



Opportunities & Trends in LNG Trading and Turkey

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About PETFORM



Established in 2000, PETFORM has played a crucial role in the transfer of private sector views to the public authorities regarding to Turkish energy legislation amendments. Member companies mainly have activities in 2 sectors:

- **Exploration & Production Sector**
- **Natural Gas Market**

Member Companies



- AKENERJİ
- AKMERCAN ENERJİ
- AKFEL
- AKSA
- ALPIQ
- ALADDIN MIDDLE EAST
- ANGORAGAZ
- ATILA DOGAN
- AVRASYA GAZ
- AYGAZ DG
- BATI HATTI GAZ
- BORDRILL
- BOSPHORUSGAZ
- BP
- CENGİZ ENERJİ
- CHEVRON
- ÇALIK ENERJİ
- DEMİRÖREN EGL
- DOĞAL ENERJİ
- EDISON
- EGEGAZ
- ENERCO ENERJİ
- ENERJİSA
- ENERYA
- ENGIE
- ETKİ LIMAN
- ERDGAZ
- EWE ENERJİ
- EXXONMOBİL
- GENEL ENERGY
- GLOBAL MADEN
- GÜNEY YILDIZI PETROL
- HATUŞA ENERJİ
- IBS RESEARCH
- KİBAR ENERJİ
- LİMAK ENERJİ
- MARSA ENERGY
- MET ENERJİ
- NATURGAZ
- NATURELGAZ
- OMV
- PALMET ENERJİ
- PERENCO
- POZITIF
- RWE
- SHELL ENERJİ
- SHELL UPSTREAM
- SISECAM ENERJİ
- SOCAR
- TBS PETROL
- TEKFEN
- THRACE BASIN
- TOTAL
- TORUNLAR ENERJİ
- TRANSATLANTIC PETROLEUM
- TURCAS
- VALEURA ENERGY
- VOLT ENERJİ
- ZORLU ENERJİ

Key Trends in Gas Trading



- Gas is ample,
- COP 21 & penetration of renewables and efficiency,
- No LNG surge in Europe, global LNG supply increase absorbed by Asian and Middle Eastern Markets,
- Increasing liquification and gasification capacity,
- Stagnant demand, relative increase in European gas demand due to colder weather, UK coal to gas switching in 2016,
- Prices remain low which makes difficult FID in new LNG projects,
- Increasing spot trading and gas on gas competition; %35 global LNG trade and %70 European gas trade
- Upcoming LNG glut and tightening competition,
- Uncertainties in supply & demand and pricing trends,

LNG Trade in 2016

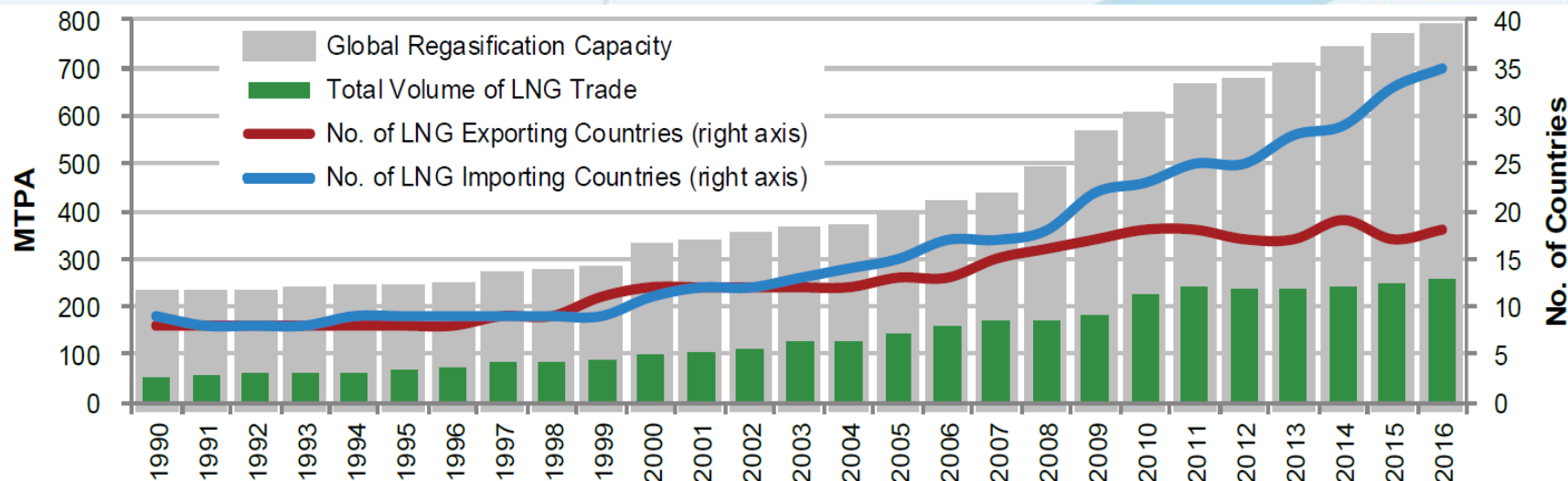


Figure 3.7. LNG Imports and Market Share by Country (in MTPA)

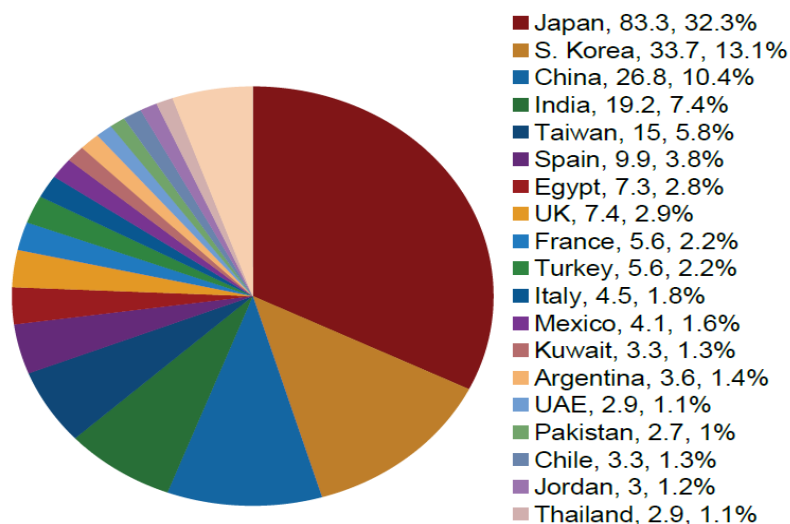
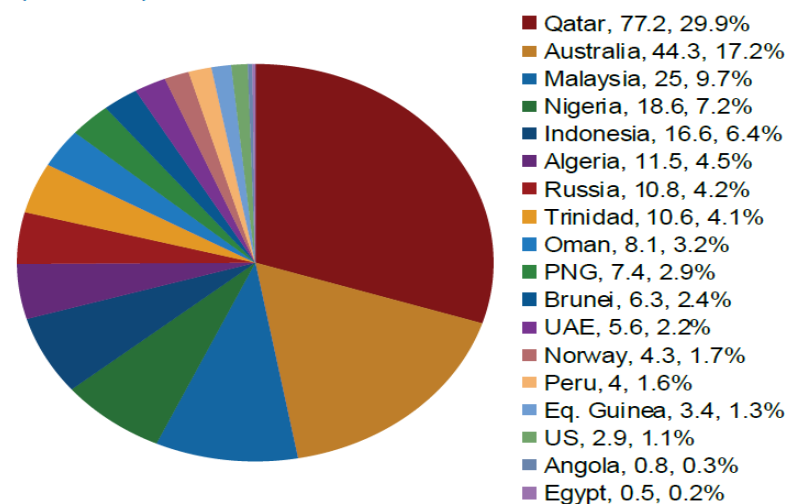


Figure 3.2: LNG Exports and Market Share by Country (in MTPA)

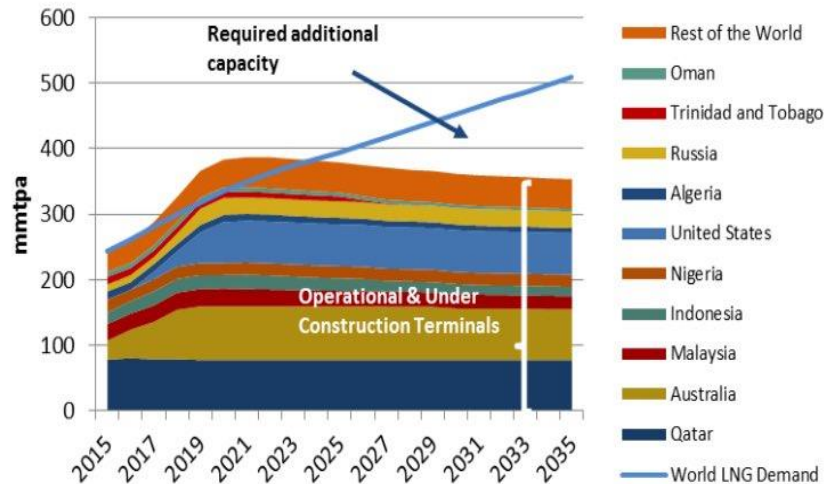


Source: IGU

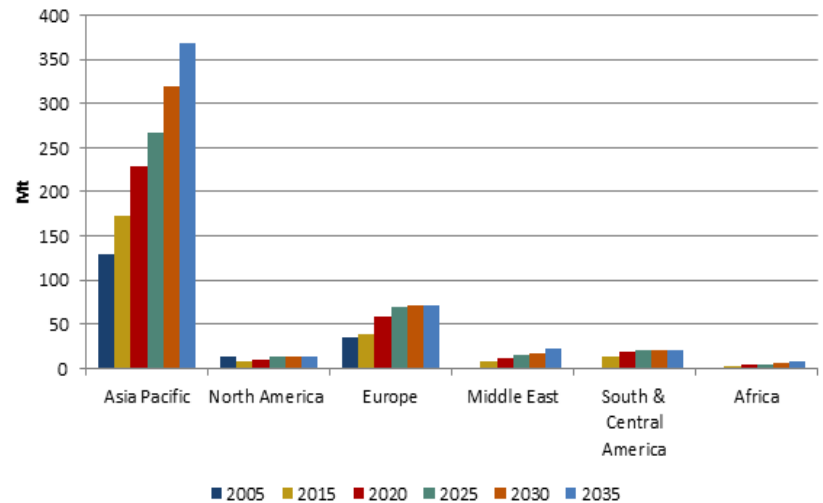
Future Supply & Demand Balance



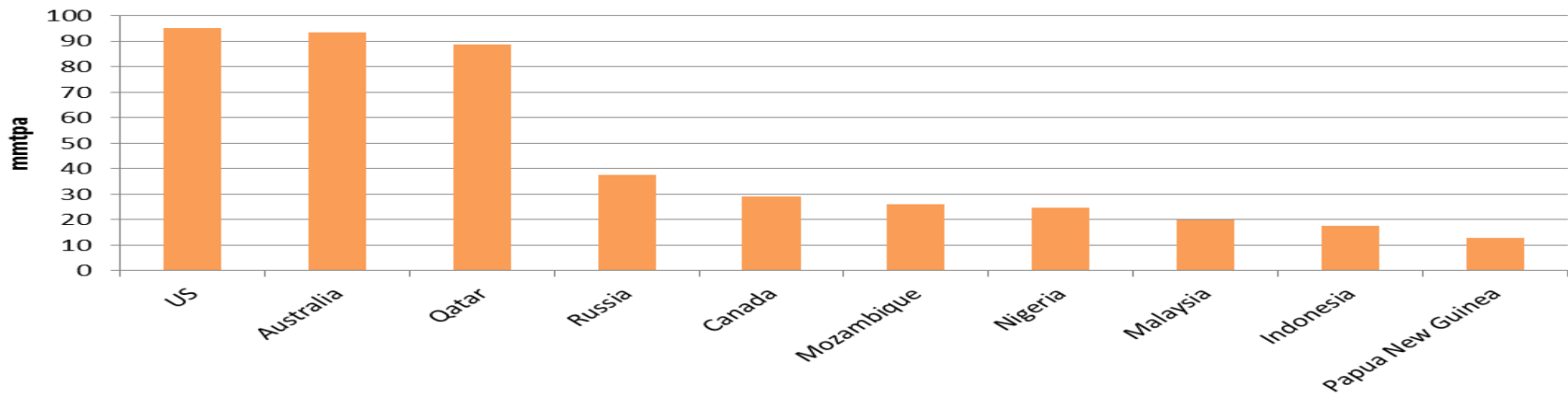
Effective Liquefaction Capacity vs. LNG Demand



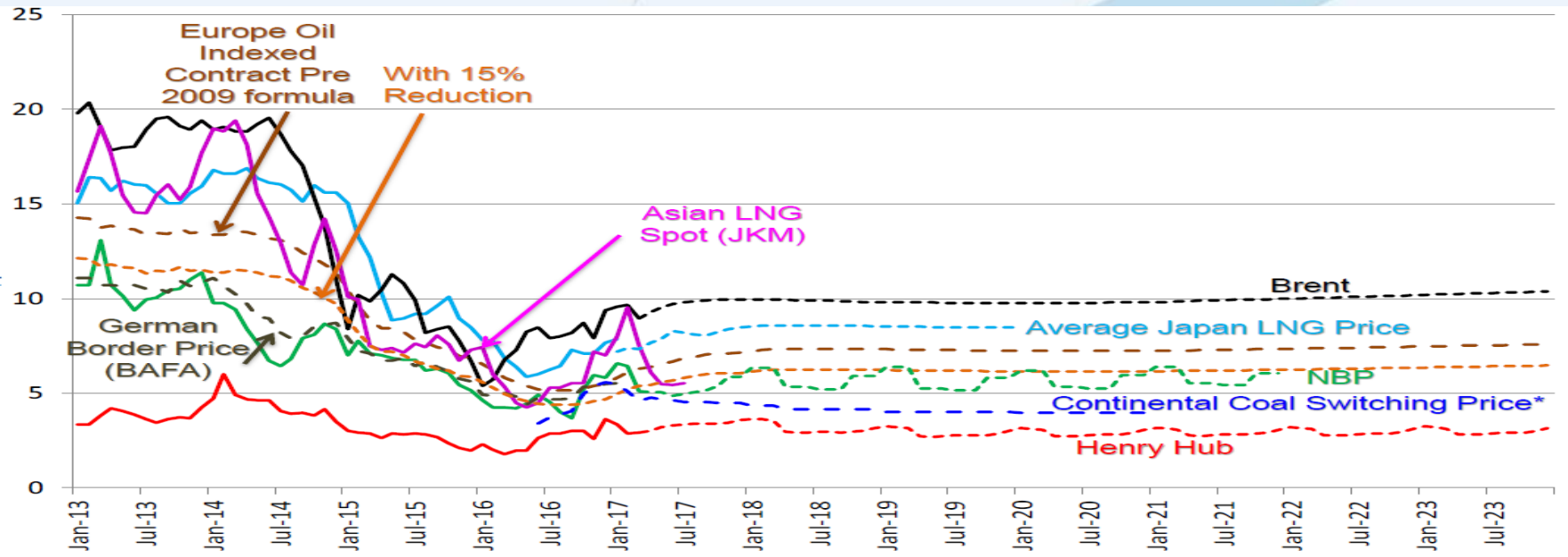
LNG Imports by Region



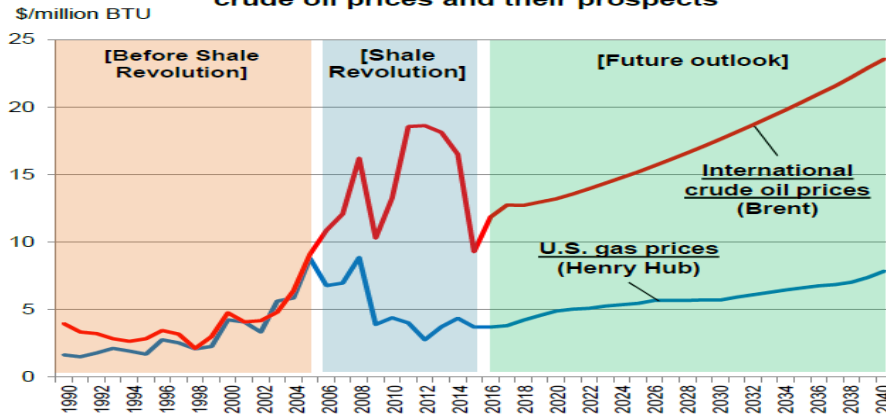
2035 Top 10 LNG Producers



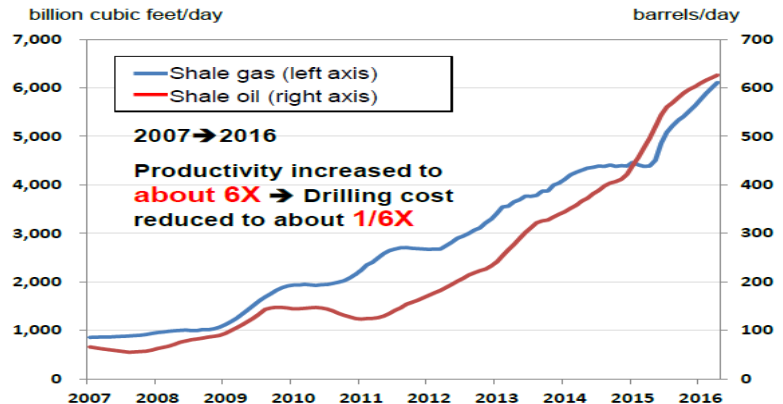
Pricing Dynamics



Changes in U.S. gas prices and international crude oil prices and their prospects



Changes in productivity of U.S. oil and gas (Crude oil and gas output per rig)



Future Determinants

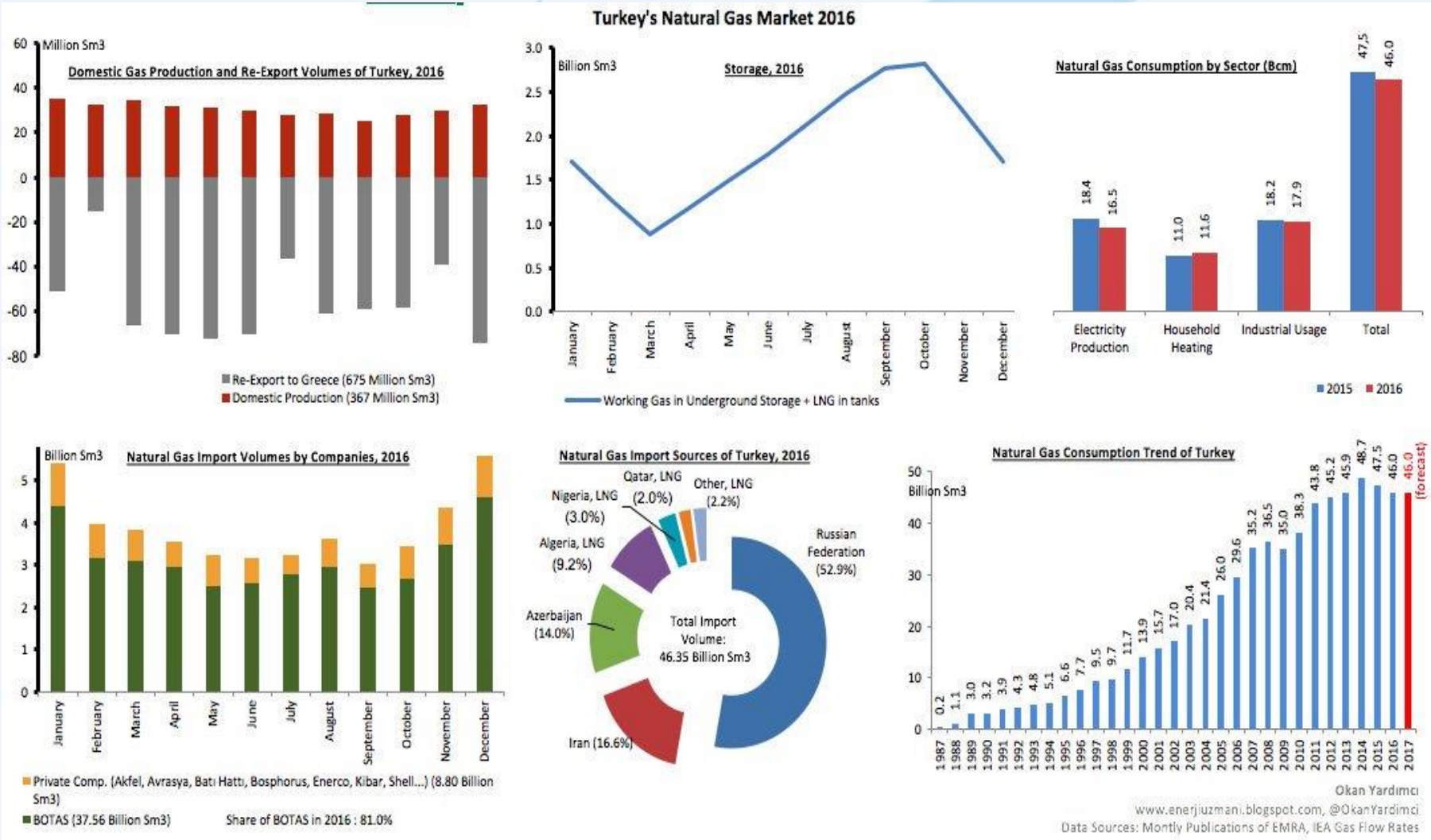


- **Deregulation in Japan and future of nuclear policy (including S. Korea)**
- **Upstream investments in the US**
- **Upstream investments in China**
- **Future demand of India**
- **Competition in EU market**
- **New investments in Qatar and US**
- **Don't forget Egypt**

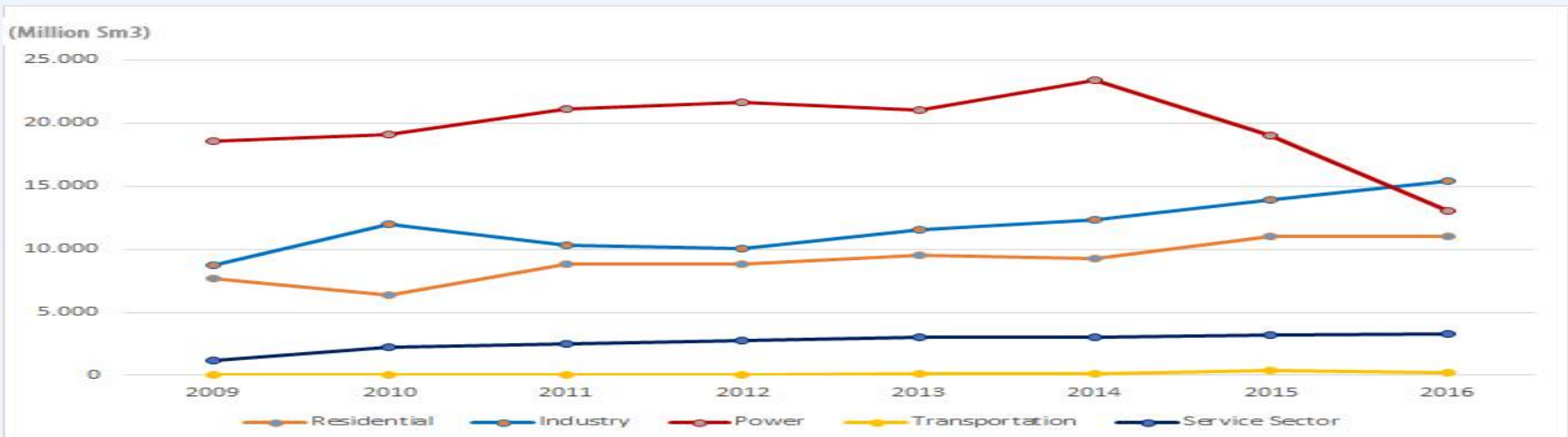
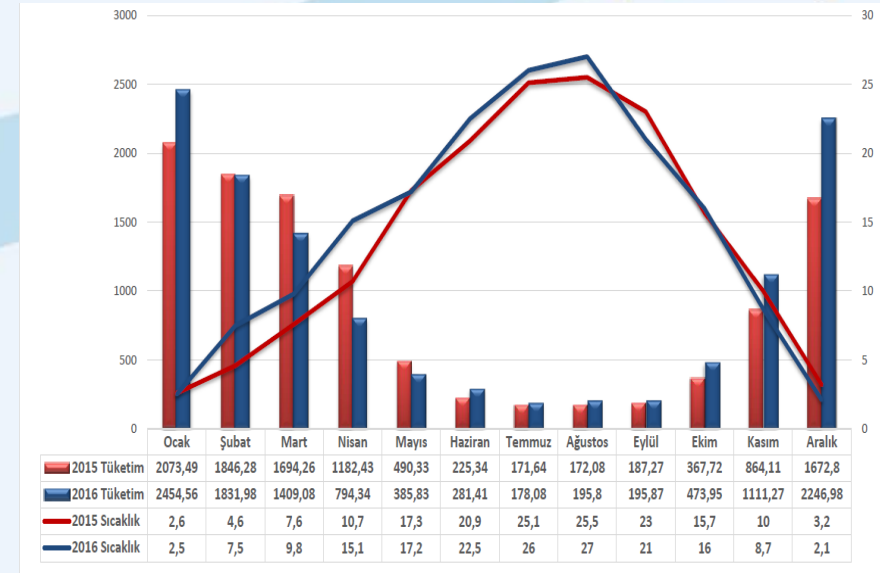
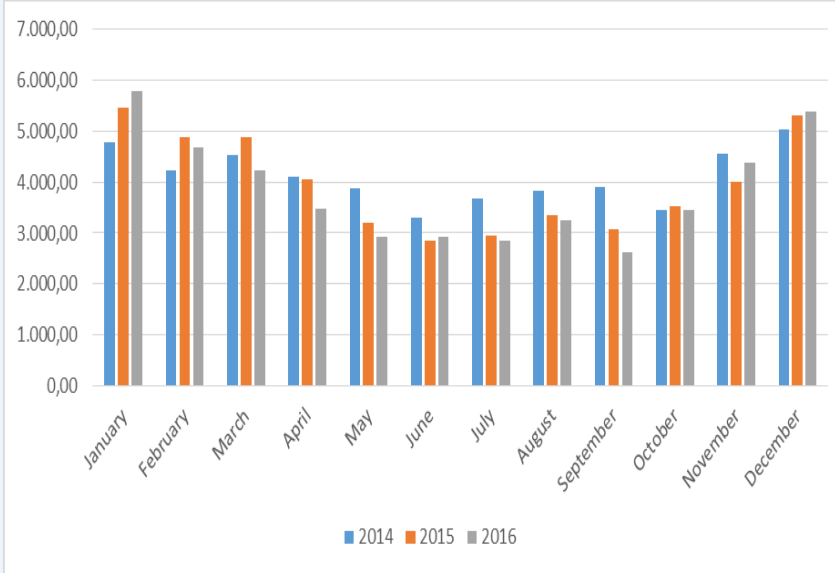


and Turkey...

Turkish Natural Gas Market in 2016



Gas Demand Dynamics of Turkey

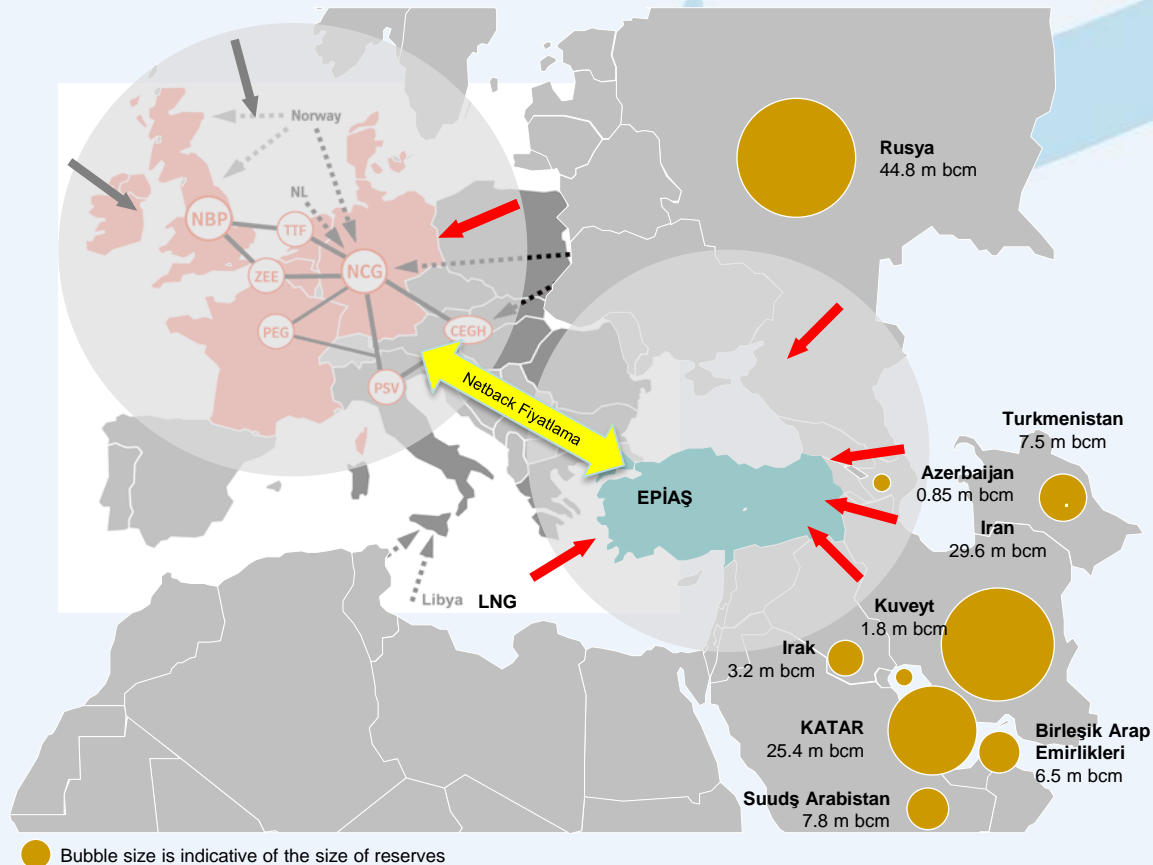


Gas Import Agreements



Contract	Date of Signature	Date of Operation	Duration (Years)	Volume (Plateau bcma)	Date of Expiration
Algeria (LNG)	Apr 1988	Aug 1994	20	4	2024 (extended)
Nigeria (LNG)	Nov 1995	Nov 1999	22	1.2	2021
Iran	Aug 1996	Dec 2001	25	10	2026
Russia (B.Stream)	Dec 1997	Feb 2003	25	16	2028
Russia (West)	Feb 1998	Mar 1998	23	4	2021
Azerbaijan	Mar 2001	Jul 2007	15	6.6	2022

Integration of Turkey with European Hubs



- 8 Major European Trading Hub
- Trading on OTC's via Brokers
- Trading on Energy Exchanges

When Turkey will be completed necessary structural reforms, Turkish natural gas market will be integrated with European trading hubs and generate reference price for natural gas trade in the region.



THANK YOU...