

# The Low Carbon Economy SEMINAR

*Risks and Opportunities  
for the Financial  
Services Industry*



Institute of Actuaries of Australia



Thursday 9 October 2008 – Sydney

## **ASX Plans to Support and Service the Carbon Pollution Reduction Scheme**

**Anthony Collins**

**General Manager, Energy & Environment**

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## Outline

- The Role of Financial Markets
- Likely Market Evolution
- Emissions Trading at ASX

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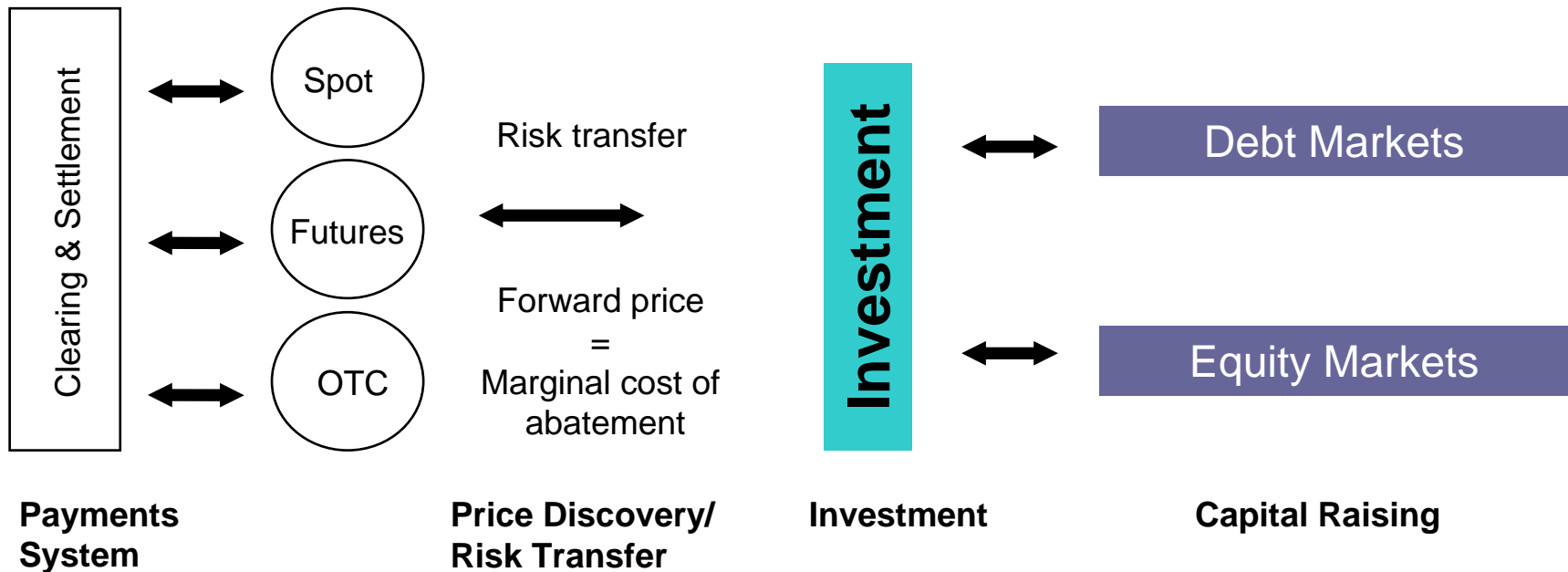
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## The Role of Financial Markets

- The role of financial market infrastructure is to facilitate:
  - liquidity;
  - price discovery;
  - risk transfer;
  - clearing and settlement of trades.



“Liquidity commences and resides predominately within the forward markets”

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1. Forward markets for emission permits will facilitate efficient price discovery and risk transfer.

Forward Markets

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## Australia's Forthcoming Scheme

- 5 years of firm caps extended annually or as per an international agreement.
- A price cap for 5 years (form & level to be determined).
- An additional 10 years of gateways (ie minimum and maximum cap levels) extended every 5 years.
- Scheme Caps will not be finalised until Q1 2010.
- No less than 70% of permits (including some future date stamped permits) to be auctioned.
- Broad coverage.
- Limited potential for linkages.

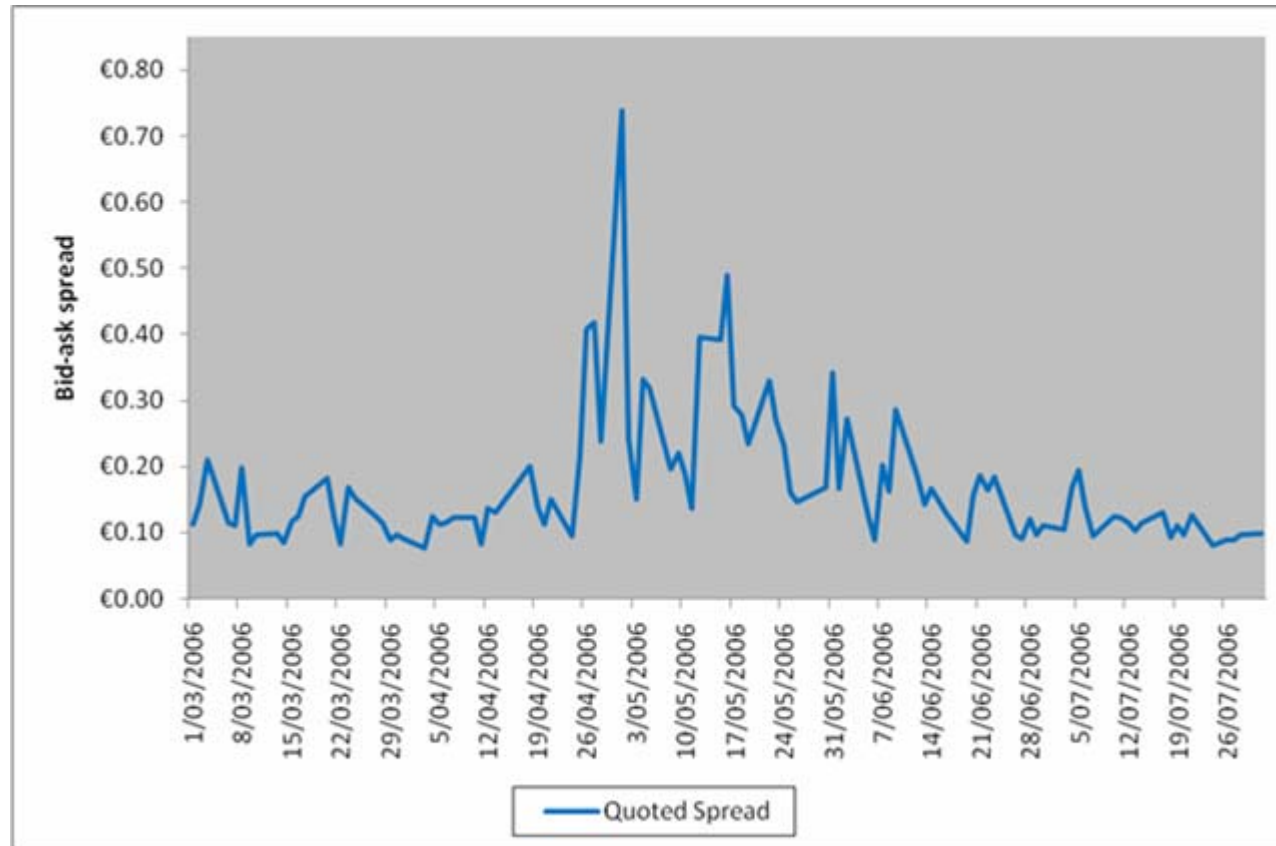
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## The Importance of Scheme Design



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## Australia's Forthcoming Scheme

- The timetable:
  - Jul 08 - Green Paper on scheme design
  - Dec 08 - exposure draft legislation package
  - End 08 - firm indication of planned medium-term trajectory
  - Mar 09 - Bill introduced into Parliament
  - Mid-09 - passage of Bill
  - 3<sup>rd</sup> Qtr 09 - Act enters into force; scheme regulator established
  - ASX futures & options listed
  - 3<sup>rd</sup> Qtr 09 – national registry is operational
  - Early 10 - first auction of emission permits
  - ASX Austraclear safe-keeping & settlement services
  - 1 Jul 10 - formal commencement of scheme
  - 30 Jun 11 - end of first compliance period
  - 31 Oct 11 - dead-line for companies to report their emissions
  - 15 Dec 11 - dead-line for surrender of permits

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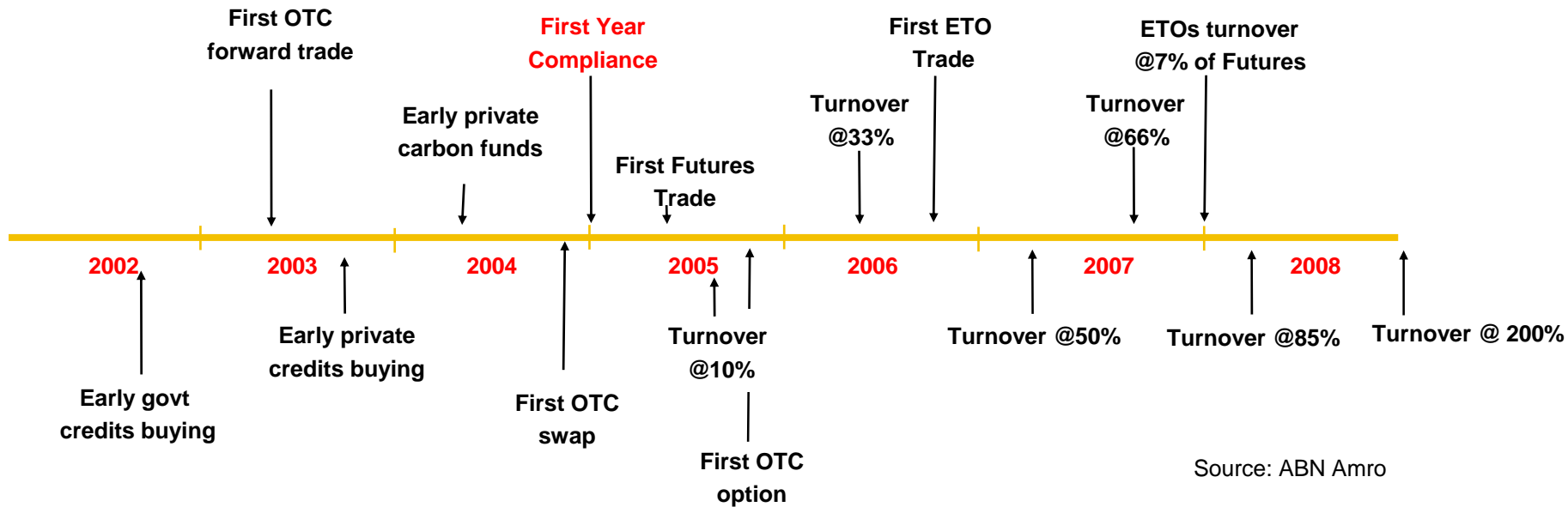
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## Market Evolution (Europe)





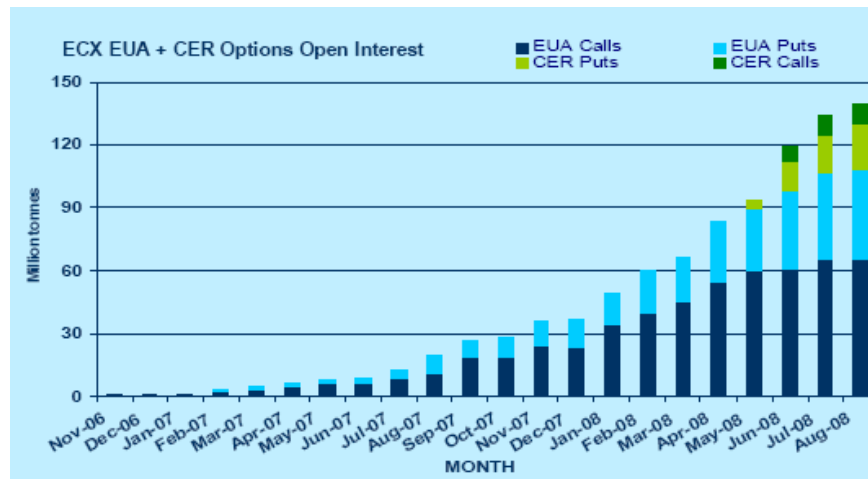
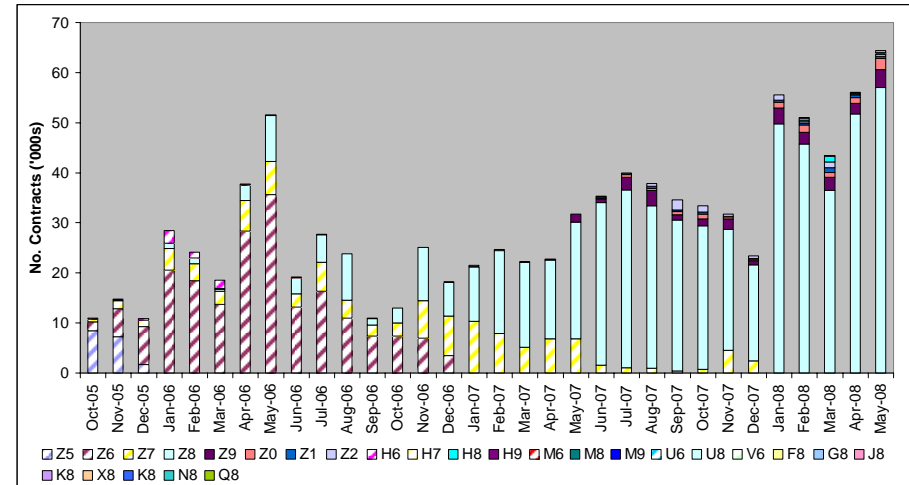
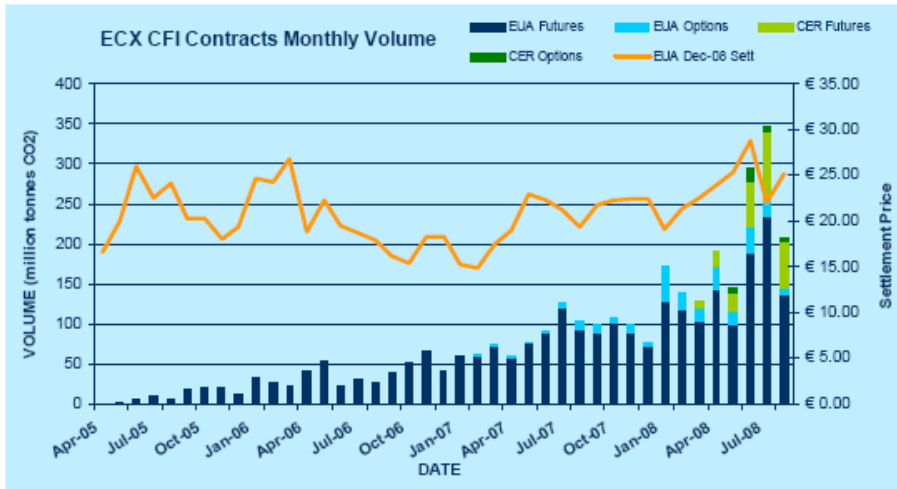
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## Market Evolution (Europe)



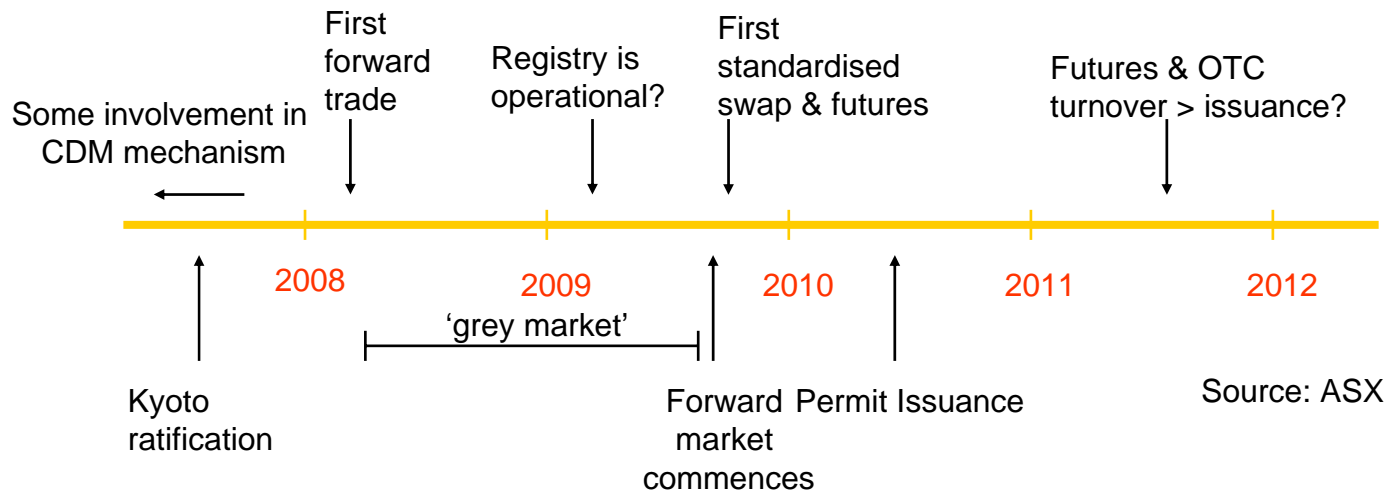
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## Likely Market Evolution (Australia)



Scheme	EU ETS	AETS	NZ ETS
Approx. size of cap pa (Mt)	2000	420	30
ADV futures equiv. (1,000 permits)	7,870	1,653	118

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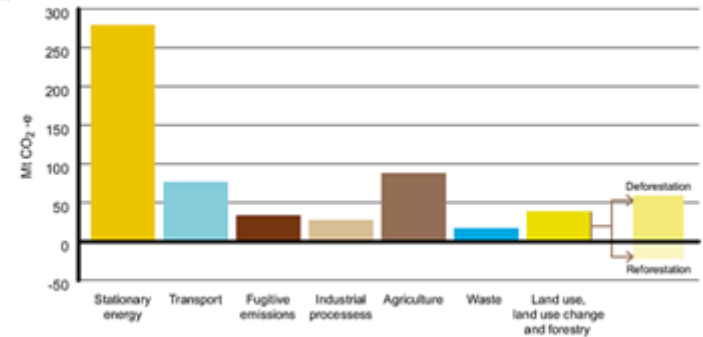
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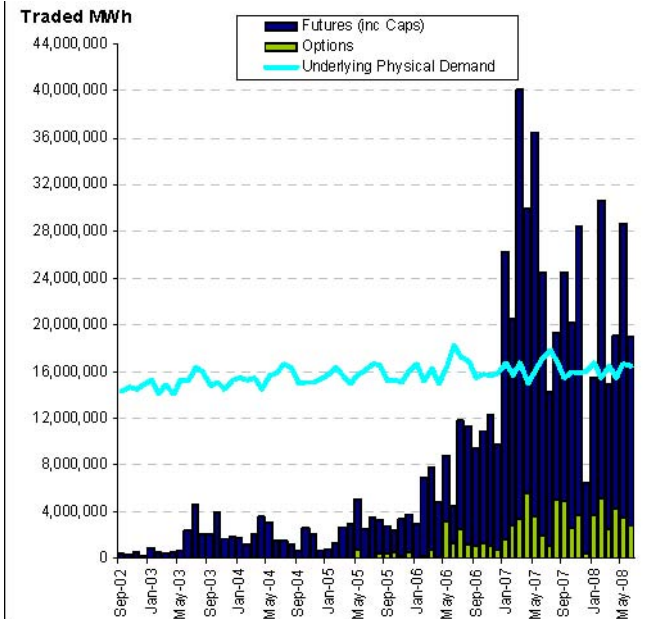
## Likely Market Evolution (Australia)

Australia's national emissions profile in 2006

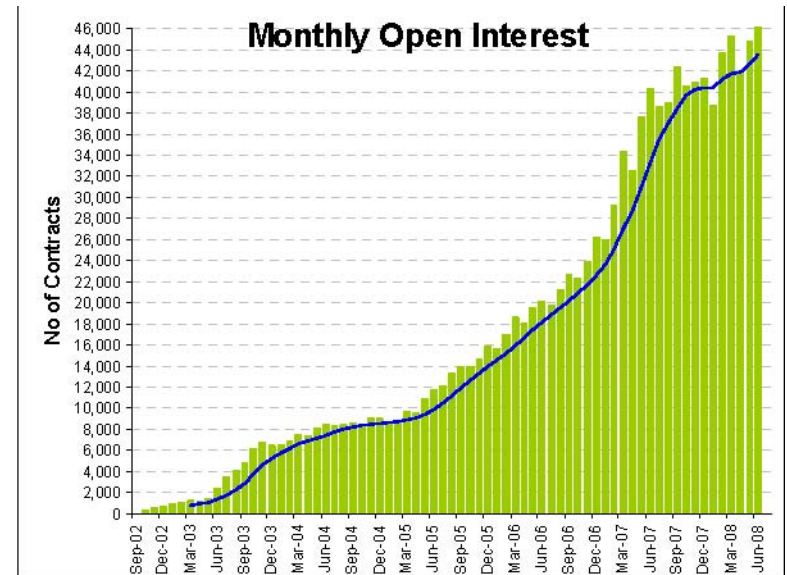


Source: National Greenhouse Gas Inventory 2006, Department of Climate Change

## Electricity Futures & Options: Volume



## Electricity Futures & Options: Open Interest



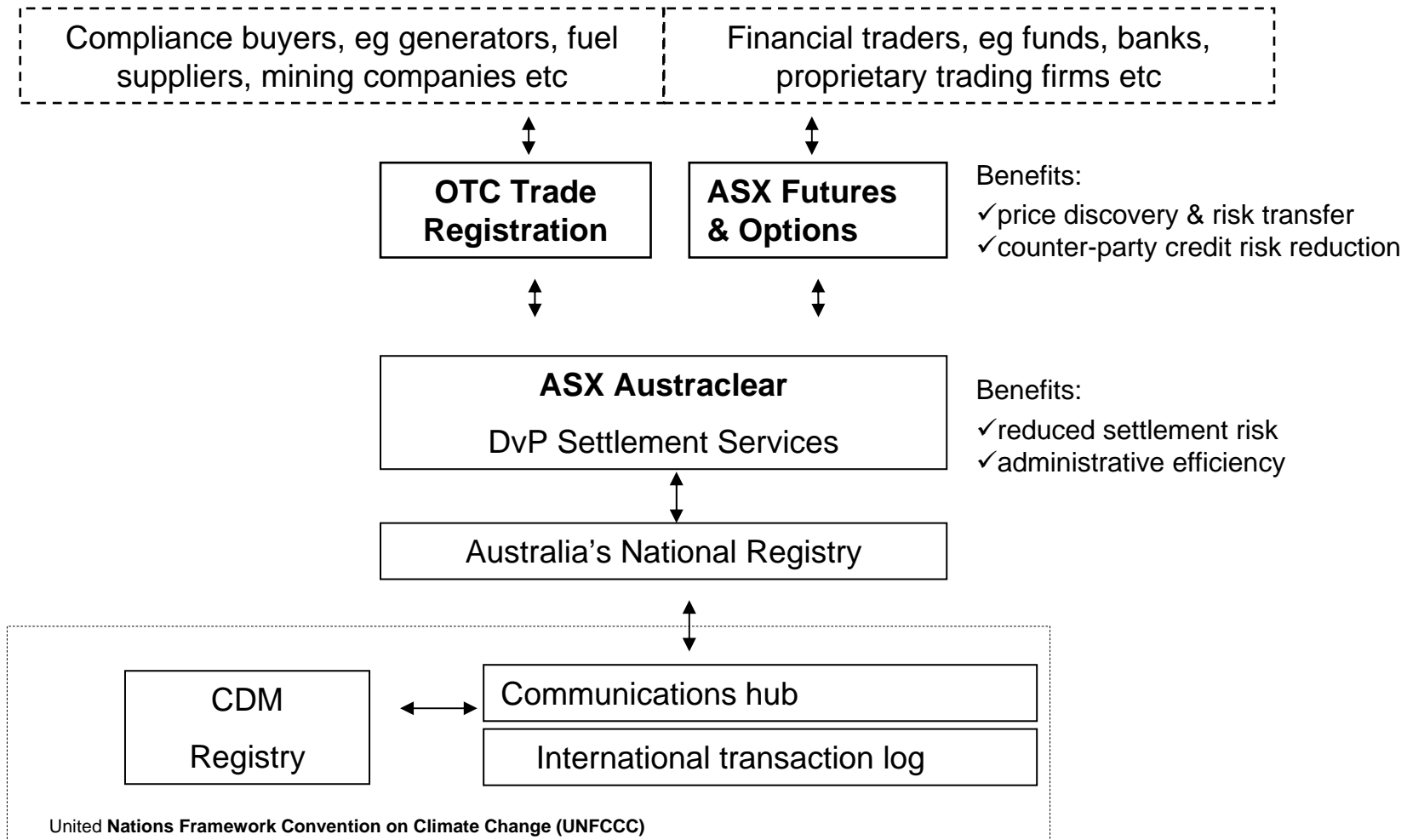
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## Emissions Trading at ASX



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## ASX Carbon Pollution Permit Futures

Unit of Trading	One lot of 1,000 carbon pollution permits.
Price Quotation	Australian dollars (\$) and cents (c) per metric tonne, eg \$32.55.
Contract Month	Financial year expiries for the first 5 years of the ETS.
Last Trading Day	15 November or prior Business Day.
Delivery	Delivery via Austraclear on the business day following the last trading day.

### Benefits:

- ✓ a low Block Trade threshold to facilitate the registration of trades from the OTC market
- ✓ the largest clearing house in the Asia Pacific (by value)
- ✓ market to open 24 hrs x 5.5 days
- ✓ global distribution via ASX trading hubs in major financial capitals
- ✓ existing connectivity to all major investment banks and brokerage firms
- ✓ capital efficiency through margin offsets with electricity, RECs, gas and coal

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## Austraclear Safe Keeping and Settlement Services

Equity - ACHO2035

Participant: AC ACHO (AUSTRACLEAR LIMITED HEAD OFFICE)

Counterparty:

Series:  Description:

ISIN:  Issuer:

Side:  Buy  Sell Agreement type:

Trade date:  Sub participant:

Settlement date:  SSI:  Yes  No

Quantity:  Sub account:

Price:  Cash record:

Novation:  Yes  No Settle currency:

Payment settle:  Yes  No

Sell settlement instruction:

Information:

Participant ref:

Consideration:

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## Key Points

- The cost of investment uncertainty  $>$  the cost of climate change or mitigation efforts.
- Price discovery and risk transfer will commence and reside predominately within the forward markets.
- Efficient price discovery and risk transfer will in turn underpin informed investment in low emissions technologies and abatement at least cost.
- Many firms will use Australia's debt and equity markets operated to raise capital to develop and/ or deploy new low-emissions technologies.

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**For more information:**

[www.asx.com.au/emissionstrading](http://www.asx.com.au/emissionstrading)