currently 30 seconds – 15 seconds each side) a crossing order needs to be shown to the market before execution?
   i. Yes
   ii. No
   iii. Why?

d. If "Yes" what amount of time do you think is appropriate?
   i. 10 seconds (5 seconds each side)
   ii. 15 seconds (7.5 seconds each side)
   iii. 20 seconds (10 seconds each side)
   iv. Other. Please explain.

e. Should ASX remove the Cross with TradeMatch rule procedure?
   i. Yes
   ii. No
   iii. Why?

f. If “No” should ASX adjust the current procedure in any way?
   i. Yes - please advise ASX on the changes you are suggesting
   ii. No

g. Should ASX move to a new model for setting the size levels for ETO Special crossings based on premium value and/ or notional value?
   i. Yes – why?
   ii. No – please specify alternative

h. If “Yes” where would you set the number of contract for each group?
   i. As set by ASX in this document
   ii. Other – please specify

i. Should ASX change the current special size crossings limits?
   i. Yes
   ii. No
   iii. Why?

j. If “Yes” what premium levels would you set for ETOs?
   i. Category 1:
      1. $1 million
      2. $750k
      3. $250k
      4. $150k
      5. Other – please specify
   ii. Category 2 & 3:
      1. $750k
      2. $500k
      3. $150k
      4. $75k
      5. Other – please specify
   iii. Index:
      1. $1 million
      2. $750k
      3. $250k
      4. $150k

5. Other – please specify

iv. LEPOs:

1. Adjust to underlying Equity special size limits
2. $2 million
3. $500k
4. $250k
5. Other – please specify

2. Display of Participant codes

a. Should ASX turn off displayed participant codes in ASX Trade for ETOs?

i. Yes

ii. No

iii. Why?

b. Does the fact that turning off broker codes results in the ASX Trade Cancellation policy for ETOs requiring the change described in this document have any impact to your answer above?

i. Yes

ii. No

iii. Why?

3. Exercise and assignment allocation process

a. Should ASX change the assignment algorithm for ETO exercises as described in this document to minimise allocation of sub contract size amounts?

i. Yes

ii. No

iii. Why?

b. If “Yes” do you agree with the suggested method outlined in this document?

i. Yes

ii. No – please specify preferred alternative

4. Corporate Actions resulting in basket options

a. Should ASX change the current adjustment policy to remove the possibility of the creation of basket options?
   i. Yes
   ii. No
   iii. Why?

b. If “Yes” should ASX adopt via the “reinvestment method” described in this document?
   i. Yes
   ii. No – please specify preferred alternative

5. Differentiated ETO registration fees

a. Should ASX change the current ETO registration fee model to the differentiated ETO registration fee model as outlined in this document?
   i. Yes
   ii. No
   iii. Why?

b. If “Yes” do you agree with ASX’s approach of introducing 5 groups linked to the underlying security’s value?
   i. Yes
   ii. No – please specify preferred alternative

6. Other

a. As an ETO stakeholder do you have any other suggestions as to changes ASX can make in order to facilitate growth in the ETO market?

4.0 Part Four: Review and Implementation

- All submissions need to be received by the end of March 2012.
- ASX will advise the market of its proposed schedule of reforms from this package in April 2012.
- Stakeholders will be given suitable notice of any changes.