



# Managing LNG in a volatile scenario: the value of flexibility

**Ane de Ariño**

- 1. Recent years Outlook**
  - 2. Turning Point of the market**
  - 3. Flexibility as the balancing tool**
  - 4. Lessons learnt and conclusions**
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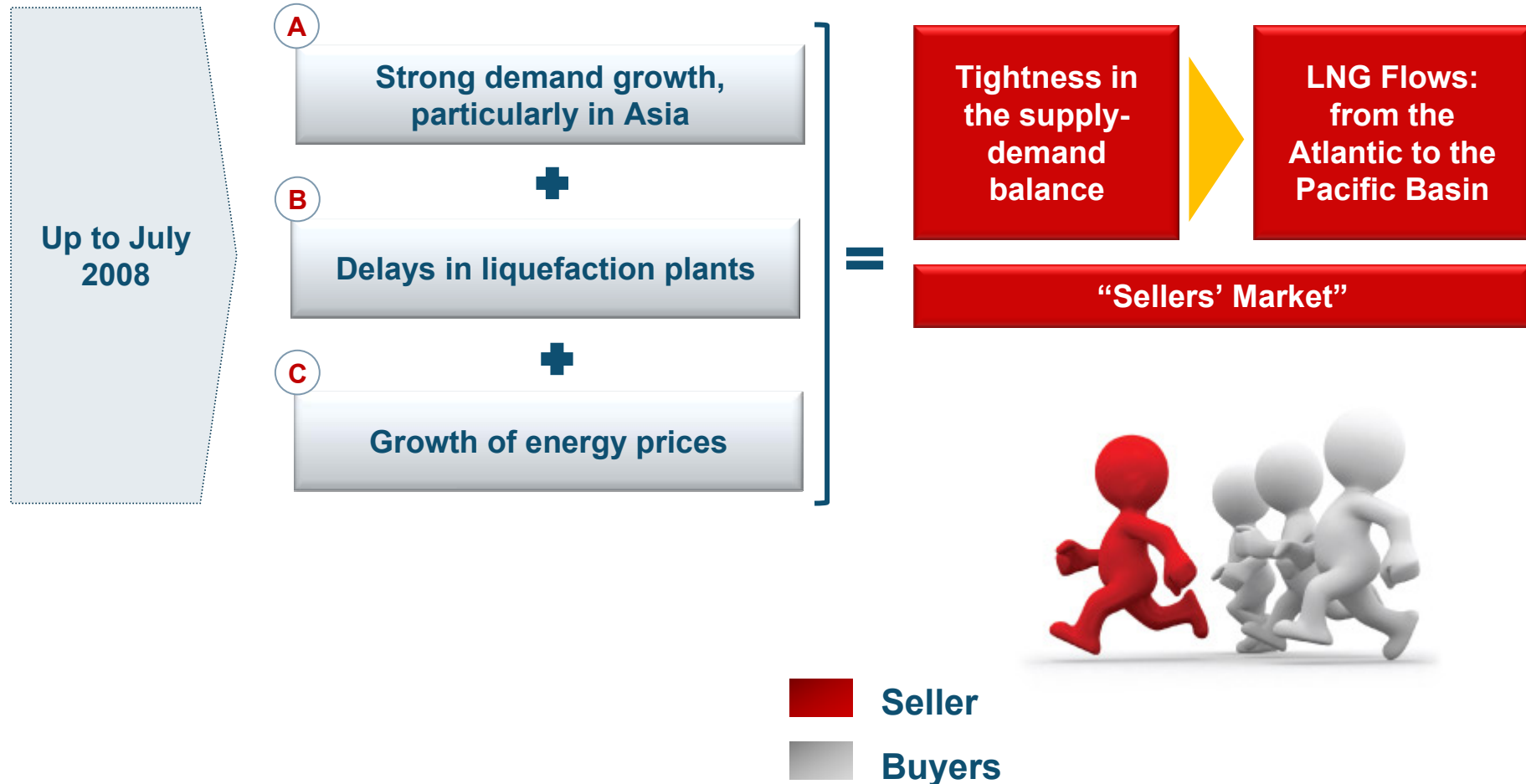


**1**

**Recent years outlook**

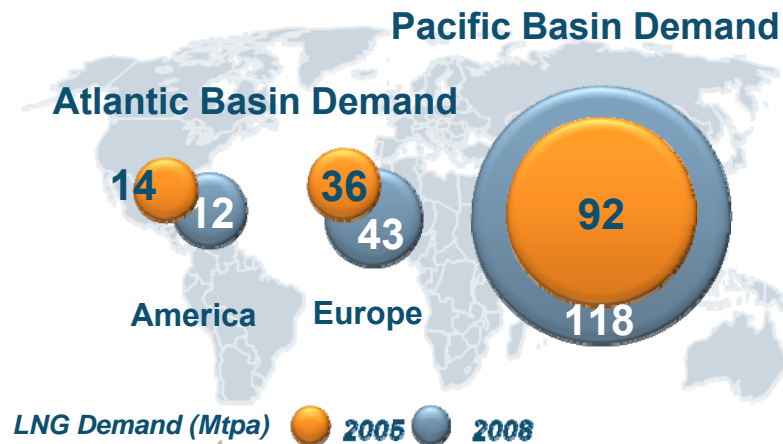
# 1 Recent Years Outlook

## 2007 and 2008 LNG Market Outlook



# 1 Recent Years Outlook

## A Strong demand growth, particularly in Asia

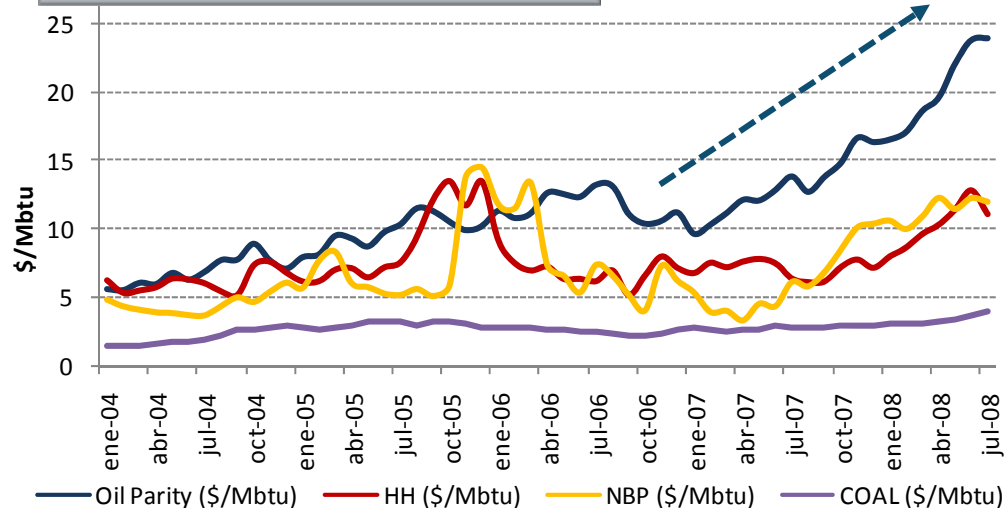


## B Delays in liquefaction plants

### Plants delayed during 2007-2008

Nigeria T5-T6	8,1	Mtpa
Rasgas II	9,4	Mtpa
Qatargas II	15,6	Mtpa
Snøhvit	4,2	Mtpa
Sakhalin II	9,6	Mtpa
<b>TOTAL</b>	<b>46,9</b>	<b>Mtpa</b>

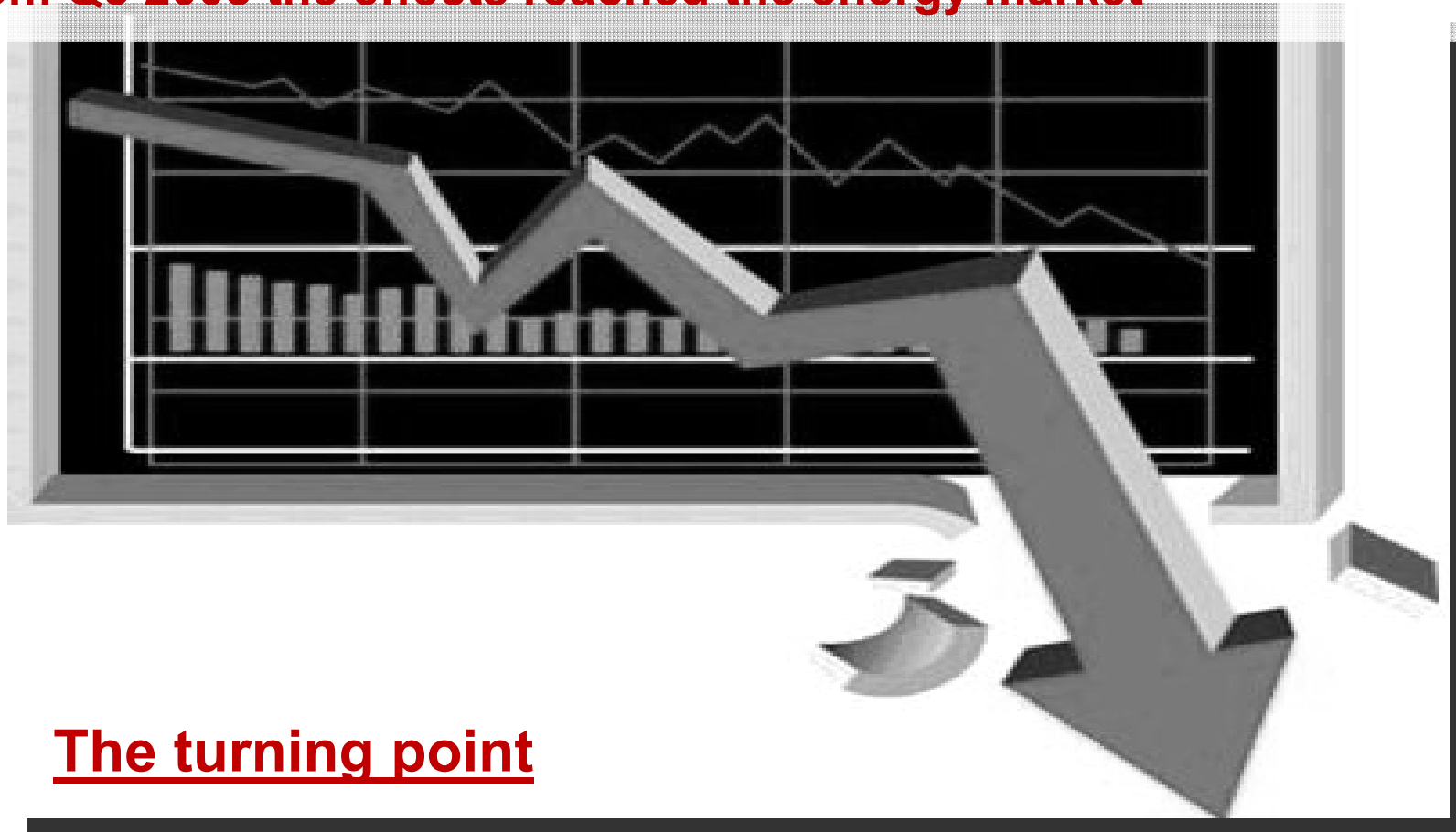
## C Growth of energy prices



### Capacity utilisation (07-08)

	2007	2008
Liquefaction Capacity	190	200
LNG Demand	174	178
Capacity Utilization (percent)	92%	87%

**First signals of economic downturn started at the end of 2007 but from Q3 2008 the effects reached the energy market**

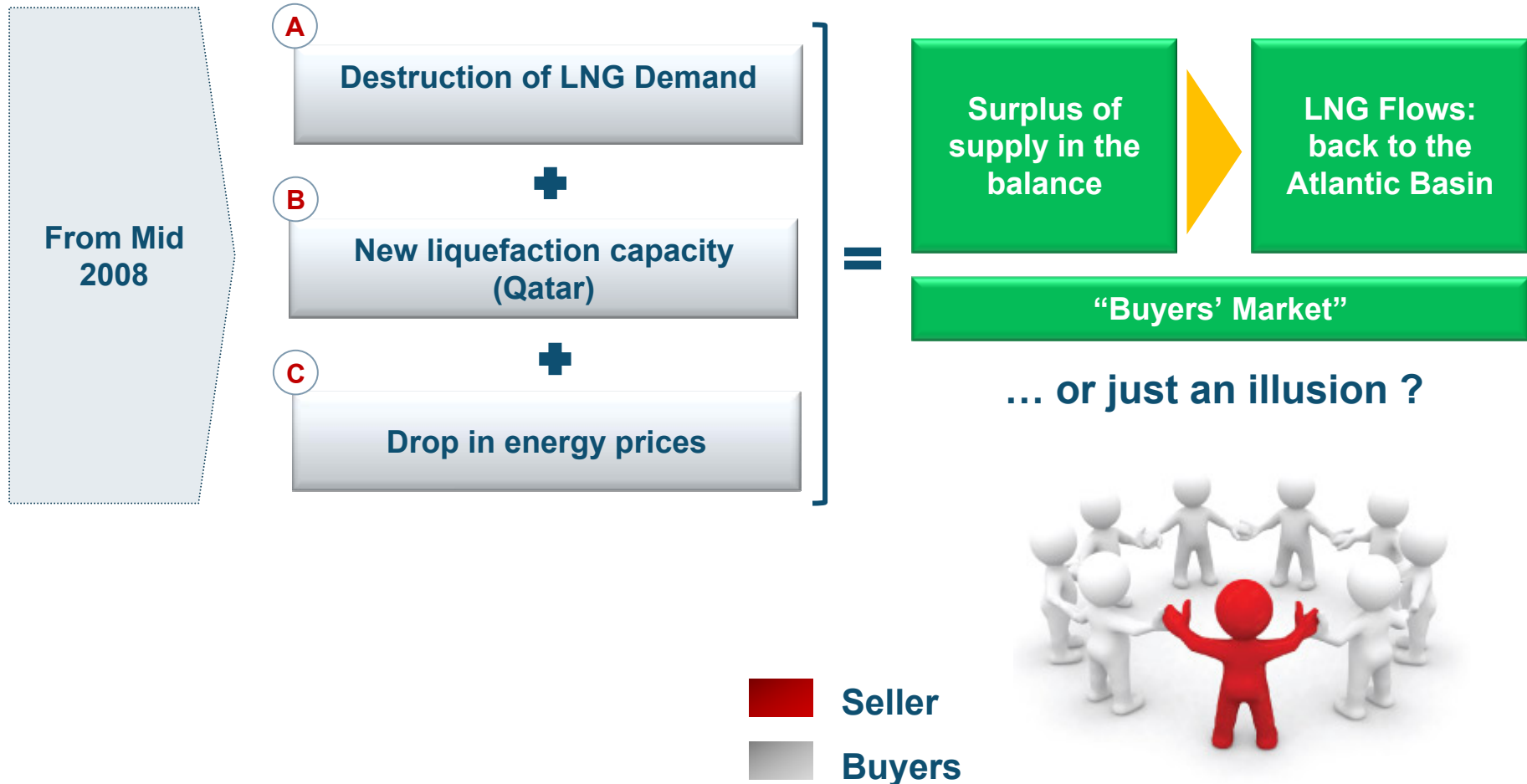


**2**

**The turning point**

# 2 Turning point of the market

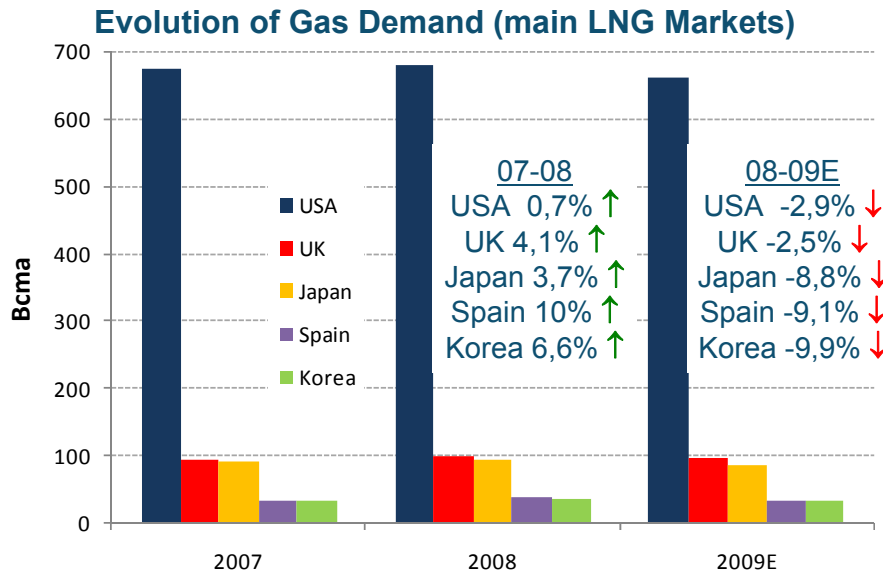
From Q3 2008 till now



# 2 Turning point of the market

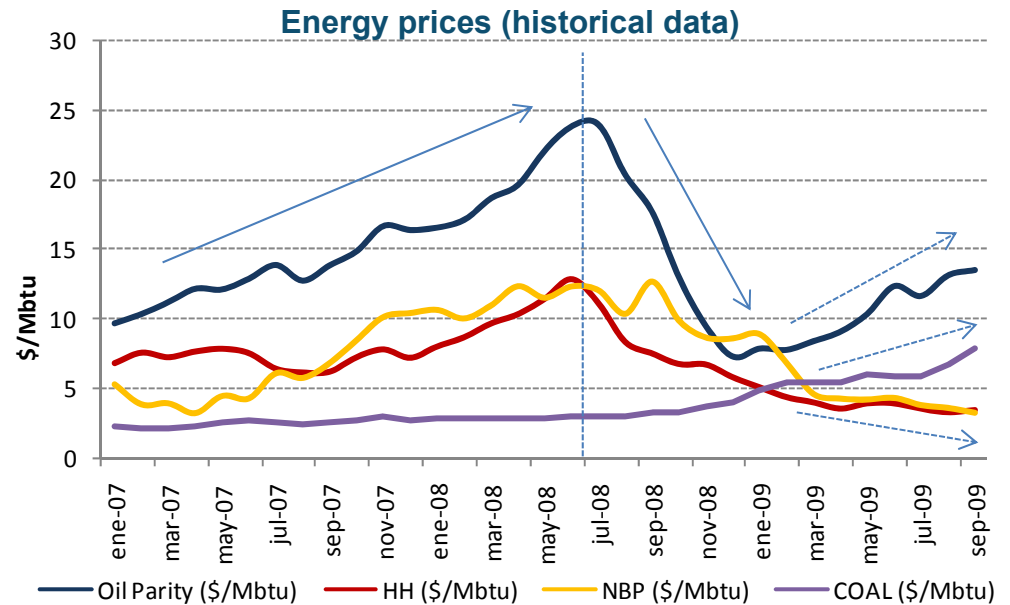
A

## Destruction of Gas Demand



C

## Drop in energy prices



- Gas demand has been reduced as a result of a sharp contraction in the economy, with uncertainty about recovery.
- LNG, because of its inherent flexibility, is finding his way to the last resort markets (EU and USA) to ride out the storm.

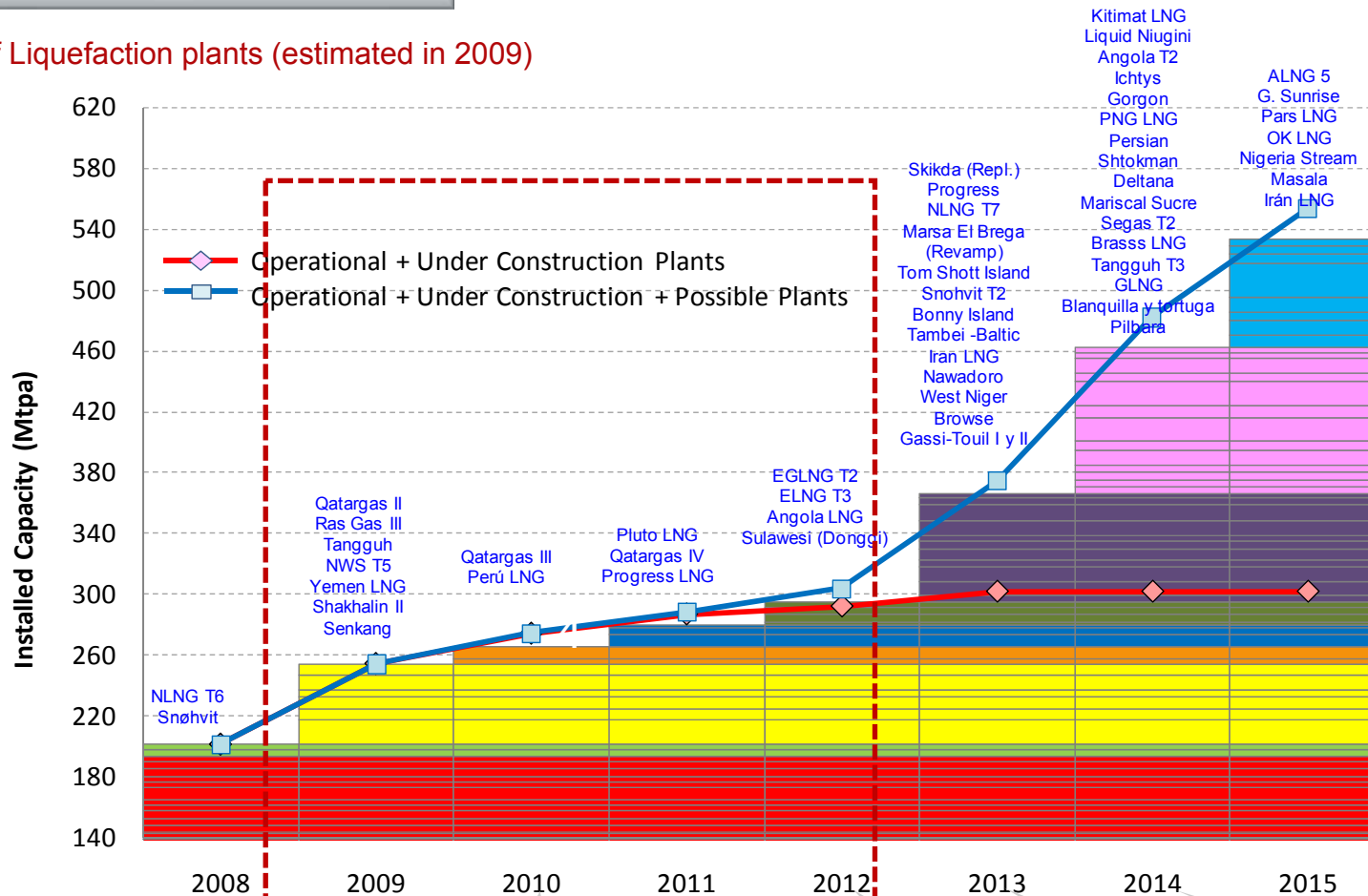
- Since the beginning of the financial crisis, energy prices have dropped dramatically.
- Oil price has experienced a slight recovery after sinking to 2006 levels but gas prices (particularly Henry Hub) have dropped off to 2001 levels.

# 2 Turning point of the market

B

## New liquefaction capacity

Evolution of Liquefaction plants (estimated in 2009)



Production Capacity:

+ 93 Mtpa up to 213,4 Mtpa



+ 11,8

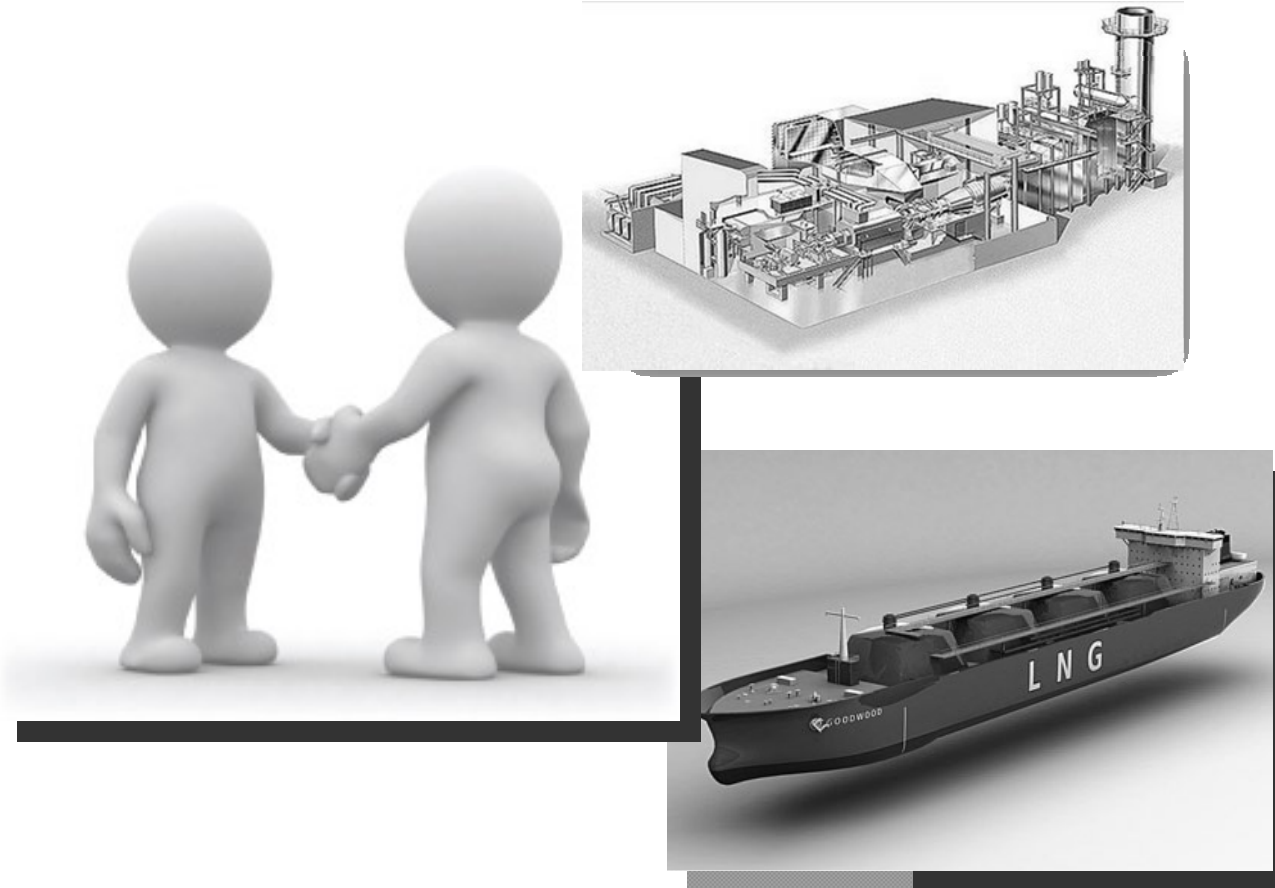
+ 38,5

+ 20,6  
Up to 22

+ 4,3  
Up to 8,2

+ 10,2  
Up to 49

+ 7,5  
Up to 83,9



# 3

## Flexibility as the balancing tool

# 3 Flexibility as the balancing tool

... how to cope  
with this  
uncertain and  
volatile  
scenario??

1<sup>st</sup>

By understanding that managing the energy supply and demand balance is one of the core activities of an utility

Then:

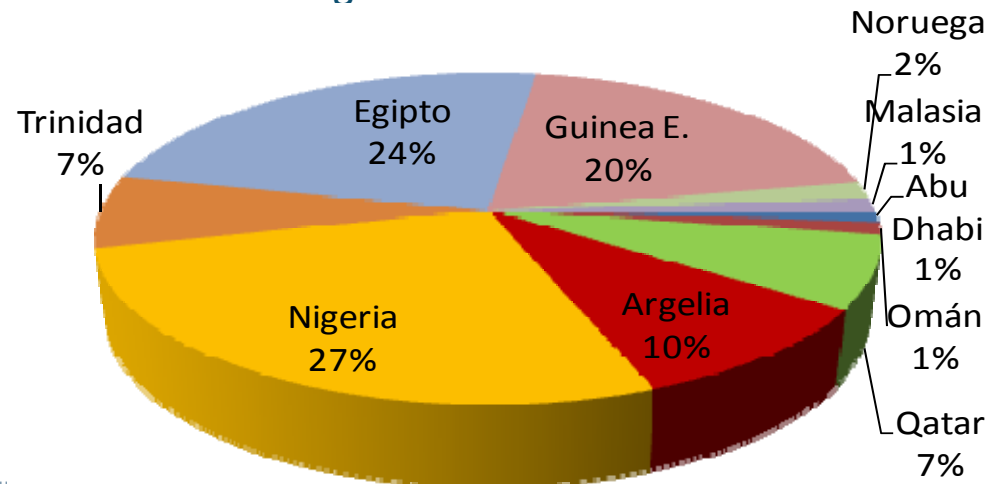
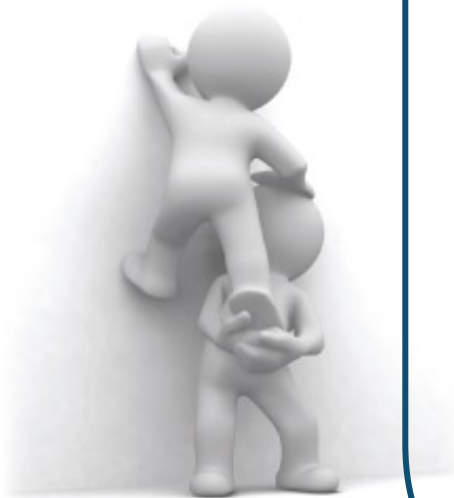
Developing and implementing all the available flexibility tools

# 3 Flexibility as the balancing tool

Flexibility tools on the supply side

- **Access to equity gas:** Own produced gas is likely to have more marketing flexibility
- **Well diversified gas supply portfolio:** Pipeline gas and LNG from different suppliers in different geographical locations
- **Relationship with LNG suppliers:** A good business relationship with the LNG supplier is a key element in order to obtain flexibility.

The understanding between producers and buyers enabled diversions of cargoes originally from nonflexible contracts to the Asian market during 2007 & 2008

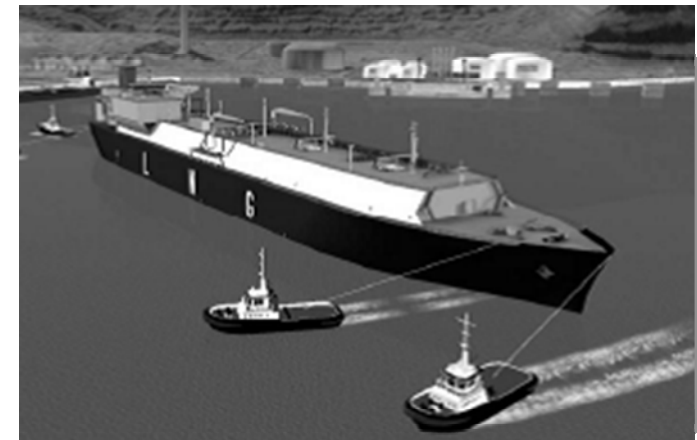


LNG Short-Term Trading by Origin in the Pacific Basin in 2008 (mtpa)

# 3 Flexibility as the balancing tool

Flexibility tools  
on the supply  
side

- **Contractual clauses:** such as FOB purchases, Downward Quantity Tolerance (DQT), Profit Sharing mechanism (to achieve the premium markets)
- A clear written framework where the buyer and seller can feel comfortable is one of the best ways of coping with variables scenarios.
- **Managing an owned fleet:** in order to achieve arbitrage opportunities, it is necessary to have the ability to manage a flexible LNG fleet (having extra shipping availability or being well-positioned in the market to chart a vessel rapidly)



# 3 Flexibility as the balancing tool

Flexibility tools  
on the demand  
side

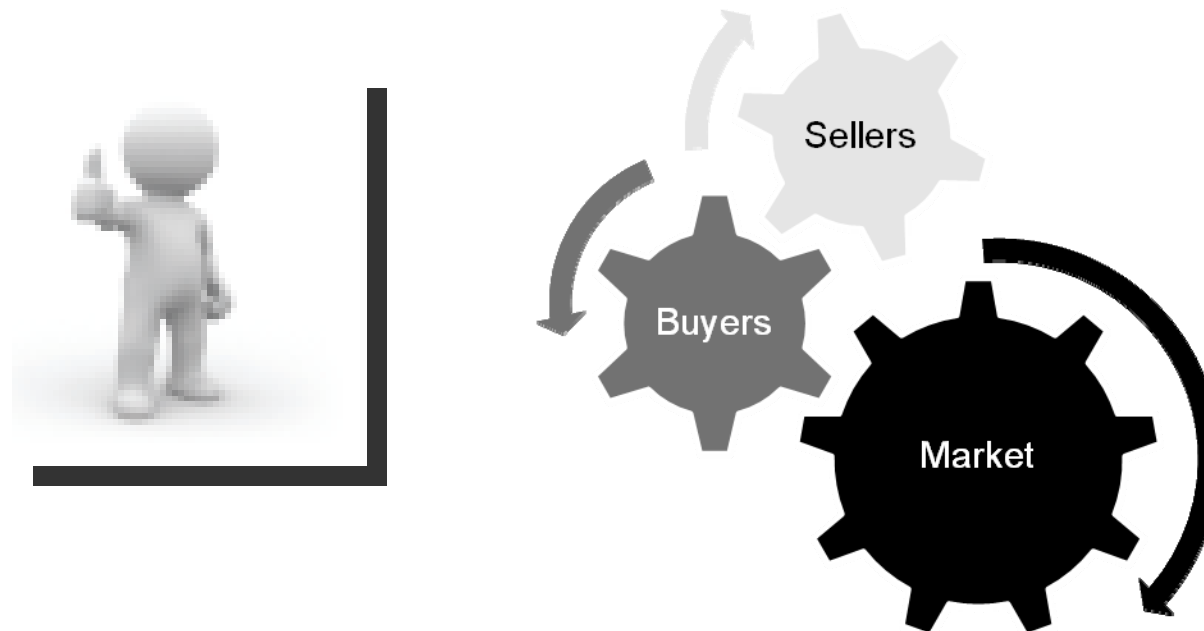
- **Regasification capacity available:** today regasification capacity is not a limiting factor for entering into certain markets:
  - Globally regasification capacity more than doubles (~2,2) the liquefaction capacity and
  - There are new and more flexible solutions, like floating regasification, that enables reducing considerably the time to access a market (i.e. 8 months in Bahía Blanca, Argentina)



# 3 Flexibility as the balancing tool

Flexibility tools  
on the demand  
side

- **A critical mass of diversified client portfolio:** a relevant gas position in a market improves gas portfolio management.
  - **Whole sale gas clients:** such as industrial clients, give stability of a non seasonal demand
  - **Interruptible demand:** enables to cut peak demand in certain periods
  - **Combined Cycle Gas Turbines:** as a valve to increase or decrease gas utilization whenever is needed → a 400 MW CCGT can consume 19 GWh/d of gas
  - **Storage capacity:** underground storage, LNG tanks, Peak Shaving plants, LNG vessels ... help soften seasonality effect
  - **Spot trading activity:** through a well established counterparty network with master sales agreement in place
- **A geographically diversified market position:** by developing gas businesses in other LNG markets



# 4

## Lessons learnt and conclusions

# 4 Lessons learnt and conclusions

- ▶ **No one predicted when the downturn in the economy was going to happen and how much it would affect the energy markets.**  
**Now, it seems that recovery will begin shortly but we don't know how the energy markets will react → What we do know, is that market disturbances will always exist and that we should be prepared with the sufficient tools to manage these situations.**
- ▶ **In any of these situations there are potential benefits to capture and potential losses to avoid.**
- ▶ **It's understandable that either party involved in the LNG trade wants to retain the maximum value of the LNG :**
  - LNG producers want to monetize their resources and investments
  - LNG aggregators, like utilities, have a long term take or pay commitment that gives long term value to LNG and markets to serve
- ▶ **Among all the flexibility mechanisms, the cooperation between buyers and sellers is a key element for the LNG business model that enables price signals to direct the flow of LNG and allows the sharing of the value between all the market players.**

# Thank you

gracias

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mercy

ありがとう

grazie

σας ευχαριστούμε

obrigado

당신을 감사하십시오

danke

ВЫ

dank u

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