

# Natural Gas: Prices, Transparency and JODI-Gas



*Kamran Niki Oskoui  
Gas Market Expert  
Ministry of Petroleum, Iran*



# The importance of transparency in natural gas market

- The global share of natural gas is expected to grow from 21% of global energy mix in 2012, to 24% in 2040.(WEO, 2014)
- Increasing globalization of the natural gas market by expanded LNG trade highlights a growing need for more market information on natural gas.
- Improving the availability, quality and timeliness of gas market data will contribute to reducing uncertainties, improving predictability and facilitating project planning.



# Fundamental differences of gas market with oil market

## Crude Oil Market

- Global market
- High liquidity
- Developed financial market
- Near-Competitive

## Natural Gas Market

- Regional market
- Low liquidity
- Capital intensive infrastructure
- Different Pricing Mechanisms

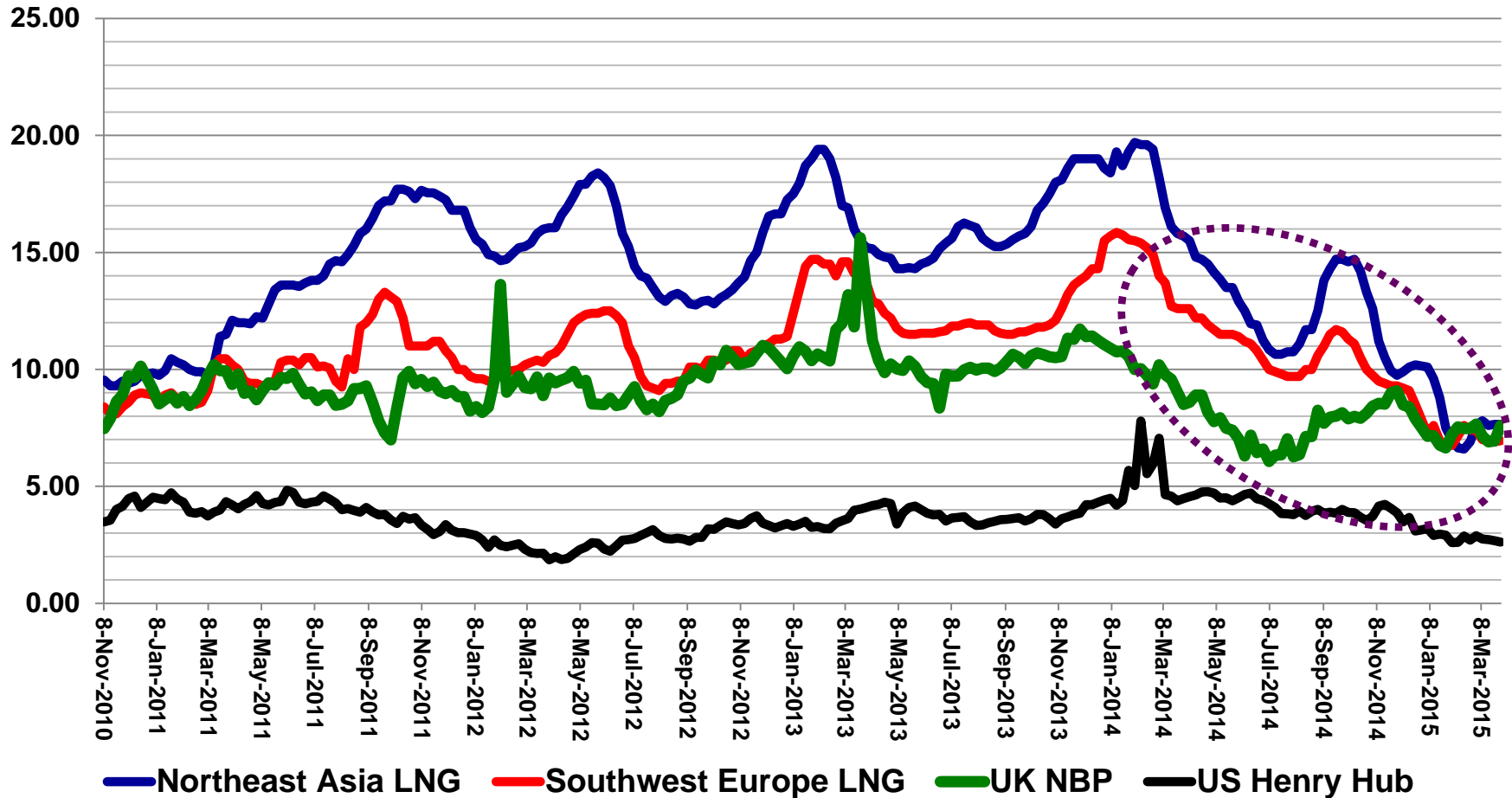


# International gas market structure

- **North America:** More liberalized and highly liquid; The churn ratio (ratio between traded volumes and physically delivered volumes) is about 100; geographically isolated; gas-to-gas pricing mechanism; Large capacity of gas storages; Spot Markets: Henry Hub, New York, Chicago and California; Natural gas Futures are traded in NYMEX; Shale Gas Revolution (after 2009) and oversupply of gas; Potential to become LNG exporter
- **UK NBP:** liberalized, fairly liquid, the churn ratio is about 15; Natural Gas Futures are traded in ICE: arbitrage between the spot gas traded on NBP and Continental Europe long term contracts
- **Continental Europe:** Less Liquidity; Churn index is about 3; Gas contracts largely indexed to oil products, some Hubs has been established in recent year: Belgium Zeebrugge, TTF Netherland and NGC Germany
- **Asia:** no “onshore” trading hub, gas priced largely based on state-regulated levels or long term oil linked contract for regional pipeline and LNG, with some spot LNG cargo purchases in recent years.



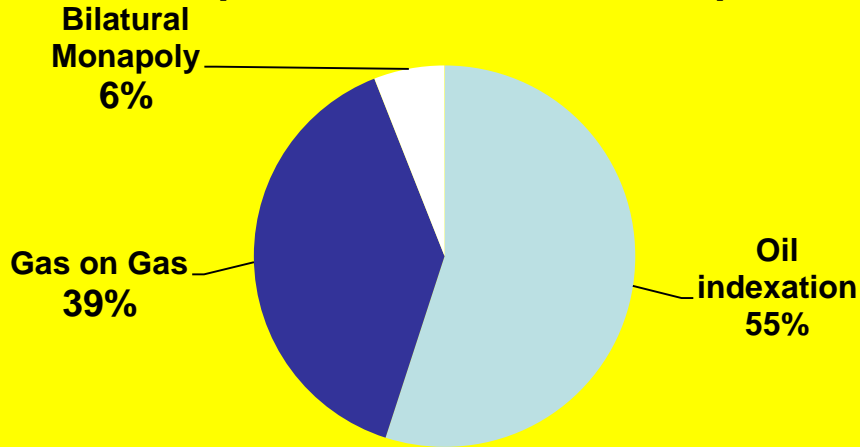
# Behavior of prices in regional natural gas markets





# The share of different pricing mechanism in gas markets

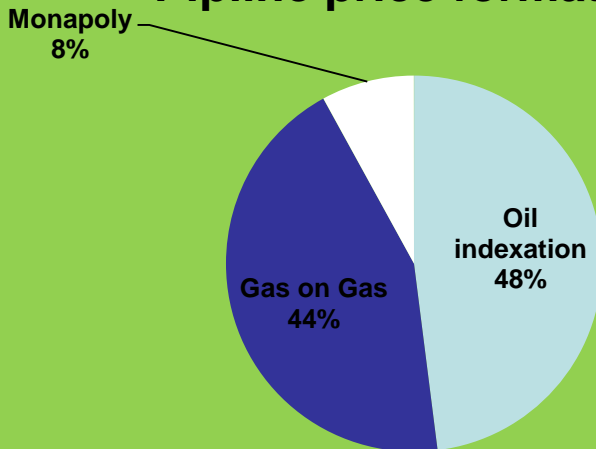
**world price formation- Total Import**



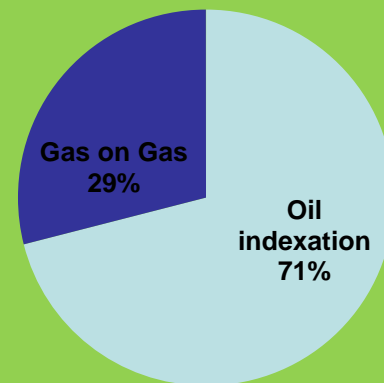
•In most of the long term contracts price of natural gas is confidential.

•Excluding HH and NBP, price in other hubs are not available for public.

**Pipeline price formation**



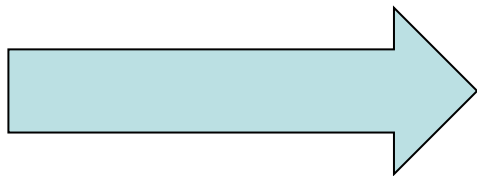
**LNG price formation**





## The reasons of low level of transparency in natural gas prices

- Regional Market
- Different pricing mechanism
- limited transportation capacity
- Asymmetric information and Incomplete market
- Spillover effects of crude oil market on gas price



**Requisite for inclusion of natural gas prices**



## Concluding Remarks

- The importance of transparency in gas market is more than crude oil market
- Unlike crude oil market, an appropriate level of transparency in natural gas market cannot be achieved without taking natural gas prices into account.
- Conducting a mechanism to provide credible prices for natural gas in regional and global level is necessary to improve transparency in gas market.





Thanks for your kind attention