ASX Grain Futures & Options

Innovation Generation Conference

Griffith NSW

18 July 2008

Disclaimer

This material contains information only. The information is for education purposes only and any advice should be sought from a professional adviser. If you are seeking advice (including a recommendation or opinion) about a financial product you should consult an Australian Financial Services Licensee.

To the extent permitted by law, no responsibility for any loss arising in any way (including by way of negligence) suffered by anyone acting or refraining from acting as a result of this material is accepted by ASX. This disclaimer extends to any private discussions or correspondence with the presenter of this information.

My brief

Item	Topic
1	Detailed exploration into the futures and options market.
2	Discuss the key factors when looking into these products.
3	2007 Hedging Review.
4	2008 Hedging Review.
5	Discuss the market in general.
6	Provide an overview of marketing alternatives.
7	I have 75 minutes.
8	Push conference delegates out of their comfort zone.

Deregulation

List five issues you are concerned about when it comes to marketing your grain.

What is the role of ASX in Australia's grain market?

Key concepts

Hedging
Forward Contract
Futures Contract
Swap
Novation
Basis
Convergence / Arbitrage
Put Option
Call Option

Transparent Pricing

The price traded on ASX is called a 'Track' price which is essentially a port price excluding S&H costs.

All deliveries occur up country from a prescribed port zone. If delivered, they need to be converted to an upcountry FIS price.

Settlement is calculated based on the prevailing NACMA Location Differential and the grower receival stack average.

The following flow chart shows where the ASX price fits in the value chain and how it relates back to a farm gate price.

Price Flow Chart

On Farm		Delivered Silo		ASX	
					
$280 approx.		$292.25 West Wyalong		$325 NSW Track	
Cart to Silo	- $12	NACMA Location Differential APW1 (10.5%)	- $35.75 + $3.00	Base Price (10% Protein)	

•NACMA Location Differential applied reviewed annually effective Oct 1 2008.

•Protein Premium based on stack average. Priced at 60 cents per point above 10%, capped at 11.4%.

•Pictures are not actual locations – Silo is actually Ouyen.

Country & Exchange	Est.	Contract	Contract Size (t)	2006			Multiple
				Contract Volume*	Tonnage Traded	Underlying Physical (t)**	
United States of America							
Chicago Board of Trade	1848	Soft Red Winter Wheat	136	18,822,846	2,559,907,056	10,618,555	241
		Corn	127	58,557,281	7,436,774,687	298,600,000	25
Kansas City Board of Trade	1856	Hard Red Winter Wheat	136	5,278,647	717,895,992	18,563,155	39
Minneapolis Grain Exchange	1881	Hard Red Spring Wheat	136	1,653,702	224,903,472	11,767,976	19
Canada							
Winnipeg Commodity Exchange	1887	Canola	20	2,619,530	52,390,600	9,105,000	6
		Western Barley	20	195,024	3,900,480	10,000,000	0.39
		Feed Wheat	20	66,555	1,331,100	3,000,000	0.44
China							
DaLion Commodity Exchange	1993	Corn	10	135,290,072	1,352,900,720	139,360,000	10
		Soybeans #1 (+#2)	10	21,644,574	216,445,740	16,350,000	13
Zhengzhou Commodity Exchange	1990	Combined Wheat Contracts	10	29,408,580	294,085,800	97,450,000	3
South Africa							
South African Futures Exchange	1996	White Maize	100	1,270,382	127,038,200	9,376,000	14
		Yellow Maize	100	186,385	18,638,500	2,344,000	8
		Wheat	50	334,584	16,729,200	2,000,000	8
		Sunflower	50	79,121	3,956,050	520,000	8
		Soybeans	25	42,928	1,073,200	424,000	3
Australia							
ASX Ltd	2003	Milling Wheat (Jan 07)	20	46,721	934,420	2,100,000	0.44
		Feed Barley (Jan 07)	20	27,254	545,080	1,060,000	0.51
		Sorghum (March & May 07)	20	17,834	356,680	996,000	0.36

What is a Futures Contract?

- An ASX Grain Futures contract is a formal, standardised, binding agreement made on the **Australian Stock Exchange**. A buyer and seller agree to trade a specific quantity and quality of a commodity for delivery at an established point in the future and at an agreed-upon price. The contract specifies size, price, possible delivery locations, and other terms and conditions.

Why use futures?

List four reasons why people may use futures?

How would you use futures?

Grain Futures Contracts

Contract	Physical Grade	Track Market
Australian Milling Wheat	APW2 (NACMA 10% protein)	Newcastle & Port Kembla (NSW)
Australian Feed Barley	F1	NSW, Geelong & Portland
Australian Sorghum	SOR	Brisbane / Newcastle
Australian Canola	CAN	NSW, Geelong, Portland & Port Adelaide
Australian Feed Wheat	FED1 (NACMA)	Newcastle & Port Kembla (NSW)

ASX Grain Futures are deliverable contracts.

Convergence

Futures contracts are financial instruments derived from a physical market.

Futures contracts aid industry through

- Transferring risk
- Price discovery

Both these roles are of little benefit if the futures market does not ultimately replicate the price behaviour of the physical market.

Deliverable contracts enable convergence achieved through arbitrage trading thereby protecting the market’s integrity and relevance.

The Clearing House

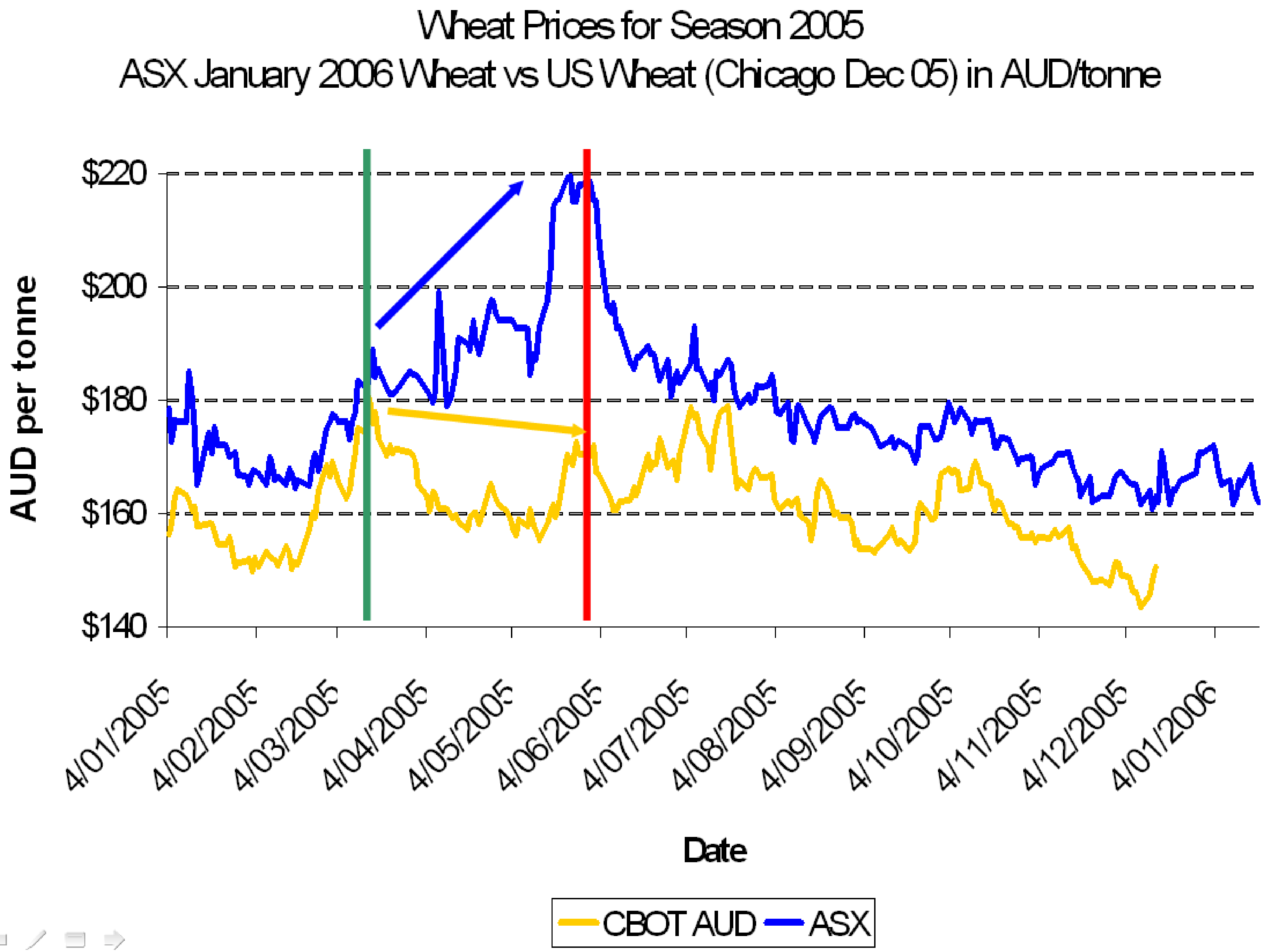
ASX
AUSTRALIAN SECURITIES EXCHANGE

- **Reduced Counterparty Credit Risk**
- Following the execution of the trade the contract is recorded and registered in the name of your Clearing Participant with the Australian Clearing House (ACH).
- ACH becomes the counterparty for every trade (novation).
- The financial integrity of the market is protected by the continuous mark to market function performed by the ACH.
- Positions that are out of the money are margined to ensure the risk of default is minimised.
- ACH assumes the responsibility for ensuring all Clearing Participants fulfil their obligations in relation to the contract.

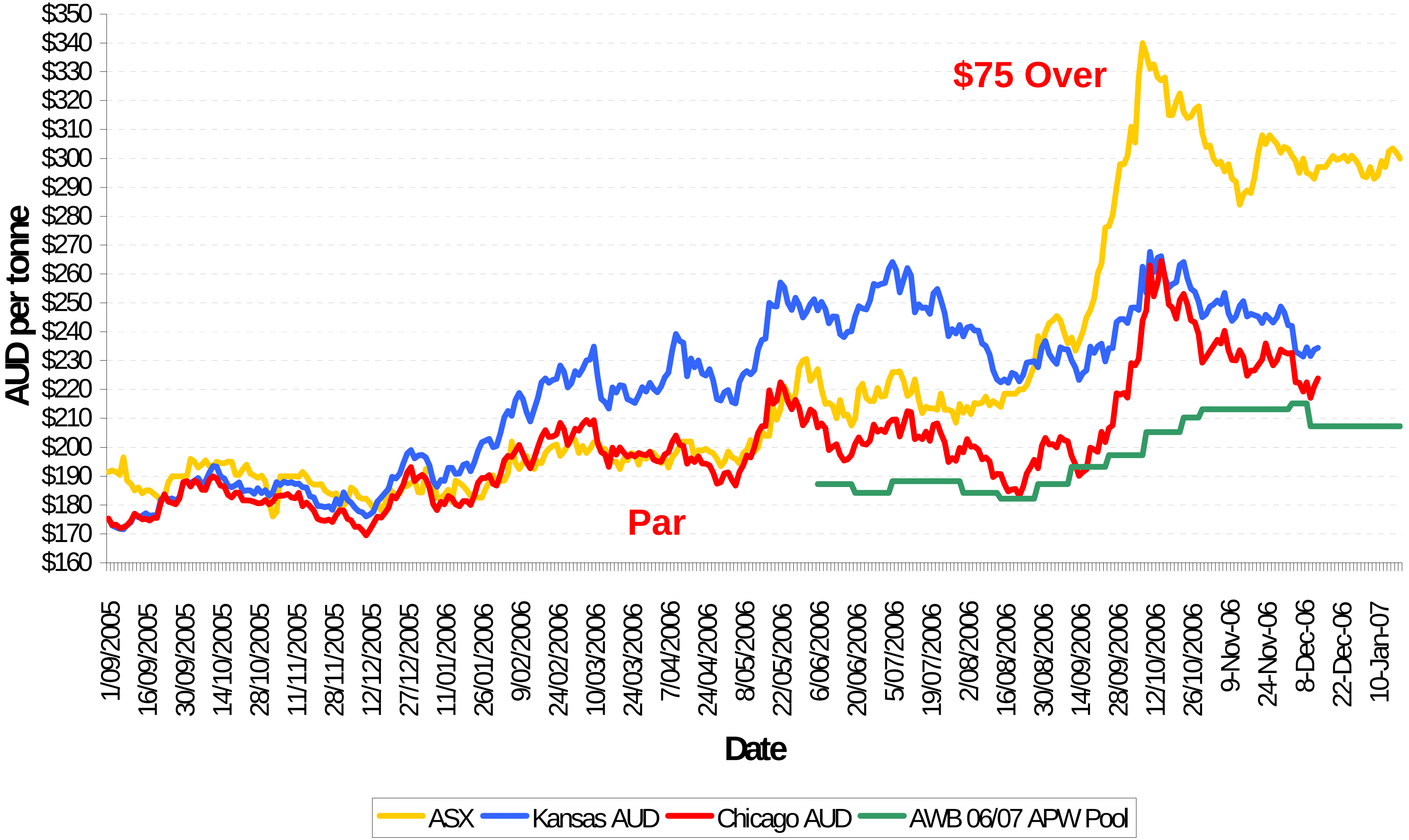
Basis = the difference

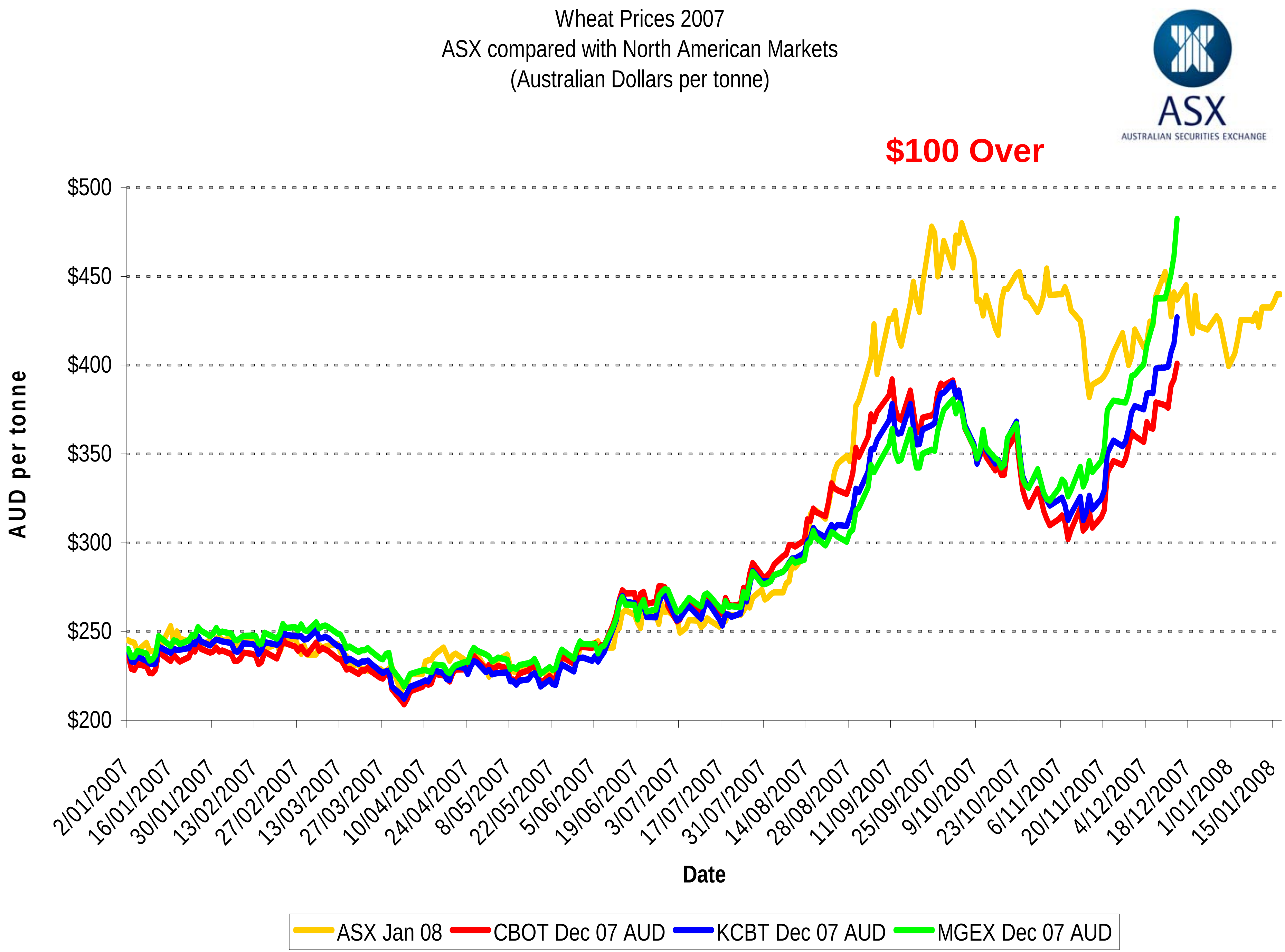
ASX
AUSTRALIAN SECURITIES EXCHANGE

- Futures contracts are standardised contracts.
- Cash markets differ from standardised specs
  - Time
  - Quality
  - Location – geographic
- Basis is the difference between the local cash price of a commodity and the price of the relevant futures contract.
- Basis risk, the risk that the futures market does not behave in a manner similar to the physical market, is reduced the closer the futures market can match the physical.


Wheat Prices for Season 2005
ASX January 2006 Wheat vs US Wheat (Chicago Dec 05) in AUD/tonne
AUD per tonne
$220
$200
$180
$160
$140
4/01/2005
4/02/2005
4/03/2005
4/04/2005
4/05/2005
4/06/2005
4/07/2005
4/08/2005
4/09/2005
4/10/2005
4/11/2005
4/12/2005
4/01/2006
Date
CBOT AUD
ASX

Market Signal for Eastern Australia Wheat Price
ASX January 2007 Wheat vs US Wheat (Chicago Dec 06) (Kansas Dec 06)
AWB 2006/2007 APW National Pool




Wheat Prices 2007
ASX compared with North American Markets
(Australian Dollars per tonne)
ASX
AUSTRALIAN SECURITIES EXCHANGE
$100 Over
$500
$450
$400
$350
$300
$250
$200
AUD per tonne
2/01/2007
16/01/2007
30/01/2007
13/02/2007
27/02/2007
13/03/2007
27/03/2007
10/04/2007
24/04/2007
8/05/2007
22/05/2007
5/06/2007
19/06/2007
3/07/2007
17/07/2007
31/07/2007
14/08/2007
28/08/2007
11/09/2007
25/09/2007
9/10/2007
23/10/2007
6/11/2007
20/11/2007
4/12/2007
18/12/2007
1/01/2008
15/01/2008
Date
ASX Jan 08
CBOT Dec 07 AUD
KCBT Dec 07 AUD
MGEX Dec 07 AUD

2007

ASX
AUSTRALIAN SECURITIES EXCHANGE

2007	27th April	29th June	31st Aug	31st Oct	31st Dec
	Sold Futures	**Bought Futures**			
ASX AWM8F	$237	$261.50	$380	$440	$399.50
Hedge Cost		-$24.50	-$143	-$203	-$162.50

What is a Put Option?

A Put Option refers to the right to sell a futures contract at a certain price on or before a certain time in the future.

When you *put* your ute on the market – you are trying to *sell* it.

When you *buy a Put* option you are *buying the right to sell* the futures contract at a certain price on or before a certain time in the future.

Buying Put Options essentially insures the price of the commodity against a market downturn.

ASX Grain Options

- An Option is a contract between two parties giving the Buyer the right, *but not the obligation*, either to buy or to sell the underlying ASX Grain Future at a set price, on or before a predetermined date.

- Two types of option
  - Put – the right to sell the future
  - Call – the right to buy the future

- Like futures, options can be bought and sold. However, unlike futures, they have very different risk profiles.

Why use Put Options?

ASX
AUSTRALIAN SECURITIES EXCHANGE

- Key Benefits for growers;
  - Protection from lower prices.
  - Ability to enjoy upside in price should it occur.
  - Gives you time to decide on marketing alternatives.
  - **No production obligation.** There is no obligation for the buyer of the option to actually sell the commodity hedged when using a Put Option.
  - It may be delivered against.

No production risk

Put Options protect growers from falling commodity prices with no production obligation.

When you insure your car, you reserve the right but not the obligation to have an accident in the next twelve months.

Similar to insurance, when you buy a put option you reserve the right, not the obligation, to sell at a certain price. Importantly, because you are buying a right, and not an obligation you are protecting the value of your crop but;

- if the market trades higher you are free to take advantage of the better prices, and
- if you do suffer crop failure there is no obligation to deliver and there is no requirement to 'wash out' the contract.

Known risk investment

When you buy the put option, like insurance, you pay what is called a premium. The premium is what the strategy costs, so you know the money you are putting at risk.

The value of the premium varies with supply and demand. It is determined by a number of factors which include, the value of the underlying futures contract, the time to expiry for the option and the volatility of the market.

If you suffer crop failure, you have no obligation to the market.

You can either look to sell back the bought option in the market or let it lapse worthless or exercise if it is in the money and trade out of the futures market.

Put Option Explained

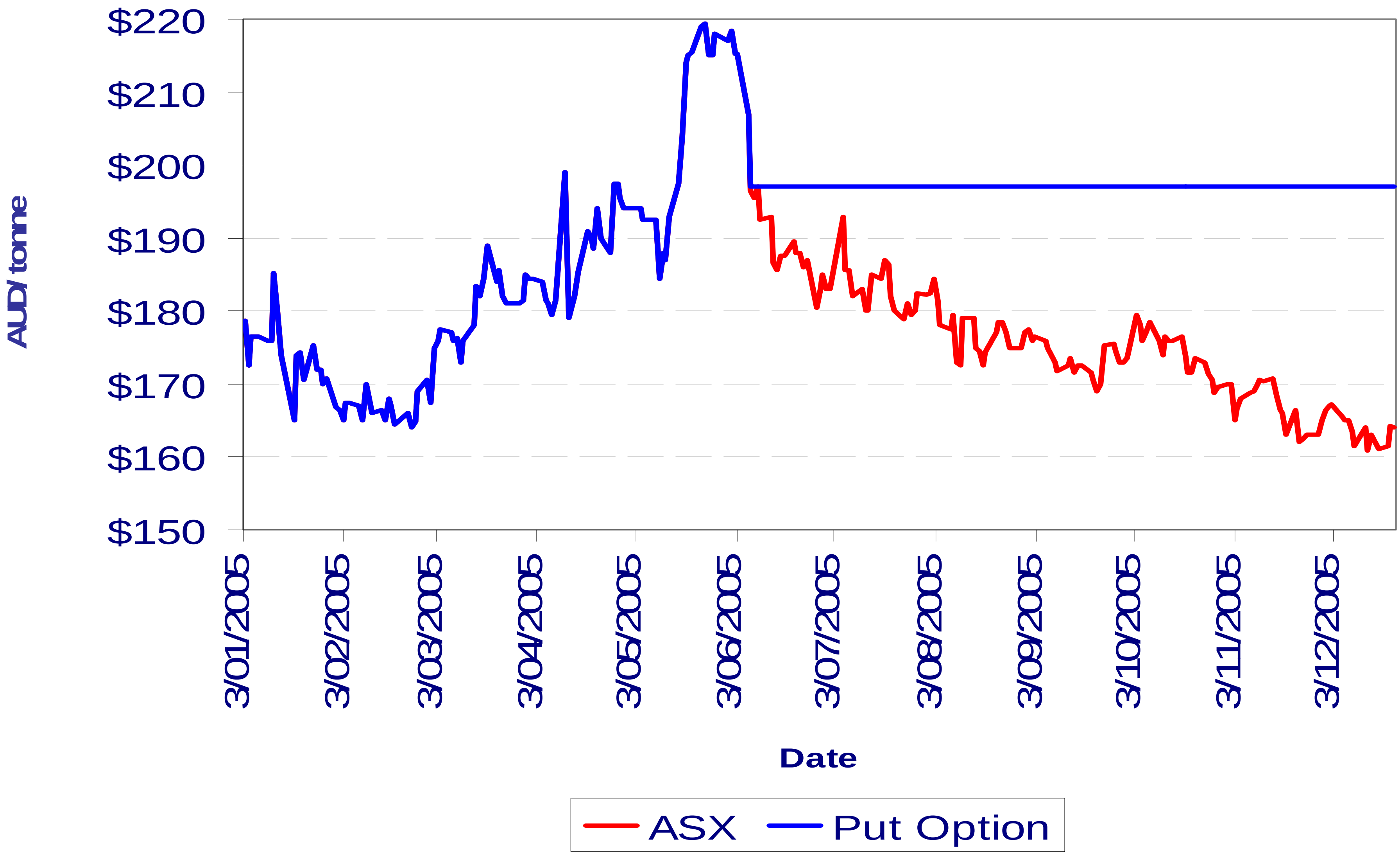
ASX
AUSTRALIAN SECURITIES EXCHANGE

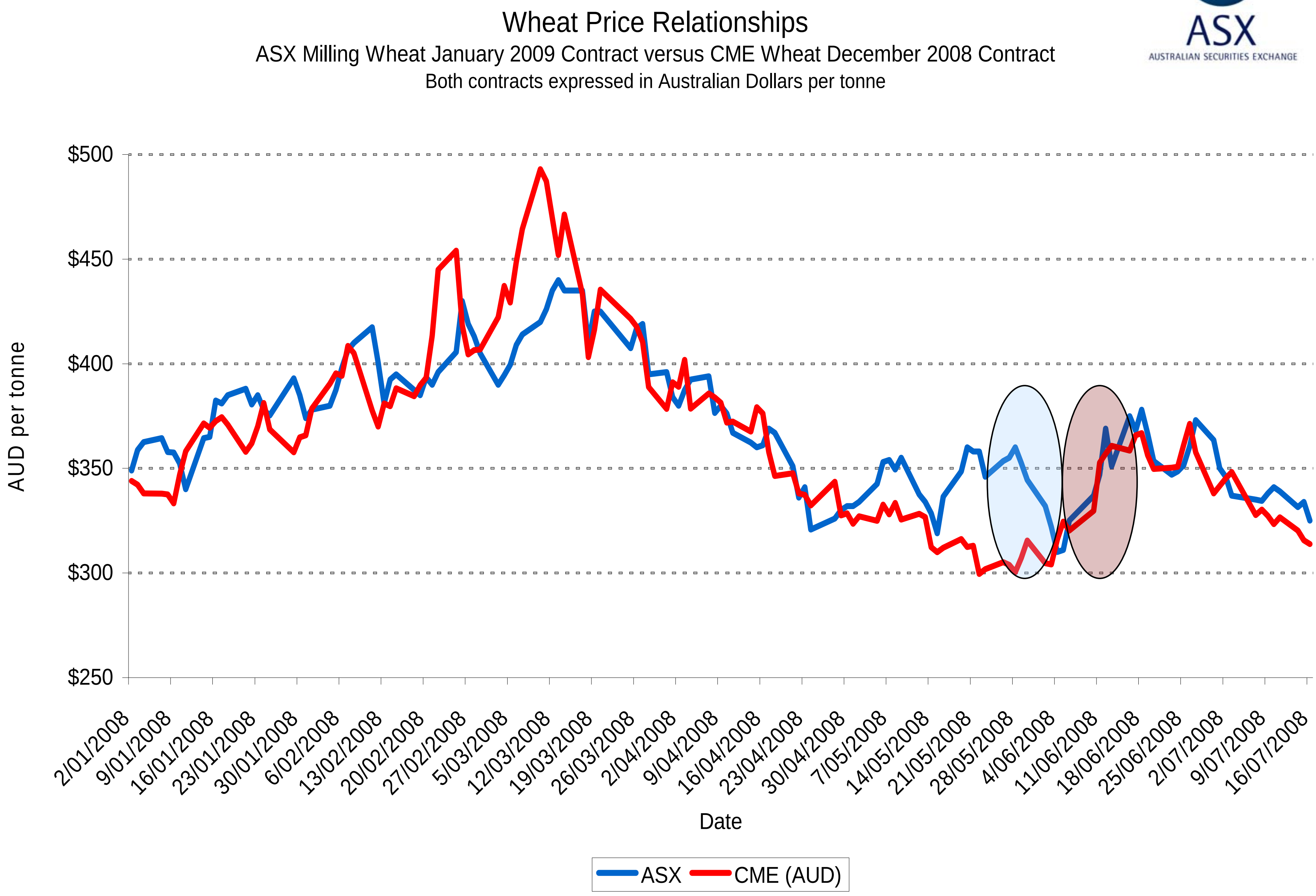
You are interested in establishing a 'Floor Price' for your wheat at $300 NSW Track for this season. What is it you are looking for?

Order	Month	Year	Commodity	Strike / Exercise Price	Type	Premium
Buy	January	2009	Milling Wheat (AWM)	$340	Put	$40
Buy the right.	Underlying futures contract to which the right refers.			The price at which you reserve the right.	The right to sell.	The cost of the strategy.

If the right to sell at $340 is bought for $40, the Floor Price achieved equals $300 ($340 - $40).

Put Option
Jan 06 ASX Milling Wheat
$215 Put purchased for $18 = $197 Floor




Wheat Price Relationships
ASX Milling Wheat January 2009 Contract versus CME Wheat December 2008 Contract
Both contracts expressed in Australian Dollars per tonne
AUD per tonne
$500
$450
$400
$350
$300
$250
2/01/2008
9/01/2008
16/01/2008
23/01/2008
30/01/2008
6/02/2008
13/02/2008
20/02/2008
27/02/2008
5/03/2008
12/03/2008
19/03/2008
26/03/2008
2/04/2008
9/04/2008
16/04/2008
23/04/2008
30/04/2008
7/05/2008
14/05/2008
21/05/2008
28/05/2008
4/06/2008
11/06/2008
18/06/2008
25/06/2008
2/07/2008
9/07/2008
16/07/2008
Date
ASX
CME (AUD)

2008

2008	31st Jan	29th Feb	31st Mar	30th Apr	30th May	30th Jun	16th Jul
	Sold Futures	**Bought Futures**					
ASX AWM9F	$374	$405	$396	$332	$344.50	$363.50	$325
Hedge Return (Cost)		-$31	-$22	$42	$29.50	$10.50	$49

Jan 09 Milling Wheat

High traded price was $450 (26 & 27 Feb 08).

Low traded price (this year) was $307 (5 Jun 08).

How do you access ASX?

- Directly
  - Through ASX brokers (Market Participants).
- Indirectly
  - Through risk management advisers.
  - Using swaps referenced against ASX.

Further information

www.asx.com.au/grainfutures

grainfutures@asx.com.au

Dougal Hunter
Manager
Agricultural Derivatives
ASX Limited

Office: +61 2 9227 0197

Email Updates

Daily Activity Report

Grain Futures Email Update

ASX Education Workshop