



Department of
Primary Industries

NSW Commercial Fisheries - Adjustment Subsidy Program

The subsidised share trading market

Market language

- **Buyer's bid** – a bid to buy shares placed by a participant
- **Seller's offer** – an offer to sell shares made by a participant
- **Participant** – someone who is placing bids to buy and offers to sell shares in the market
- **Package offer** - an offer to sell all the shares in a fishing business (FB) and cancel the FB. Successful package offers receive the \$20,000 fishing business buyout, in addition to market share price for all shares
- **Matched bids and offers** - when a bid to buy shares is matched with an offer to sell shares. (Note: Matched shares are not traded until the market closes).
- **Active** – a FB that has provided catch reports to DPI in the last 5 years
- **Deficit** - an estimate of how many additional shares an FB needs to meet new minimum shareholding requirements or work at the highest level reported in the last five years

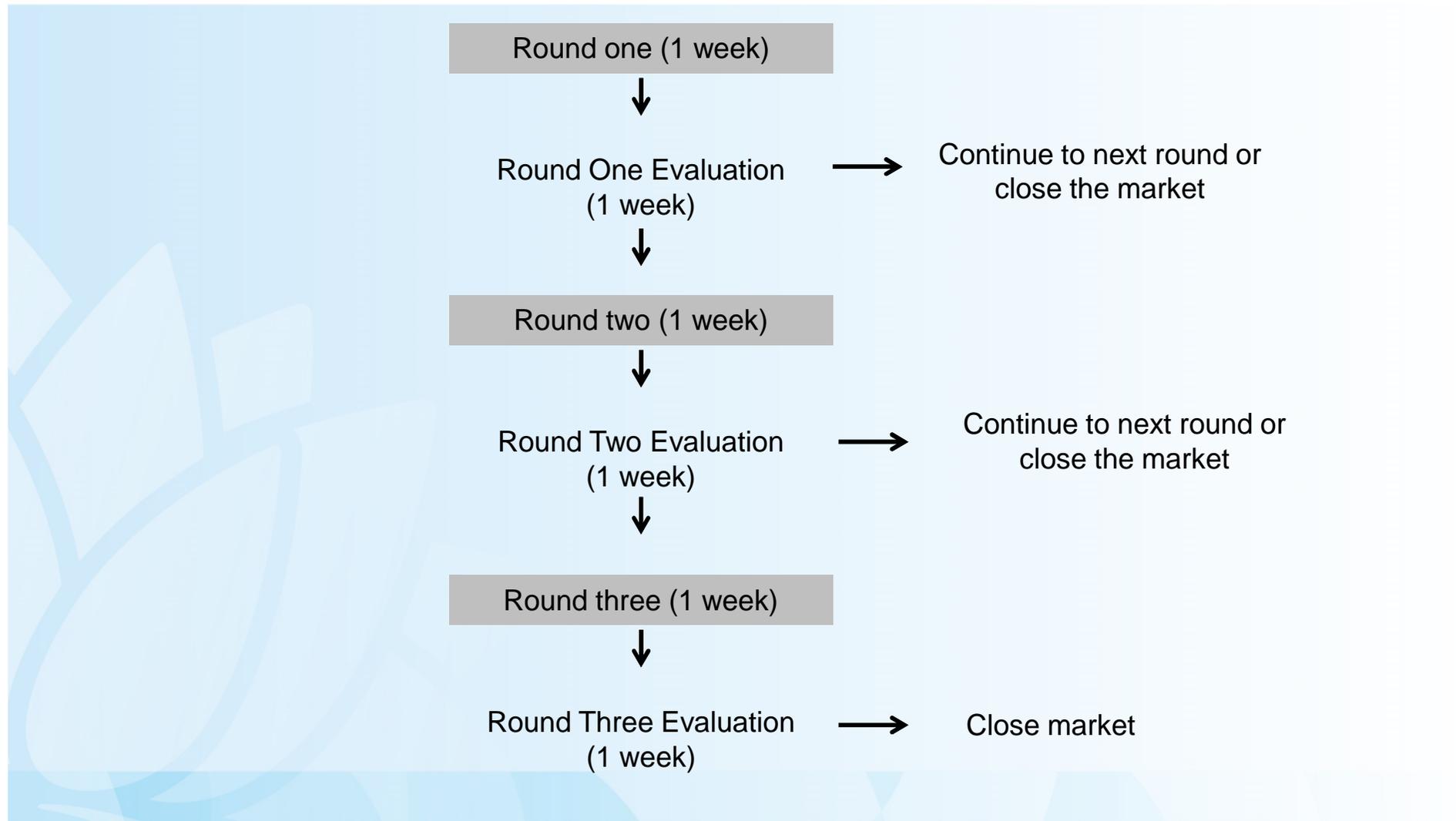
Why use an online market program?

- Previous buyouts have involved government decisions about price and viability that should be left to the market.
- We want to avoid subjective decisions about allocating the subsidy. With the market program, participants who place bids and offers determine the price of shares, and the software works out the most effective way to use the subsidy.
- The market program also matches buyers and sellers anonymously.

How do we know this will work?

- The market program has been thoroughly tested to ensure it works properly and meets its objectives
- Early testing showed that some preferred options (such as contingent bids) could not be implemented
- We conducted extensive computer-simulated bidding as well as testing using staff for additional realistic tests
- We have conducted tests using collusive bidding behavior, malicious bidding and have also commissioned system penetration tests

Market Process - Overview



Evaluation - Value for money

Approximate point where no significant further benefits occur



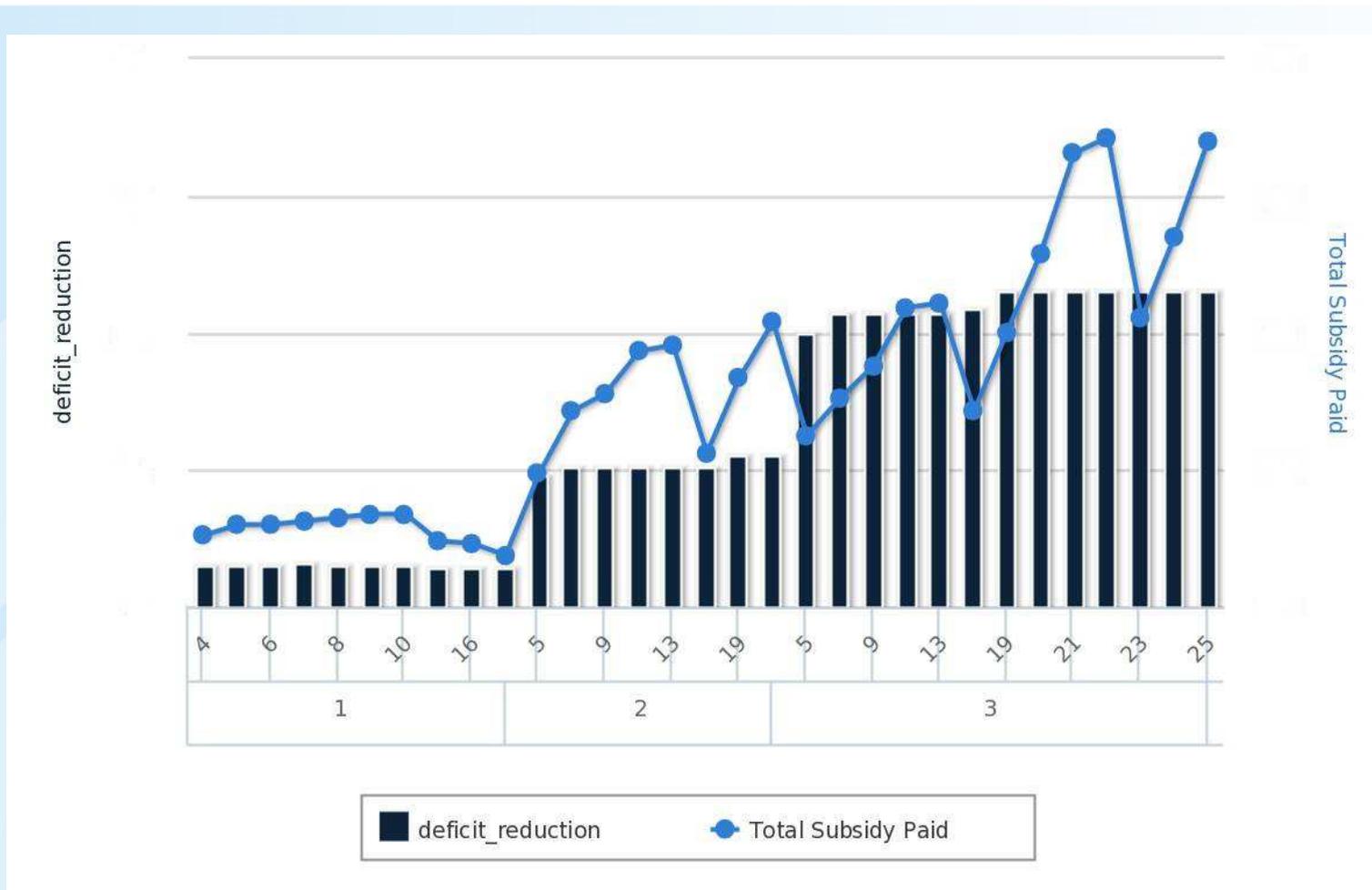
Highest rate of benefit per rate of expenditure

- Spending more subsidy generally produces better outcomes (eg. how many bids/offers are matched & share deficits reduced).
- However, beyond a certain point the rate of improvement slows then levels off.

Evaluation - Value for money (cont'd)

- Because the Government subsidy helps the market be more successful (eg. by bridging the gaps between the prices sellers ask for and the prices buyers are prepared to pay), spending more subsidy *generally* leads to better market outcomes.
- However, this is not a simple relationship.
- When the total subsidy expenditure is low, a small increase in expenditure can have a dramatic effect on the results.
- However, as total expenditure increases, the rate of improvement slows before eventually plateauing. This is because there is a limit to how much the subsidy can help. For instance, if a seller offers 50 shares but a buyer only wants 10, they cannot be matched no matter how much subsidy is available.
- The evaluation panel must make a recommendation to the Director-General DPI about what level of total subsidy expenditure gives the best result and value for money.

Evaluation – measures of success



Additional rounds can bring buyers and sellers closer and increase the number of matches

Evaluation – measures of success (cont'd)

The graph on the previous slide shows how dramatically outcomes can improve from one round to the next as a consequence of buyers and sellers adjusting their bids and offers in response to preliminary outcomes from the previous round.

The dark blue bars show one outcome - the number of shares matched to active fishers with deficits. In this example, there is a great deal of improvement from round to round. By contrast, the amount of subsidy spent (shown by the light blue line) has relatively little impact within each round. The adjusted bids allow the market to make more matches and spend more subsidy.

Evaluation – measures of success (cont'd)

- The evaluation panel uses a variety of tools to measure the effect of different amounts of subsidy on the success of each round of the market
- This includes the rate of success for different types of bidders, particularly high priority groups such as active fishers and those with package sell offers

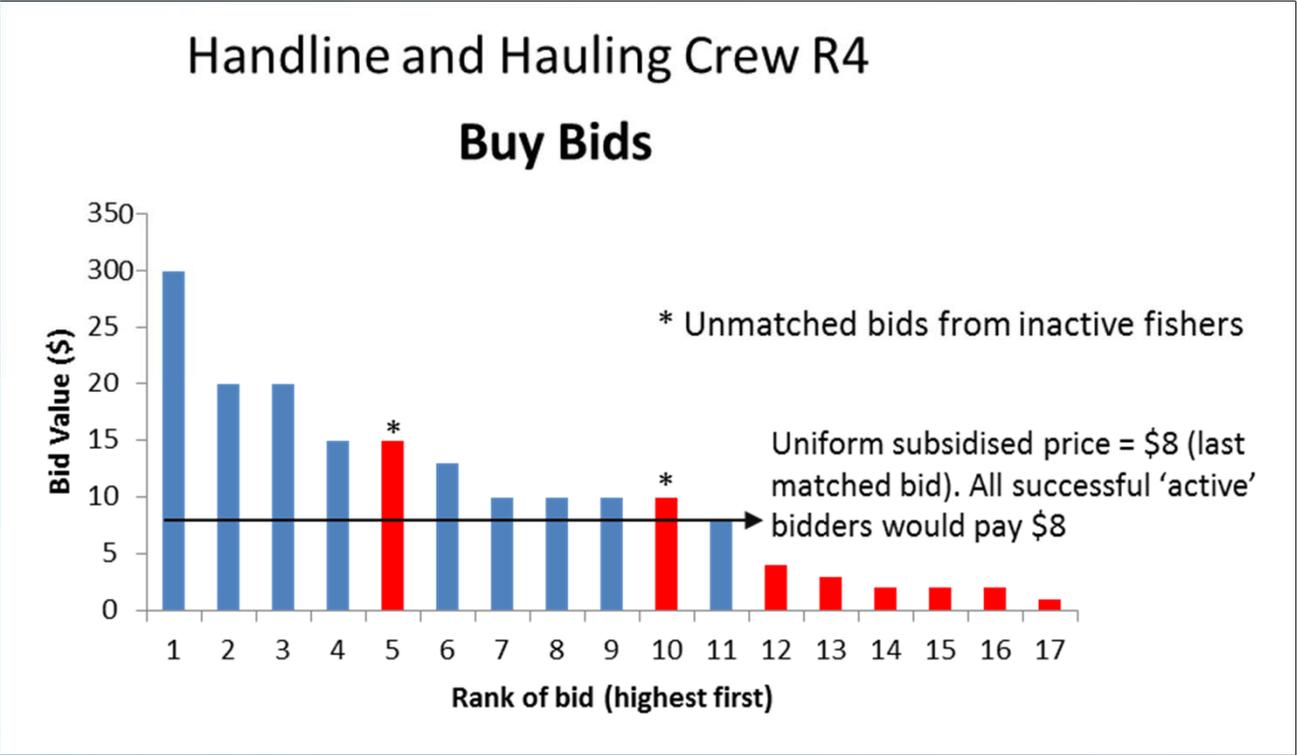
Features of the market – uniform price



Features of the market – uniform price (cont'd)

- For sellers, the lowest priced offer will generally be matched first (providing the quantity of shares offered can be matched to a buyer). The last (highest) matched sell offer sets the uniform price (shown by the red line) that is received by all successful sellers in the share class.
- For buyers, it is more complex with a number of additional factors including the activity status and deficit influencing whether a bid is matched. However, all else being equal, buy bids will generally be matched from highest price to lowest, with the last (lowest) matched bid setting the uniform buy price (shown by the red line) for all active buyers in the share class.
- For all active buyers, the difference between the sell price and the buy price will be subsidised by Government.
- However inactive fishers are not eligible for subsidy, so must bid above the sell price to have a chance of being matched.

Uniform Price Case Study – Buy Bids



Uniform Price Case Study – Buy Bids (cont'd)

- The example on the previous slide illustrates how the uniform price works in practice.
- Blue bids have been matched, red bids unmatched.
- The highest buy bids are selected first until bids and offers can no longer be matched. The last buy bid matched, in this case bid 11, sets the uniform price (\$8) for all active buyers in the share class.
- Although bidder 1 was prepared to pay \$300 a share, thanks to the uniform price they only had to pay \$8 a share.
- Bids 5 and 10 were unmatched. As inactive fishers, they were not eligible for subsidy and were a lower priority than the active fishers in this share class. They would have had to bid above the uniform sell price (see next slide) to have had any opportunity to be matched – subject to share availability.
- This graph also shows the tendency of many bidders to round their bids to multiples of \$5 or \$10. For example, bidders 7 to 10 all bid \$10 per share, only just above the uniform buy price. If one of these bidders had bid \$11 they would have been matched ahead of those that bid \$10. In share classes where supply is limited, such small differences can be crucial.

Uniform Price Case Study – Sell Offers



- Uniform price protects buyers with high bids and sellers with low offers
- In this case study, the market provided a high rate of subsidy due to buyers having large share deficits.
- Note that as with bids, offers are often rounded to multiples of \$10

Uniform Price Case Study – Sell Offers (cont'd)

- As for the previous graph, the blue bars show offers that have been matched, and the red bars show offers that were unmatched.
- The activity status or deficit of a seller has no bearing on whether their offer is matched. As long as the quantity of shares can be matched with a buyer(s), the lowest priced offers are generally matched first (although shares from package offers get highest priority).
- The last offer matched (offer 8) sets the uniform price that all successful sellers receive.
- Seller 1 was prepared to accept \$20 a share but thanks to the uniform price they received \$40 a share. As the lowest offer, they were the first to be matched.
- Again, this graph shows the tendency of many sellers to round their offers to multiples of \$5 or \$10. For example, sellers 5 to 8 all offered to sell for \$40. If one of these sellers had offered to sell for \$39 they would have been matched ahead of those that offered to sell for \$40. In share classes where demand for shares is limited, such small differences can be crucial.

Features of the market – caps on buyers in some classes

- The most common concern has been about share availability
- Caps limit large share aggregations
 - In minimum shareholding fisheries, caps have been set equal to the increase in the minimum shareholding
 - In ITCAL (catch or effort quota) fisheries:
 - For share classes with endorsement codes EGC1H1, EGC1H2, EGC1H3, EGC1H5, EGC1H7, EGC2H1, EGC2H2, EGC2H5, EGC2H7, EGET1, EGET7, EGMC7 and EGT2, caps have been set at 125 shares.
 - For all other ITCAL share classes, caps have been set equal to the largest deficit of any participating fishing business in that share class
- There are no caps in classes going to the Independent Allocation Panel or where there is no change to the share linkage arrangement.

Features of the market – deficit and activity case study on bids

Deficit	Is Active	Bid Type	Buy Bid No. (Min)	Buy Bid No. (Max)	Buy Bid Price (per share)	Units Bought
0	FALSE	BUY	125	125	300	0
0	TRUE	BUY	125	250	256	0
-594	TRUE	BUY	125	375	255	375
-285	TRUE	BUY	125	375	250	275
0	FALSE	BUY	25	25	250	0
-177	TRUE	BUY	250	300	175	0
-396	TRUE	BUY	150	250	160	150
0	TRUE	BUY	100	125	160	0
-153	TRUE	BUY	125	125	150	0

Note:

- High bidders without activity or deficit were unmatched
- One bidder with deficit (row 6) was unmatched as there were not enough shares left to satisfy their bid
- All shares offered for sale were matched and helped to reduce buyers' deficits

Features of the market – deficit and activity case study on bids (cont'd)

- The table on the previous slide shows how the activity status and deficit of a fisher influences the likelihood of their bid being matched, in line with the priorities of the market.
- Bids highlighted orange were successfully matched.
- Three of the active fishers with deficits were matched first, ahead of the two fishers (one inactive and one active with no deficit) who put in the highest bids.
- The sixth bidder had a large deficit and bid higher than the seventh bidder. However, because they requested 250-300 shares and only 150 shares were available, their bid could not be matched. This highlights how the range (max/min number) of shares bid for can influence the success of a bid, particularly when supply is limited.

Features of the market – Package Offers

- The purpose of package offers is to prevent stranded assets – leaving sellers with hard-to-sell shares
- Because packages are all-or-nothing, they can be harder to match than individual bids
 - A package may not sell if there is no demand or prices for some share types
 - In some circumstances, low values can be assigned to shares in package offers
- However, shares from packages are prioritised ahead of individual sell offers wherever possible

Rejected bids above transfer price

- Sometimes bidders can be unsuccessful even though they bid above the transfer price, for one or more of the following reasons:
 - The quantity of shares could not be matched (see example below);
 - The market software prioritised other fishers, such as active fishers with deficits;
 - There were too many buyers with the same price, and not enough shares for all of them.
- Example of a quantity mis-match:
 - Fred offers 100 shares at \$100 each
 - Sam wants to buy exactly 20 shares and bids \$200 each; Claire wants to buy exactly 100 shares and bids \$100 each
 - Sam misses out even though he bid twice as much as Claire
- In this situation, using a range (min and max) in the number of shares bid for can help improve the chance of success

Rejected offers below transfer price

- Sometimes sellers can be unsuccessful even though they offered shares for less than the transfer price, for one or more of the following reasons:
 - The quantity of shares could not be matched;
 - The market software prioritised shares from package offers;
 - There were too many sellers with the same price, and not enough buyers to match all of them.

If you need help

- Professional advice grants up to \$2000
 - Up to \$1000 for independent financial advice
 - Up to \$1000 for assistance relating to share trading including legal and bidding services

Things to remember

- Market starts 1 May
- Get professional advice
- Know your maximum price if buying, minimum if selling
- Fishing businesses without at least one bid or offer at the end of a round will be locked out of any future rounds. You cannot enter the market later.
- If buying, think carefully about whether you must have an exact number of shares, or could accept any number within a range