

PANEL SESSION 1
GLOBALISATION OF THE NATURAL GAS MARKETS

Dr Chawki Mohamed RAHAL

Executive Vice President

Sonatrach

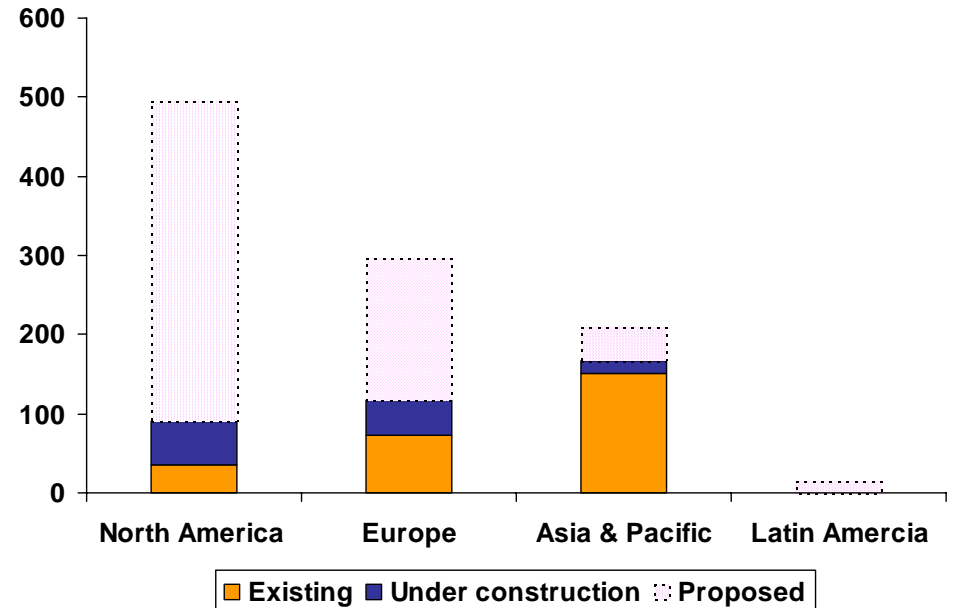
November, 24th 2008

AFTER THE US AND UK MARKETS LIBERALIZATION OF THE EUROPEAN GAS MARKETS



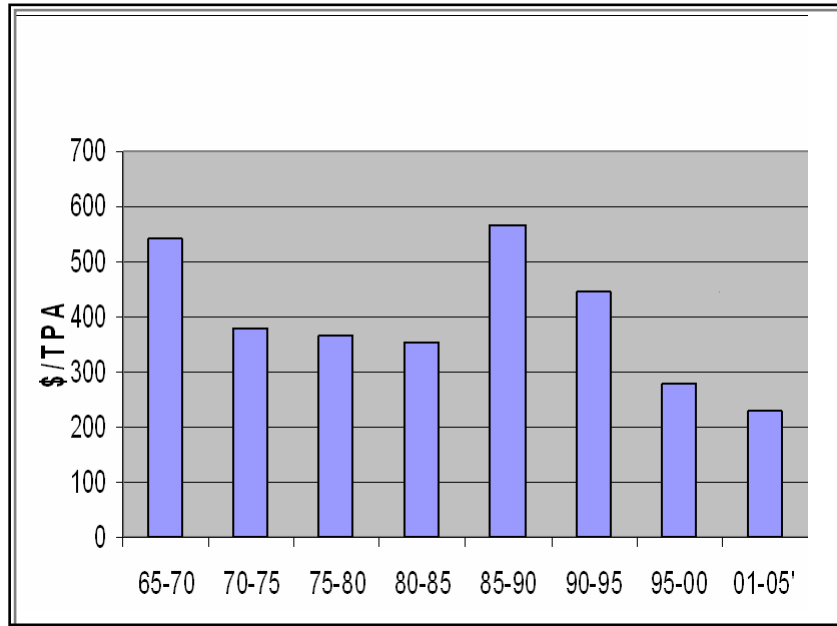
- Increasing number of players, new role of utilities (gas in power generation..)
- Newcomers seeking to have direct access to gas supplies from producers

THE MULTIPLICATION THE ENTRY POINTS



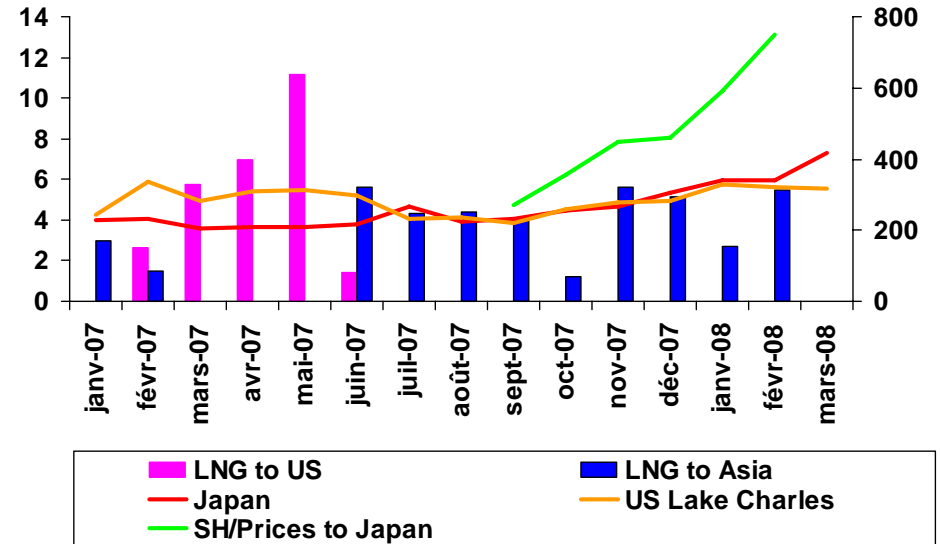
- More regas capacity available throughout all of the markets,
- Access to some markets not a constraint anymore,

LIQUEFACTION AND SHIPPING EPC COST DECREASE IN THE 90'S



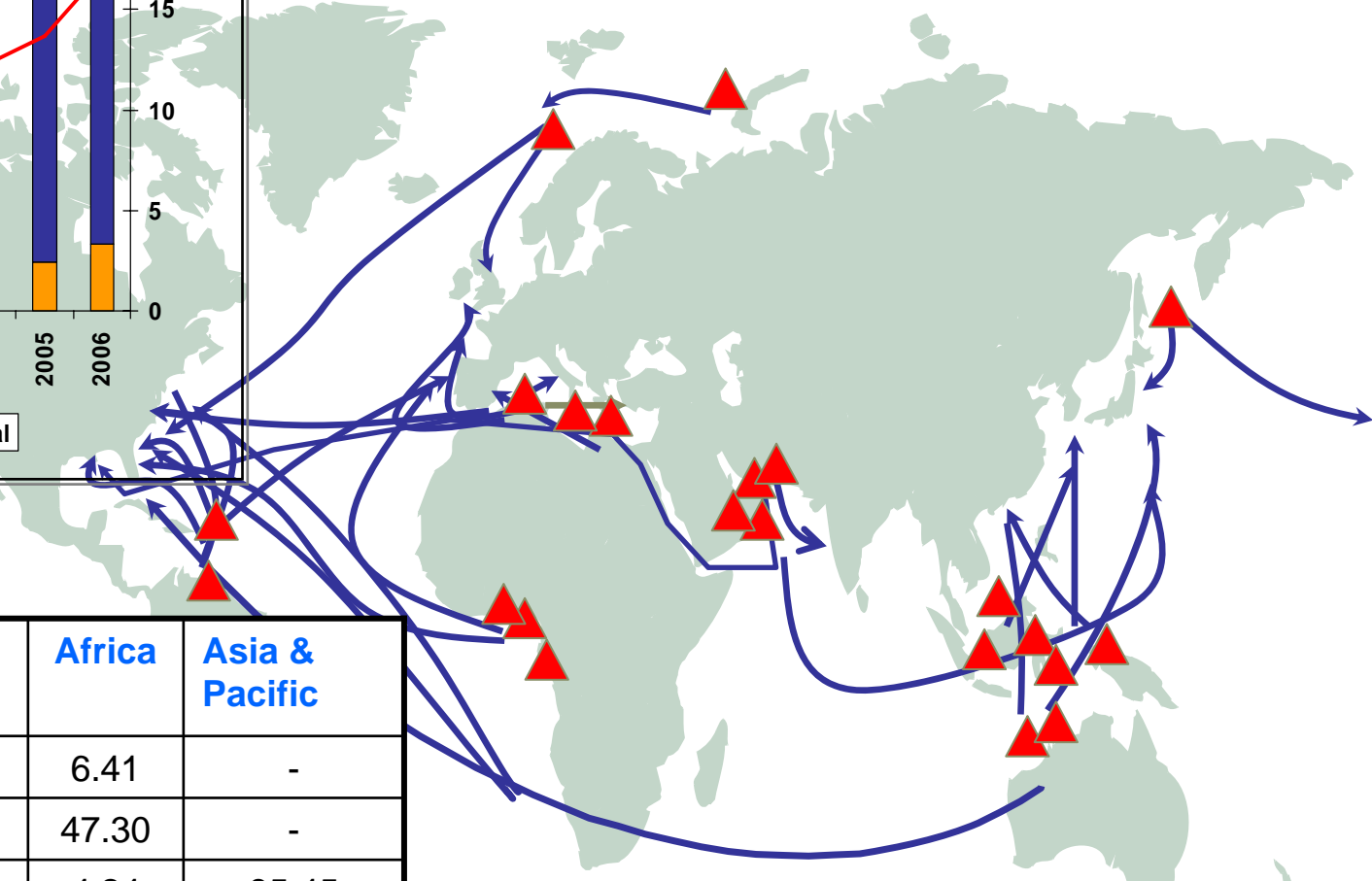
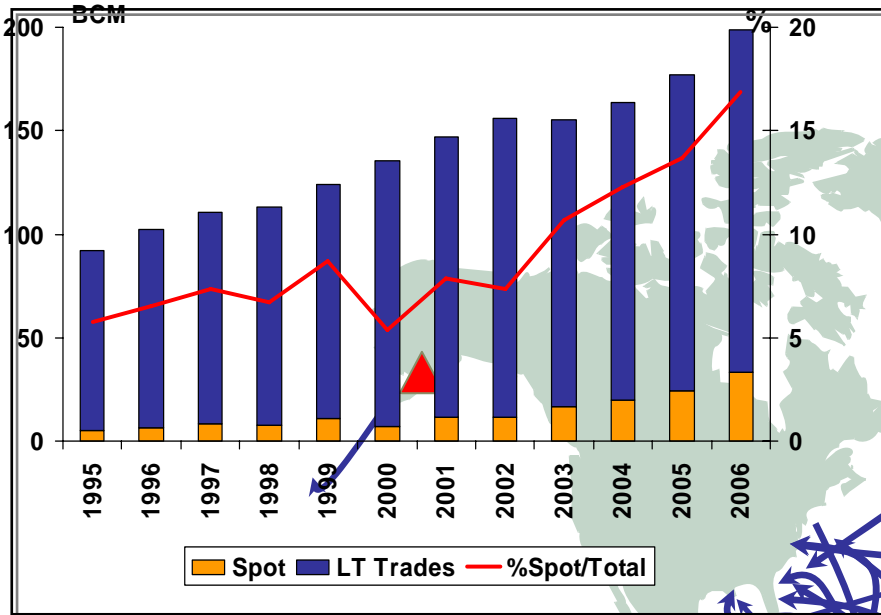
- Economic attractiveness of LNG Chain
- New developments in facilities and shipping not totally committed

PRICE DIFFERENTIALS BETWEEN MARKETS



- US call on LNG
- Some regional supply disruptions,
- Competitiveness of LNG vs alternative fuels in a high oil price environment.

GROWING ARBITRAGE OPTIONS AND A SIGNIFICANT INCREASE IN LNG VOLUMES DEDICATED TO SHORT TERM TRADING



BCM	America	Middle East	Africa	Asia & Pacific
America	11.98	0.08	6.41	-
Europe	3.76	6.36	47.30	-
Asia & Pacific	2.23	43.27	4.24	85.45
Total Exports	17.97	49.71	57.95	85.45

- Large number of routes linking the three markets
- Spot volumes are still marginal.

- Interactions between markets exist, but regulatory, operational and technical constraints constitute major obstacles to a real global market among which:
 - ✓ Gas quality,
 - ✓ Regas terminals characteristics,
 - ✓ Access rules/Utilisation rules
 - ✓ Etc,...
- Within Europe, the lack of interconnection between country members and the regulatory differences are major constraints for emergence of a real single gas market,

TODAY INCREASED MARKETS LINKAGE RATHER THAN FULL GLOBALISATION OF NG MARKET

- Globalisation means a large number of:

- Sources
- Outlets

⇒ **Globalisation results in energy security**

- Globalisation also needs security of demand

- Removal of regulatory constraints for market access
- Establishment of clear rules of infrastructure development, utilisation and management of excess capacity
- Non discriminatory right of establishment

- **Gas industry is capital-intensive**

- ⇒ **The current financial and economical crisis could modify the strategy of some actors who could be forced to avoid any speculative investments, and as a consequence reduce the LNG volume dedicated to short term trade.**

- **Pricing issues : Oil index or gas index?**

- ⇒ **There is no international market reference. HH index which once was considered as a potential world price reference is today disconnected from other markets.**

- **Price volatility cannot be compatible with long term development of the gas industry.**

Gas markets are

- ✓ today and for some long time to go dominated by long term contracts

SECURITY OF SUPPLY + SECURITY OF DEMAND

- ✓ Dominated by regional and illiquid markets with a trend towards greater linkage/globalisation

NECESSARY PROCESS BUT STILL A LONG WAY TO GO.

*THANK YOU FOR YOUR
ATTENTION*