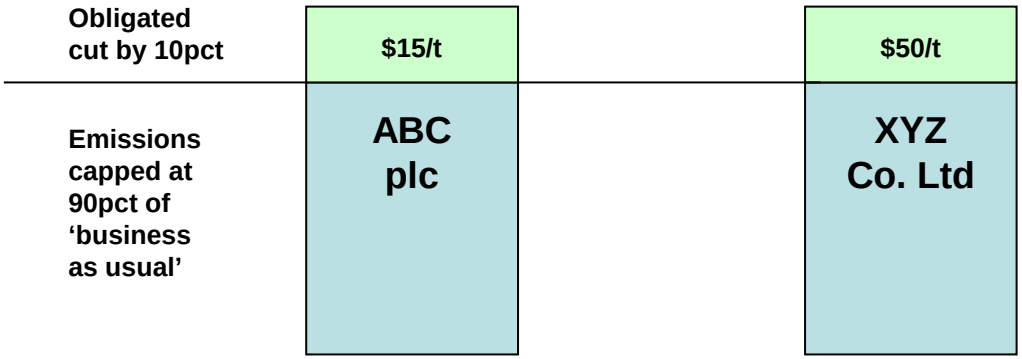
Carbon Emissions Trading for Shipping

MITSUI BUSSAN COMMODITIES LTD

How does Cap and Trade work?

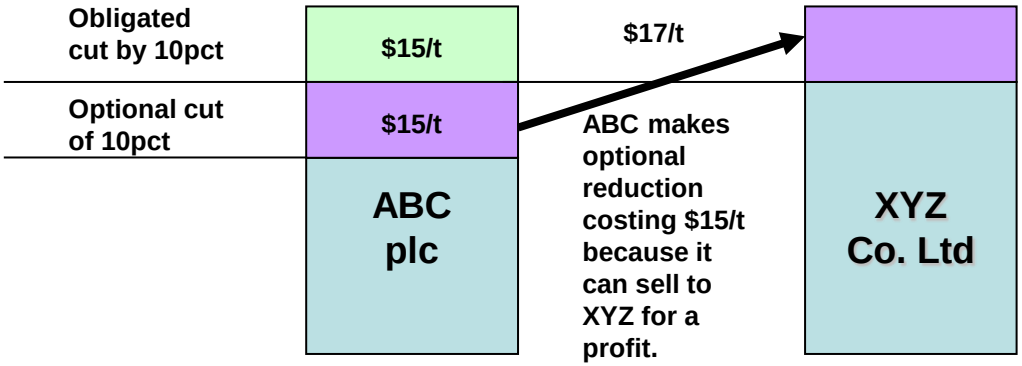
Lets consider two companies with identical emission totals and required cuts but with differing costs of abatement

Limit on emissions but no trading



	ABC plc	XYZ Co. Ltd
Cost to abate 1tonne of CO2	$15/mt	$50/mt
Cost to abate 10,000t	$150,000	$500,000
Total combined cost	$650,000	

Cap and Trade



	ABC plc	XYZ Co. Ltd
Cost to abate or buy 1tonne of CO2	$15/t less $2/t of profit from sale to XYZ	$17/mt
Cost to abate or buy 10,000t	$130,000	$170,000
Total combined cost	$300,000	

Same 20,000t cut in emissions, half the cost due to Cap and Trade

Cap and Trade – Abate or Emit?

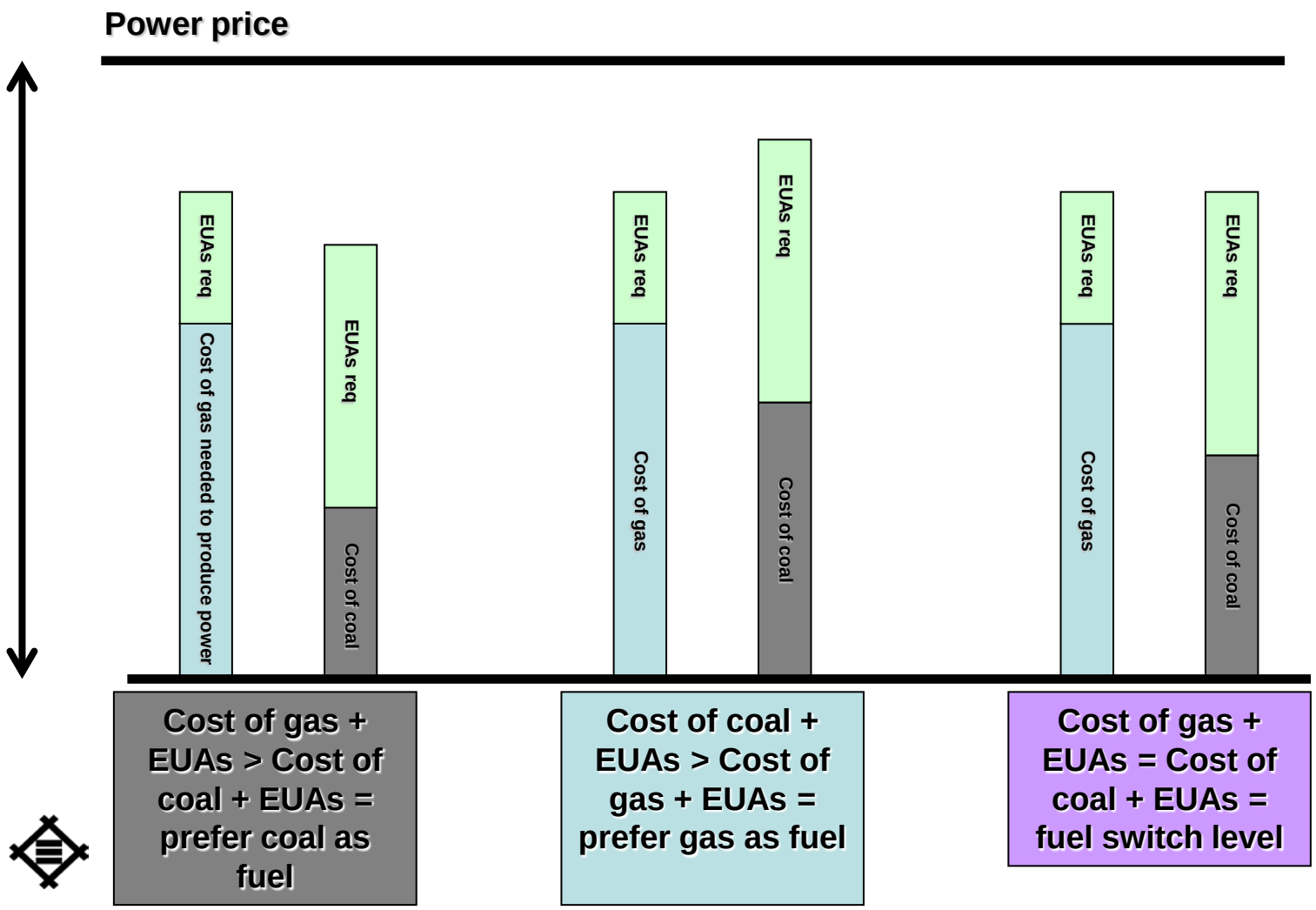
Decisions on the volume of carbon emissions require each EU ETS participant to have knowledge of both the cost to abate and market price to buy the emissions.

As we saw in the previous example Cap and Trade uses market mechanisms to seek out the cheapest abatements across the scheme. Focus on overall emission reduction target, not per operator.

With incentives for fuel efficiency already well entrenched, it is likely that shipping will compete to buy allowances from the wholesale secondary market.

What influences emission allowance prices?

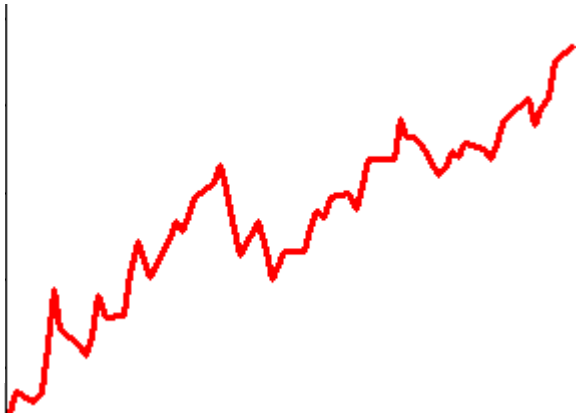
1. Potential for fuel switching in European Power Production



What influences emission allowance prices?

2. The broader economic picture

Positive economic news = increased demand for power, goods = higher carbon price

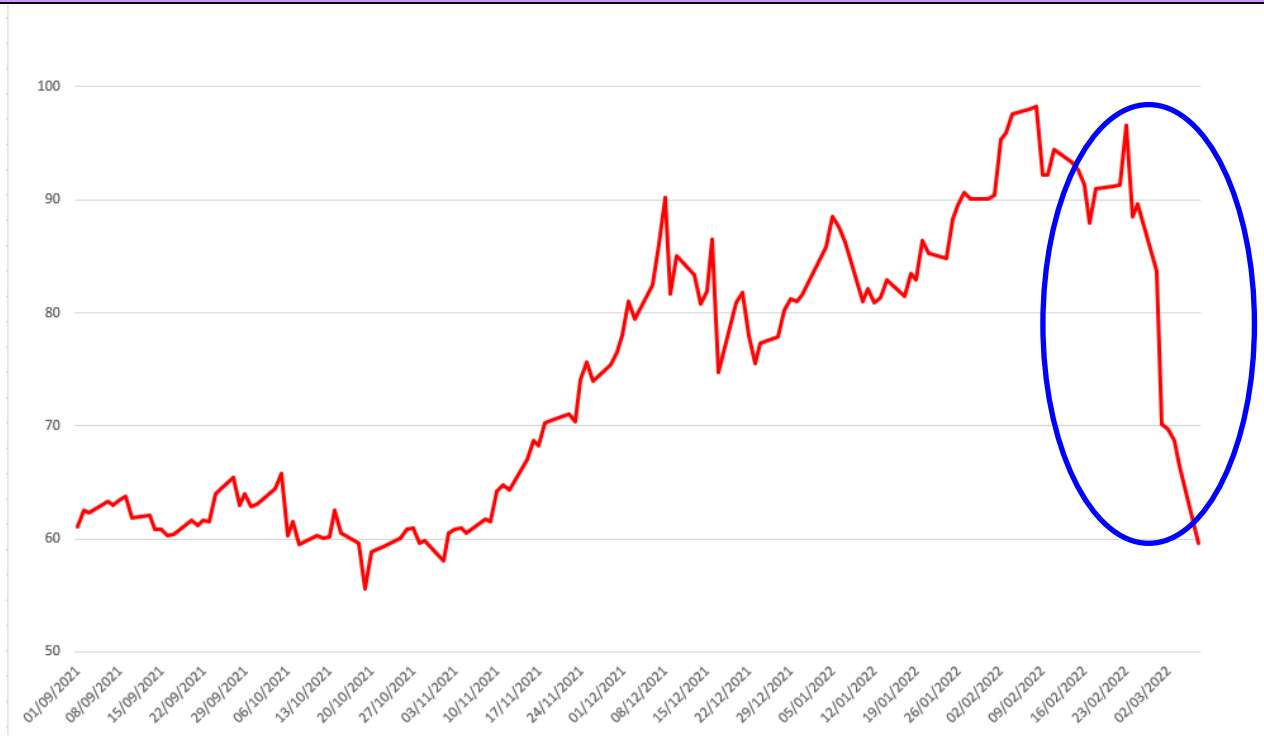


Poor economic news = decreased demand for power, goods = lower carbon price

What influences emission allowance prices?

3. News with direct impact upon emissions

Conflict in Ukraine causes gas prices to dramatically rise. Initial assessment of impact on EU economy is lower use of gas for power production, decreasing economic activity, hence lower than expected emissions and therefore less demand for EUAs.



Source – MBCL internal marks

What influences emission allowance prices?

4. Weather

A hot summer increasing power demand for air-conditioning

A cold winter increasing demand for heating

Windy conditions allowing renewable wind energy to produce

A wet winter raising levels of water stored for hydro power

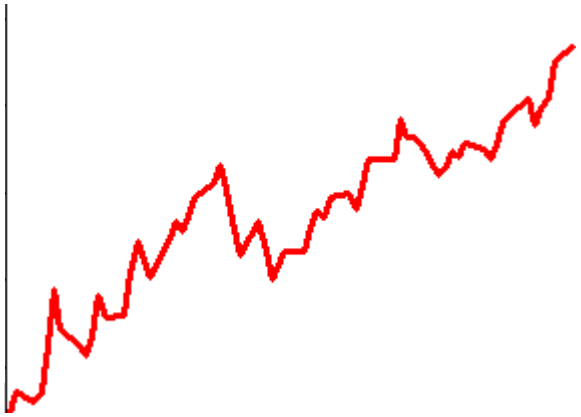
What influences emission allowance prices?

5. Supply of allowances

The supply of allowances is from a finite source. Additional volume brought into the market whether from scheduled auctions or release from MSR will affect the price.

Auction volumes of EUAs.

If supply bigger than demand, price falls. When demand exceeds supply, price rises.



What else influences emission allowance prices?

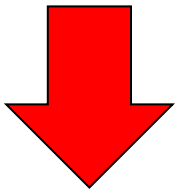
6. Policy announcements

- Tighter caps, increased Linear Reduction Factor
- Legal challenges, rulings
- Changes in auction schedules – Eg. REPowerEU
- EU emission reduction targets – Eg. ‘Fit for 55’
- Annual verified emission reports
- Overlapping policies – Carbon Border Adjustment Mechanism
- Details of industrial emissions benchmarking
- And many more, it’s not simply another commodity market

Upside and Downside price risks remain

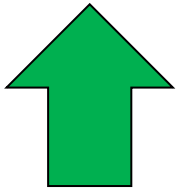
Downside risk

- Energy efficiency, industrial abatement technology rolls out quickly and at cheaper prices than expected
- Coal phase-out leads to significantly lower demand/supply balance than anticipated
- Fuel switch economics see gas replacing more coal as power fuel
- Weak economic growth
- Ambition dialled back due to economic circumstances



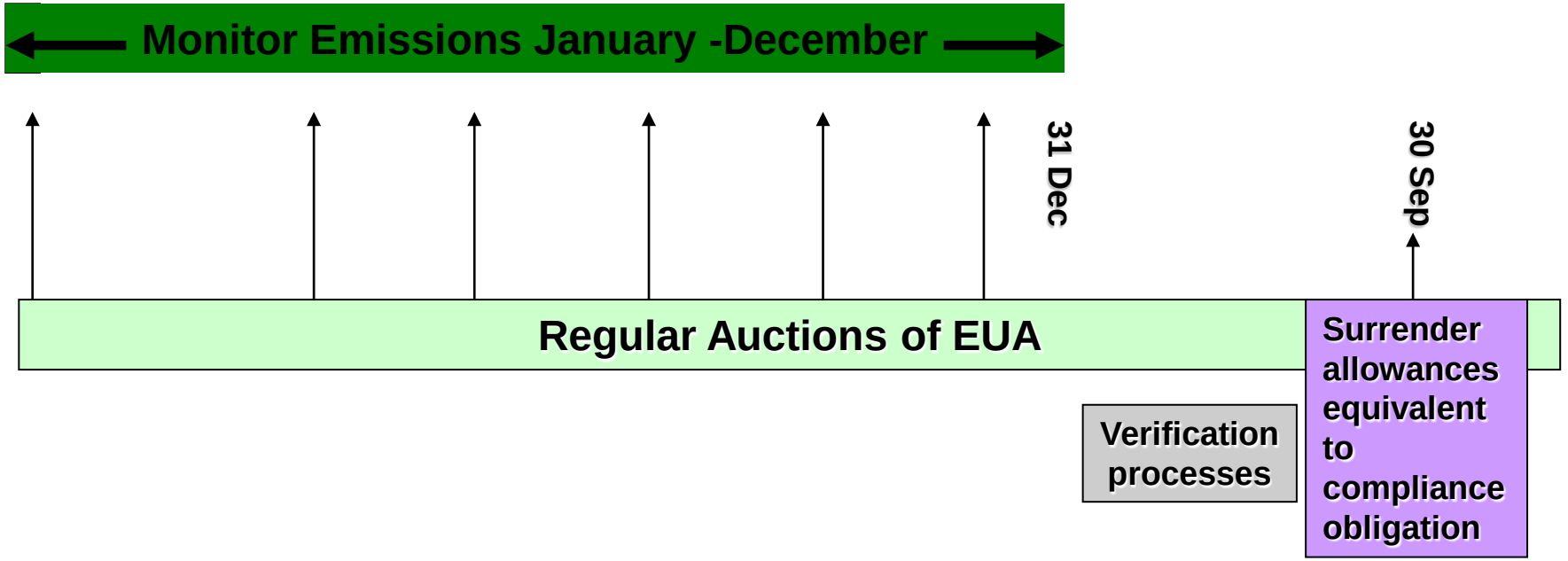
Upside risk

- Political ambition to encourage private investment in emission reductions sees prices rise to levels to drive fuel switch and encourage private investment in industrial abatement.
- Potential for further tightening of EU ETS
- Stronger economic growth
- Price signal from fuel switch sees more coal in power production



Refer to our weekly commentary for:
market events explanation and
technical analysis (support and resistance levels)

The EU ETS Year



When does your price exposure become realised?

EUA – a more proactive approach hedging?

Financial risks of EU ETS have become real!

After the price rises and volatility of recent years the financial exposure from having a reactive approach to hedging EUAs have been realised.
Just waiting until shortly before compliance deadline to buy has been exposed for the gamble that it was.
You can choose to hedge your exposure when it arises without paying for the allowances upfront.
Cashflow becomes an important consideration at higher prices. If you hedge using forwards and you can still pay approaching the compliance deadline whilst protecting your exposure to even higher prices now.
BUT you will have counterparty risk, do not underestimate it.
In EU ETS companies develop policies to manage their exposures to volatile prices by hedging when exposure becomes realised, when they agree deals that give rise to large requirements or by layering hedges over time eg. minimum of 25pct by 2 years ahead, 50pct by 1 year ahead, 75pct by 6 months ahead.

Counterparty Risk

Trading losses or third party failure can and do cause financially weak counterparties to fail, potentially taking your assets with them!

High prices put a strain on the finances of not just compliance installations but also companies providing hedging solutions in EU ETS. This is especially true for small traders who only deal in emissions and do not have the financial resources and balance sheet of a large multi-national company with several business lines.

What is their net worth/Equity? Is the risk you are taking >10pct of their Equity?

Do they have cash/bank accounts on balance sheet which they could use if their circumstances change? If not, what about headroom on bank lending facilities?

What is their current ratio? (a measure of liquidity - current assets/current liabilities) Is it >1?

Do they have a recognised credit agency rating? Is it investment grade or better?

STANDARD & POOR'S LONG-TERM RATING	MITSUI & CO., LTD.	MOODY'S LONG-TERM RATING
A		A3

MITSUI BUSSAN COMMODITIES LTD. ("MBC")

Documentation Risk

Market standard documents: ISDA, IETA, EFET

Master agreement/Emissions annex specifically deals with trading under EU ETS

Legal certainty about the enforceability of document

Short form bespoke documentation might be easy to understand but often will not protect you when unexpected problems occur.
Market Standard Documentation has been tested in court, therefore you can have much greater confidence on it to protect you when things go wrong.

Why should I care?

At current higher and volatile prices you do not just have settlement risk when buying forward. Eg. If you buy forward from Company A @ EUR 75.00 and price rises to EUR 150.00 you have a large financial exposure. If Company A becomes bankrupt you are unhedged, you must now buy at market.

Does local law recognize EUAs as a financial debt/obligation?
Can you take counterparty successfully to court to regain losses?

How to trade in the market?

	Trade Spot	Trade Forward	Buy Option	Trade Indexed	Buy at Auction
	Buy allowances for delivery in next few days	Fix a price for allowances to be delivered at a future date	Buying an option gives the right but not the obligation to buy allowances at a future date. Limited flexibility in terms of expiries, strike prices.	Trade linked to average published settlement prices over an agreed period	Compete to buy EUAs set aside to be sold at auction
	Low/No utilisation of credit lines. When used to cover exposure from journeys already made eliminates potential for adverse price movement before compliance.	Enable budgeting of emissions costs in the future. Allows cash to remain available to the business until nearer compliance date. Removes risk of adverse price movement.	Removes risk of adverse price movement whilst retaining ability to benefit from favourable move. Low/No utilisation of credit lines.	Smoothes price volatility over agreed period. Can be used for forward hedging but likely limited to December or spot deliveries.	Transparent price
	Makes it difficult to budget emissions costs on a forward basis. Ties up cash now that may be better put to use in the business Requires a trading account now which could cost money and is unnecessary for a compliance entity in EU ETS.	You have counterparty risk, need to choose your trading partner carefully. Requires credit lines and potentially collateral agreements.	Significant minimum size required 50k+ per deal. Illiquid market with few market makers, closing out positions if required can be a challenge. Upfront premium may be payable.	Minimum volumes per day can be a challenge. You commit to buy a specific volume before you know the price.	Spot deal – same issues. Once a day auction time reduces flexibility in a volatile market damaging ability to time purchases on intra-day dips. No guarantee that your bid will succeed in volume or price.

What can Mitsui offer?

Expert in trading

Employs experts with knowledge of local market
Management active in EU ETS trading since the beginning
Direct access to experts for market analysis and prices
One of the largest liquidity providers to compliance entities in EU ETS

Strong credit worth entity

Global commodity trader with very strong strong financial profile
Highly rated and creditworthy counterparty
Able to offer credit facilities for forwards not just spot

Customer approach

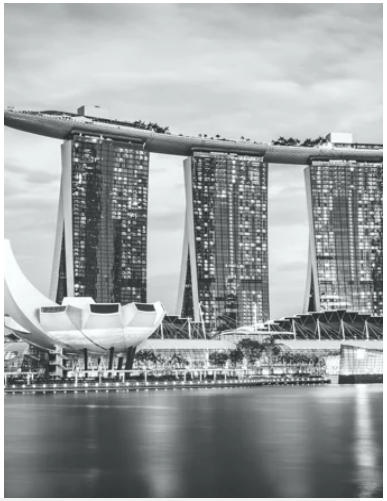
Value long-term client relationship over quick profit
Work firm orders to capture brief opportunities in fast moving market
Weekly market analysis and ad-hoc reports

Contacts

Chia Ren Neo – Head of Energy	+33 1 75 85 09 13	chiaren.neo@mbcl.com
Ziad Ghusayni, Head of Energy Sales, UKMEA	+44 207 489 6745	ziad.ghusayni@mbcl.com
Oliver Graves, Head of Energy Sales, Europe	+44 207 489 6758	oliver.graves@mbcfrance.com
Kenneth Low, Head of Asia Sales - Energy	+65 6372 8039	kenneth.low@mbcl.com
Yasumasa Tsugane, Senior Marketing Manager (Mitsui & Co., Ltd.)	+81 3 3285 3713	y.tsugane@mitsui.com

1st Floor, Warwick Court
5 Paternoster Square
London, EC4M 7DX

112 avenue Kléber
75116 Paris, France



12 Marina View, #12-01
Asia Square Tower 2
Singapore 018961

200 Park Avenue
New York, NY 10166