

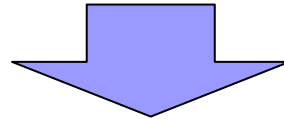


LNG pricing in East Asia - issues and directions

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Prerequisites for expansion of the role of Natural Gas

Rising expectations toward Natural Gas in Japan



Prerequisites

1) Supply Stability

- It has maintained for a period of 43 years since 1969 thanks to the efforts of sellers and buyers

2) Economic merit

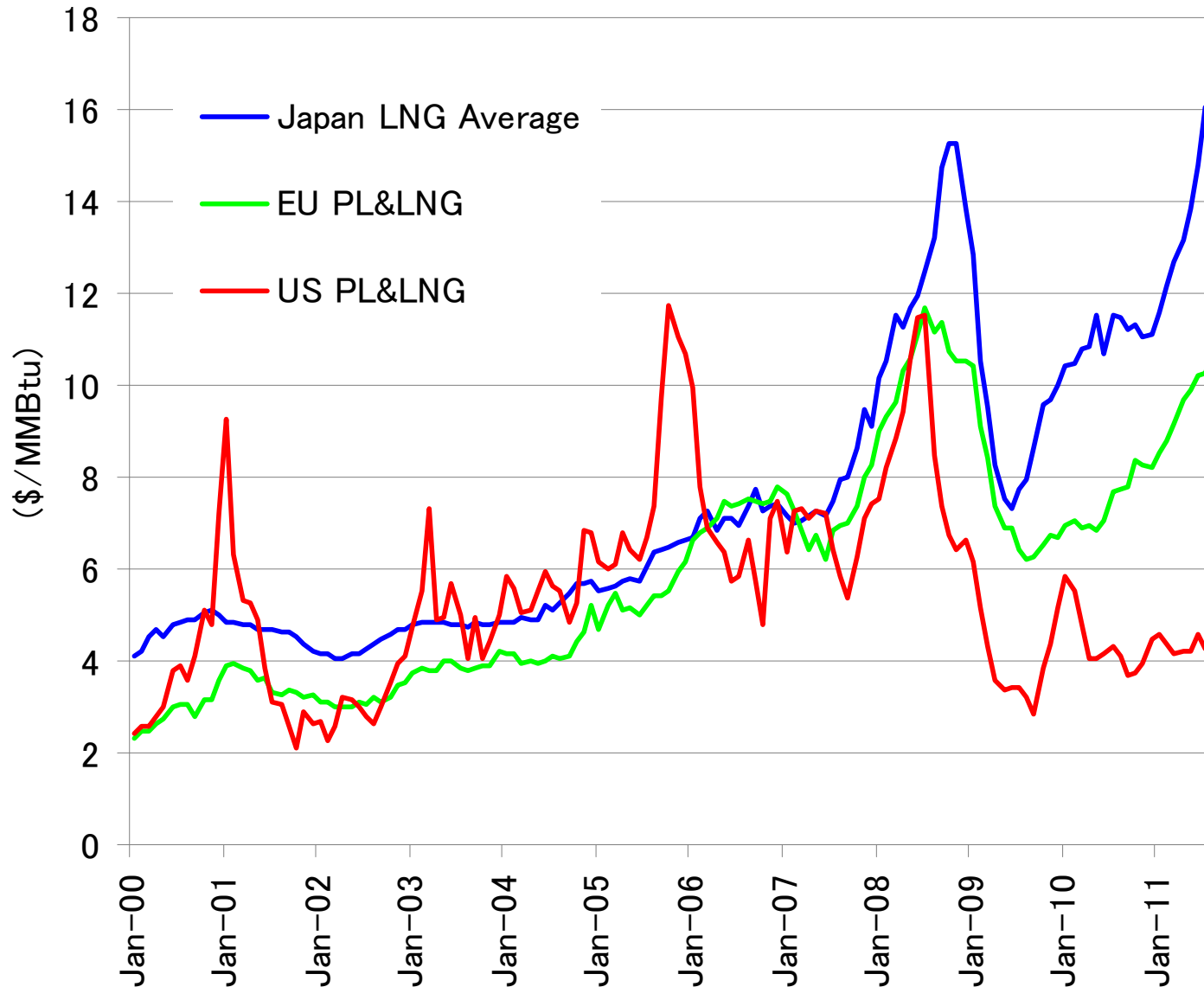
- There are issues to be resolved



LNG tanker, first arrival in port
(Negishi LNG Terminal, 1969)



Interregional gaps of LNG/ Natural Gas prices



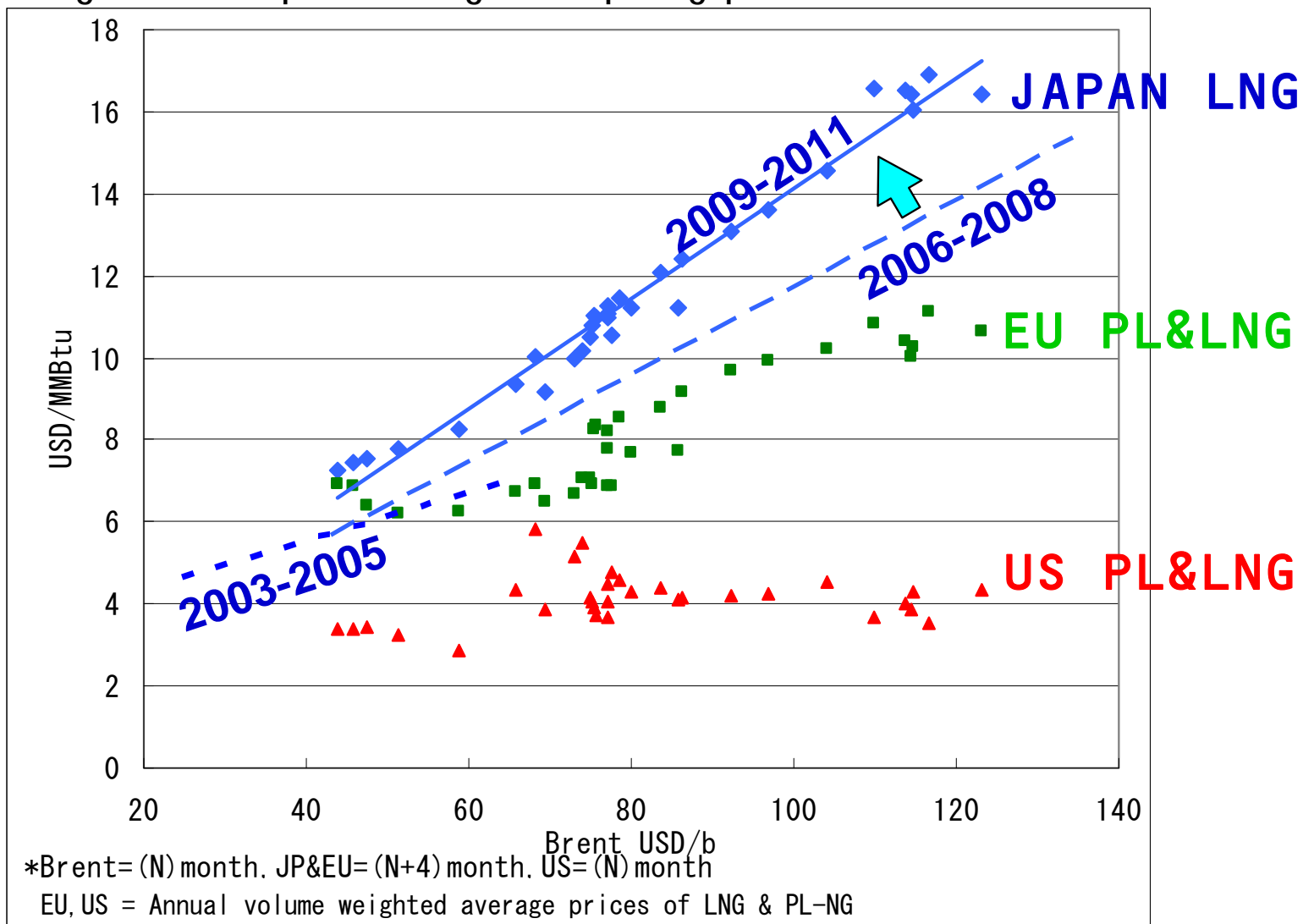
Prices about 1.5 to 4 times as high as in EU and US

* EU, US = Annual volume weighted average prices of LNG & PL-NG
 Source : IEA Natural Gas Information 2012, Trade Statistics of Japan



Brent vs Natural Gas Import price (2009-2011)

- LNG without "S" curve → increased crude oil price sensitivity of LNG prices
- Higher remaining of crude oil prices → significant price gap with EU or US



Source : IEA Natural Gas Information, Trade Statistics of Japan

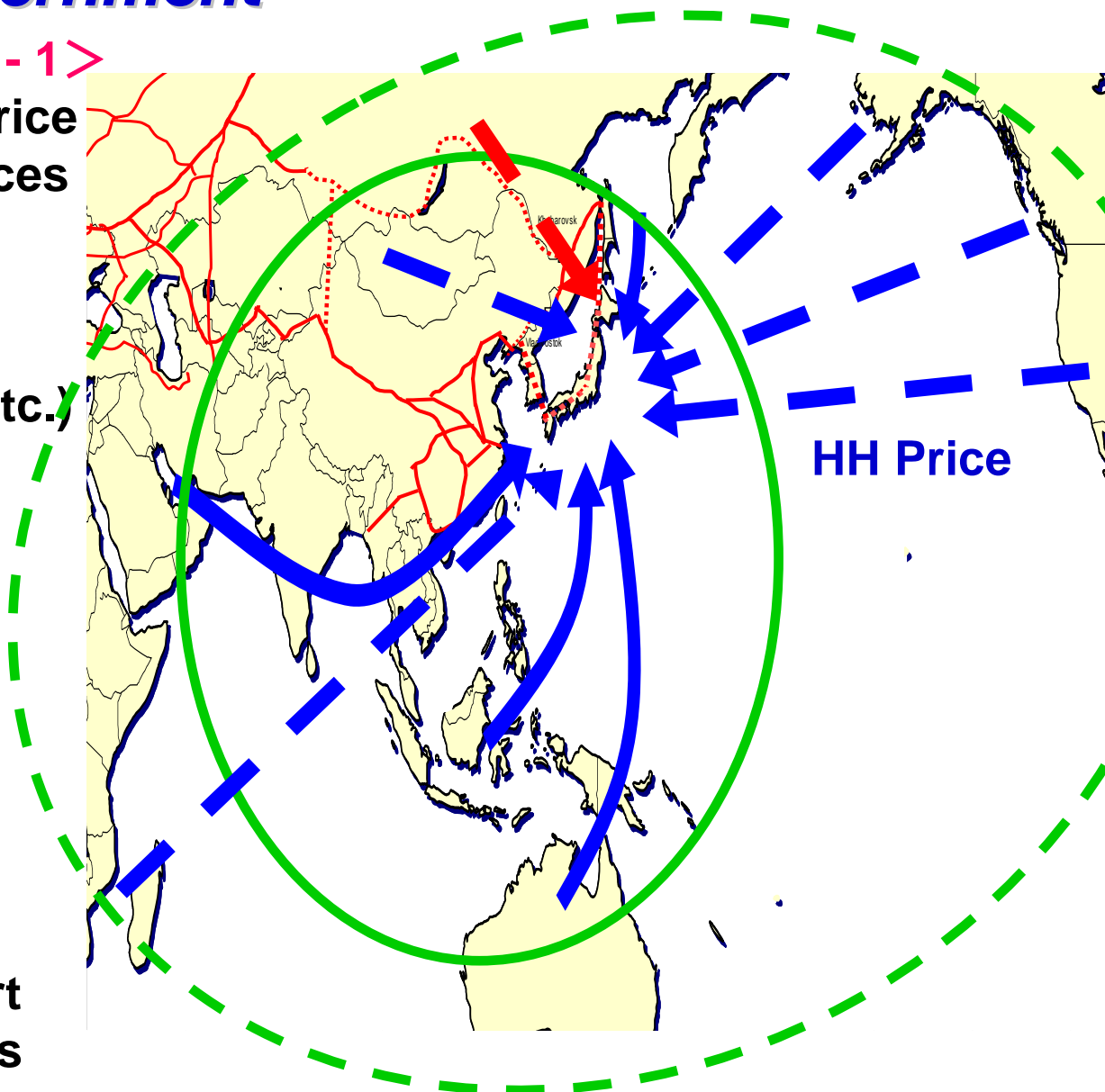
Toward development of the LNG industry: Buyers and Government

< Approaches by Buyers - 1 >

- To reduce crude oil price sensitivity of LNG prices
- Diversification of
 - 1) price indices (HH etc.)
 - 2) LNG sources
 - 3) transportation (LNG or PL)
- Active acquisition of upstream interests

< Expectations for Government >

- Governmental support for Buyers approaches



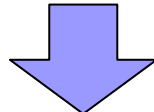
Toward development of the LNG industry: Buyers and Sellers

< Approaches by Buyers - 2 >

- **To develop the LNG industry as the utility dealing directly with end customers in the LNG value chain**
 - **Promotion of the development and spread of gas utilization technologies such as fuel cells and cogeneration systems**
 - **Development of gas infrastructure**

< Expectations for Sellers >

- **To resolve East Asian LNG price issues**



**Have the common goal of the LNG industry growth
for Buyers and Sellers !**



"ENE-FARM", fuel cell system for residential use

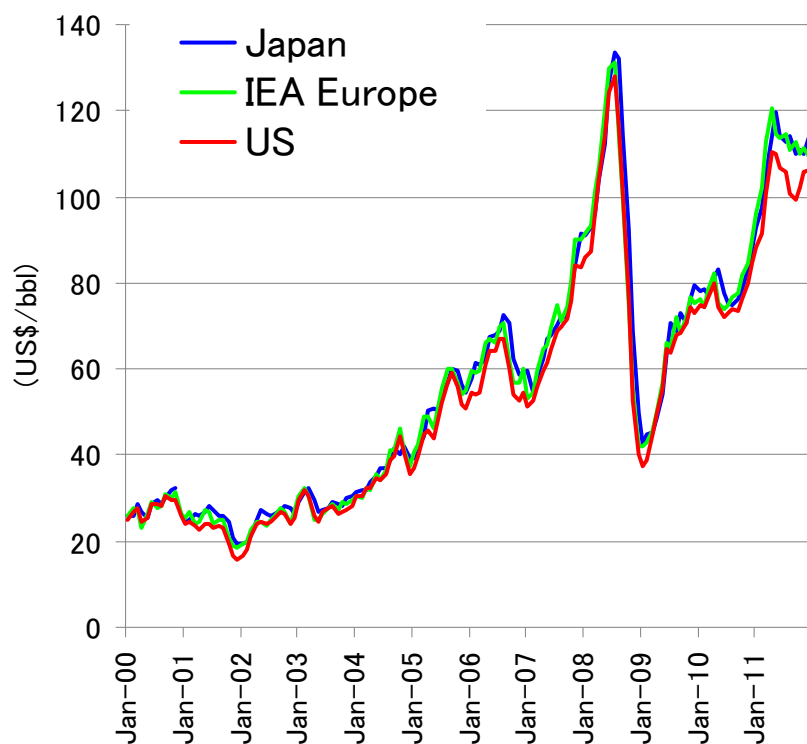
Thank you!

*Wishing you the best for the
prospective future!!*

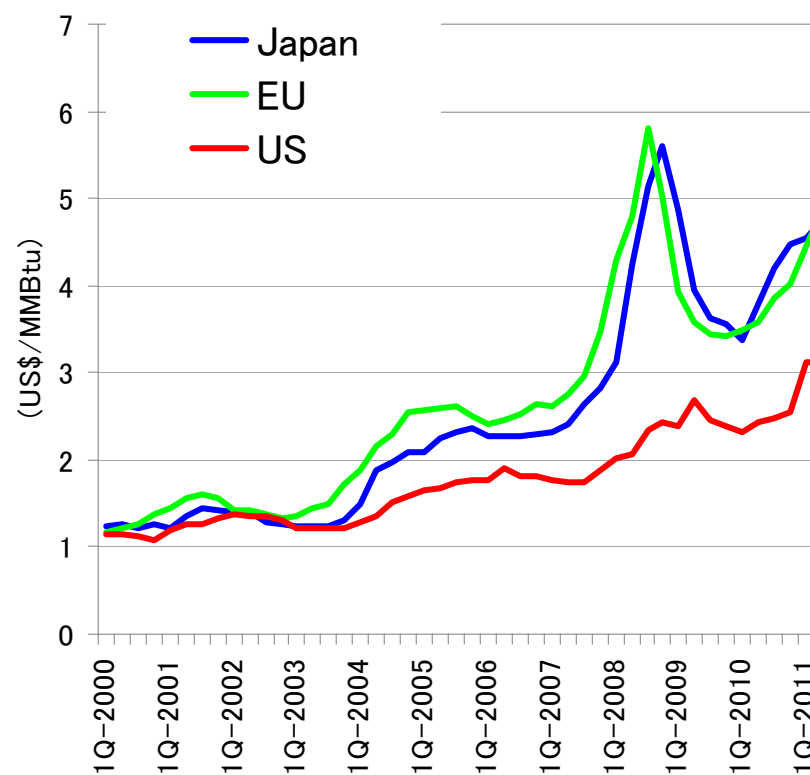


Import price of Crude oil & Coal

<Import price of Crude oil>



<Import price of Coal>



*US is Net-exporter