

## Appendix 1 Change in Freight Option Margining Methodology

- **Current margining method:**

When calculating each of the 16 scenarios in London SPAN, freight futures positions are shifted using formula:

$$\text{Scanning Range} \times \text{Scenario Multiplier} \times \text{Tier Discount Rate}$$

Where: *Scanning Range* is as specified in LCH.Clearnet margin circulars

*Scenario Multiplier* is used for scaling the Scanning Range in each scenario

*Tier Discount Rate* is specified by LCH.Clearnet based on the contracts' delivery dates

However, the underlying price shifts used for valuing each scenario on freight options position are currently calculated using formula:

$$\text{Scanning Range} \times \text{Scenario Multiplier}$$

As the shifts used for options are currently overstated by not taking the *Tier Discount Rate* into account, members with options positions in their freight portfolio might be either over margined or under margined depending on the structure of each portfolio.

- **New margining method from 22 March 2010 onwards:**

No change for the shifts on futures:

$$\text{Scanning Range} \times \text{Scenario Multiplier} \times \text{Tier Discount Rate}$$

The underlying price shifts used for freight options will be changed to the same one for futures:

$$\text{Scanning Range} \times \text{Scenario Multiplier} \times \text{Tier Discount Rate}$$

To minimize the operational impacts for members, LCH.Clearnet incorporated the changes into the calculation of the risk arrays during the generation of the parameter files in the version of London SPAN used for EnClear. The change will appear invisible to members and back office providers as the format of the parameter file is not changing and therefore **NO** technological change is required to be taken by members. The actual margin impact of this change for each member is dependent on the composition of each member's freight portfolio as at the end of day **22 March 2010**. In general terms:

- Members with only futures position: No margin impact if all else equal
- Members with only freight options position: margin may decrease if all else equal
- Members with both freight futures and options position: margin may either increase or decrease depends on the actual futures/options composition