



**ГАЗПРОМБАНК**

«Газпромбанк» (Открытое акционерное общество)

# Transformation of energy and financial markets

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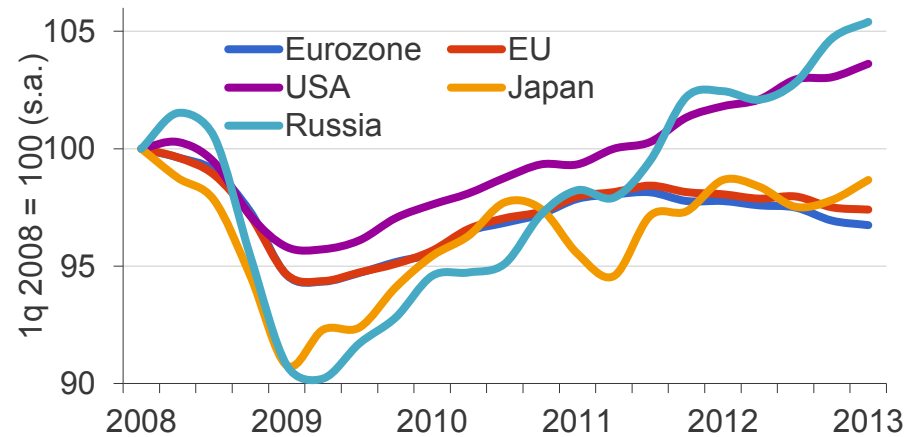
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## Global economy outlook

- Global economic outlook is rather bleak. Financial conditions improved greatly since mid-2012 but the road to recovery is still bumpy.
- IMF forecasts that global output will grow 3.3% in 2013 vs 3.2% in 2012 and 4.0% in 2011.
- There is growing misalignment between advanced economies especially US vs EU.
- Eurozone economy is in depression since 2H2011. Financial stress moderated since 2H2012 in response to policy actions on European and national levels. But a path to sustainable growth is still in the future.
- 1Q2013 GDP figures for EU disappointed on the downside. Only Germany of Eurozone countries managed to grow last quarter (+0.1% q/q sa).

GDP Index of some major advanced countries and Russia, 1q2008 – 1q2013



Recent IMF Global Forecasts, 2010-2014 (as of April 2013)

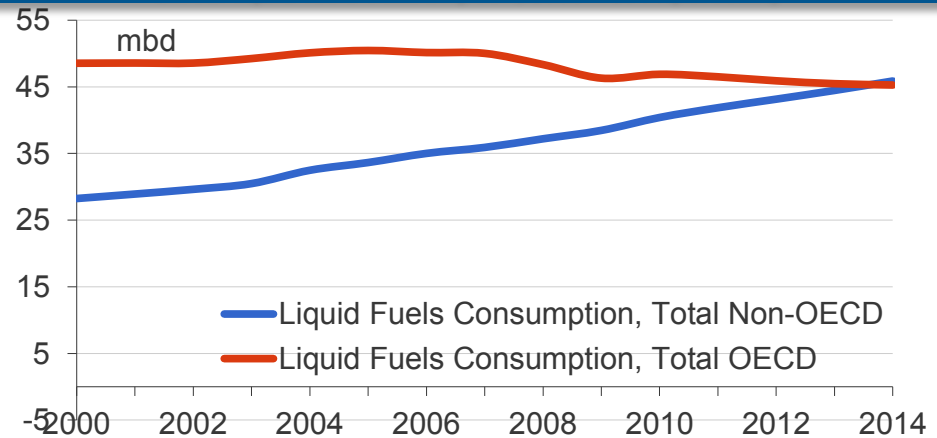
	2010	2011	2012	2013	2014
<b>World</b>	<b>5.2</b>	<b>4.0</b>	<b>3.2</b>	<b>3.3</b>	<b>4.0</b>
Advanced countries	3.0	1.6	1.2	1.2	2.2
Euro area	2.0	1.4	-0.6	-0.3	1.1
European Union	2.0	1.6	-0.2	0.0	1.3
Emerging market and developing economies	7.6	6.4	5.1	5.3	5.7
China	10.4	9.3	7.8	8.0	8.2
Russia	4.5	4.3	3.4	3.4	3.8



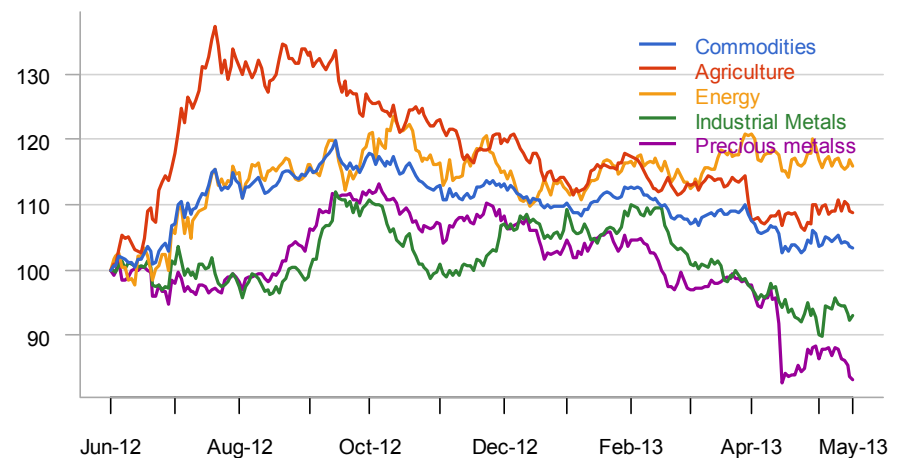
## Global energy trends in 2013

- Despite overall commodity price weakness in 2013, energy prices stay rather resilient early this year.
- A major reason for stable energy prices despite volatile economic environment is strong consumption growth in emerging markets and persistent geopolitical risk premiums on oil market.
- According to recent IEA forecasts, non-OECD countries will outpace OECD in volumes of liquid fuels consumption in 2013.
- Rebalancing of economic models towards domestic consumption in emerging economies (especially in China) means strong demand for energy in various forms.
- While surging energy prices are rather unlikely there is a strong ceiling around \$90-100 /barrel supported by OPEC policies and producer interests combines.

Global liquid fuels consumption, 2000 – 2014 (forecast)



Commodity price movement in the last 12 months

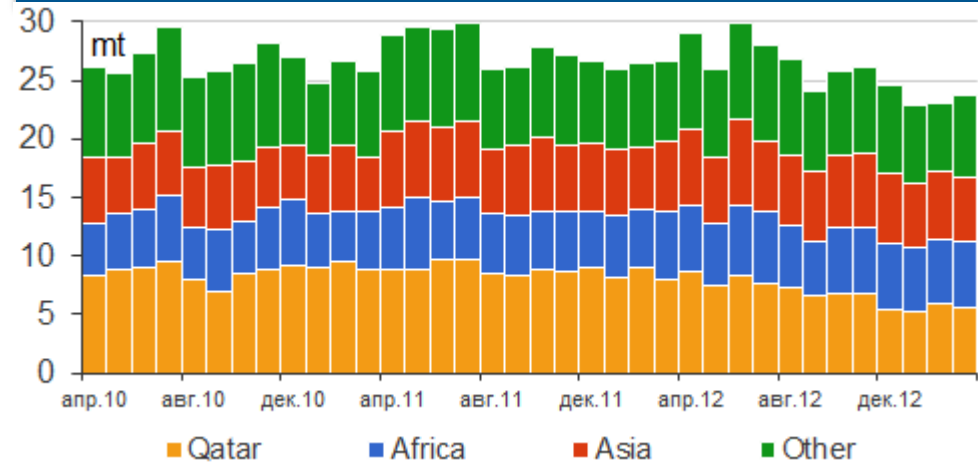




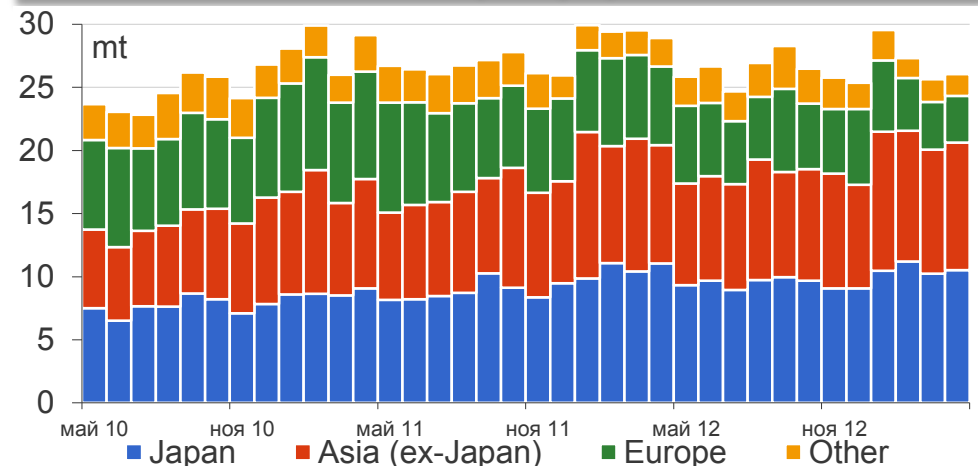
## Global LNG market

- Strong demand in Asia and Latin America keeps LNG markets tight in 2013.
- Supply growth is lackluster with a number of existing liquefaction plants experiencing declines in output and only two new facilities starting operations in 2013 – Skikda (Algeria) and Luanda (Angola).
- European markets balance global LNG market by redirecting shipments to higher-priced destinations.
- Japan stays heavily reliant on imported LNG supplies. Japan imported more than 36% (118 out of 327 mt) of global LNG exports in 2012. Potential restarts of nuclear power plants pose risks to Japanese LNG consumption but are unlikely in current environment.
- US will start LNG exports in 2015 with major part of supplies aimed at premium Asian markets.

Global LNG exports by exporter (Apr 2010 – March 2013)



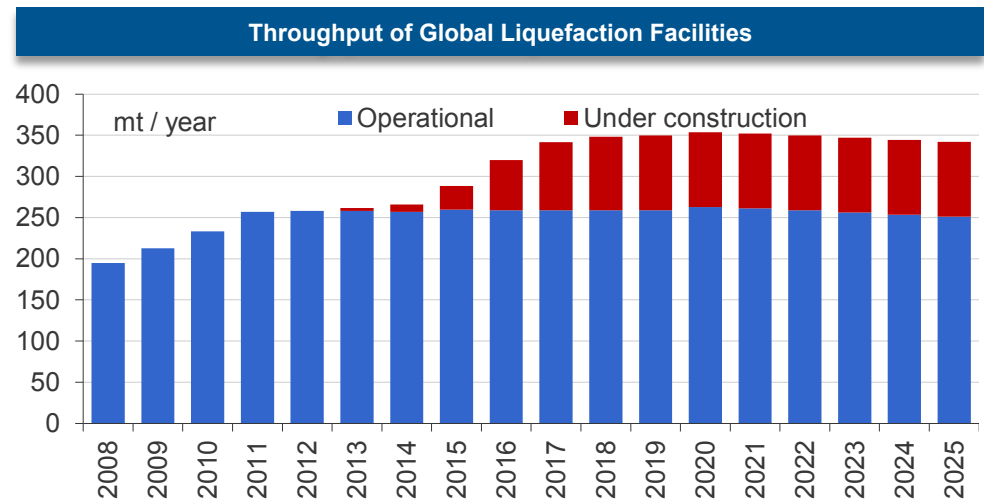
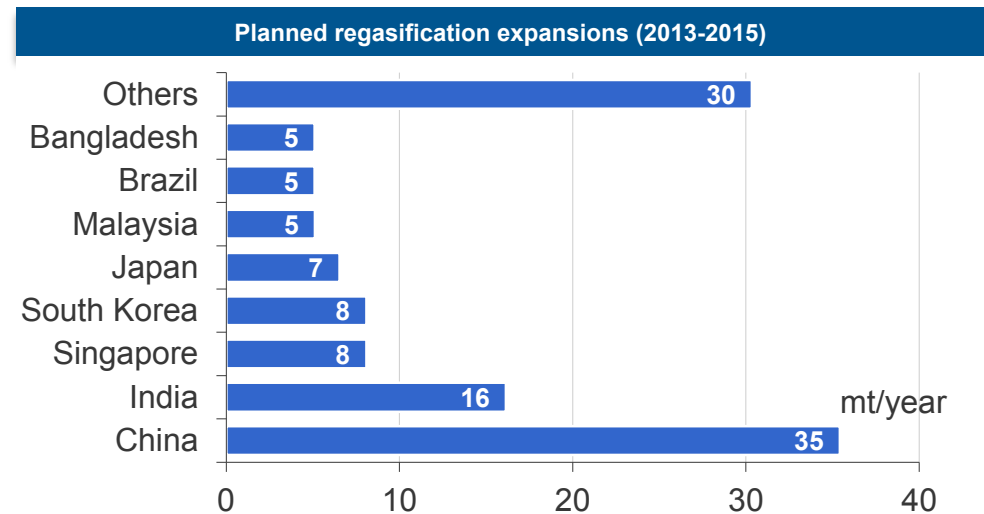
Global LNG imports by importers





## LNG market prospects

- Global LNG trade has grown 38% in 2007-2012.
- 14 liquefaction plants currently are under construction with plans to bring around 85 mt /year of capacity on the market in 2013-2017.
- But around 120 mt of regasification capacity will be added in the same time period. Most of additional regas LNG capacity is concentrated in Asia, with China and India at the top.
- China and India will become major LNG buyers by 2020. Both countries have domestic production as well as pipeline supplies so gas-to-gas competition will increase. LNG prices will be increasingly competing with possible alternative supplies.
- LNG oversupply like in 2009-2010 is unlikely. US and Canada LNG exports will not lead to market imbalance.





## US gas market

- Henry Hub prices rose +100% since May-2012 lows.
- Demand for gas from power sector seems to retreat as coal-to-gas substitution fades.
- A significant moderation in US gas production is underway as producers cut back their investments.
- The Obama administration becomes favorable towards allowing increased LNG exports. A long list of other projects is pending decisions on applications to export LNG to a wide range of countries.
- On May 17, 2013 DoE granted Freeport LNG project permission to export LNG to non-FTA countries. Off-take buyers from Freeport include Osaka Gas, Chubu Electric and BP.
- Even with granted permissions from DoE and FERC the US LNG exports will not exceed 40-60 mt by 2025 (around 12-18% of 2012 volumes).

Henry Hub prices recovered since 1H2022 lows



US Lower-48 proposed liquefaction projects with announced off-take agreements

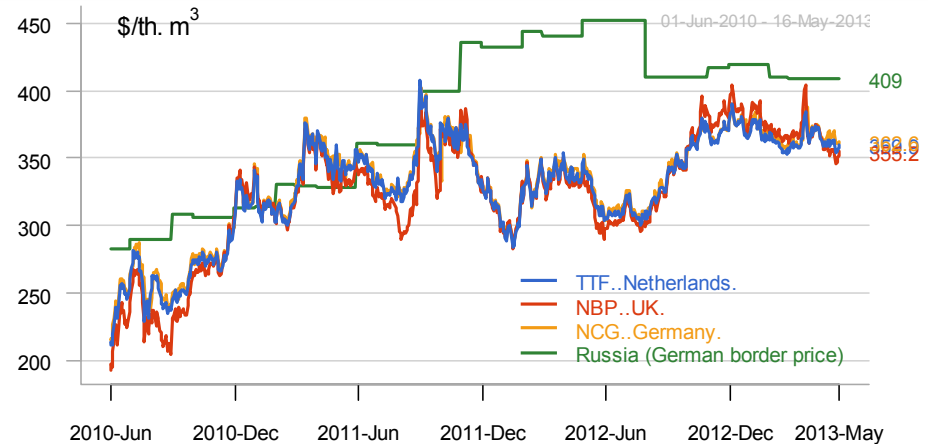
Liquefaction project	Off-take partners	Mt/year	Status of non-FTA approval
Sabine Pass	GAIL, Kogas, BG, SDG S.A. and others	16.0	<a href="#">Approved</a>
Freeport	Osaka Gas, Chubu Electric BP	10.2	<a href="#">Approved by DoE</a> , pending by FERC
Cameron	Mitsubishi, Mitsui, GDF Suez	12.4	Pending
Cove Point	Sumitomo, Tokyo Gas	7.3	Pending
<b>Total</b>		<b>45.9</b>	



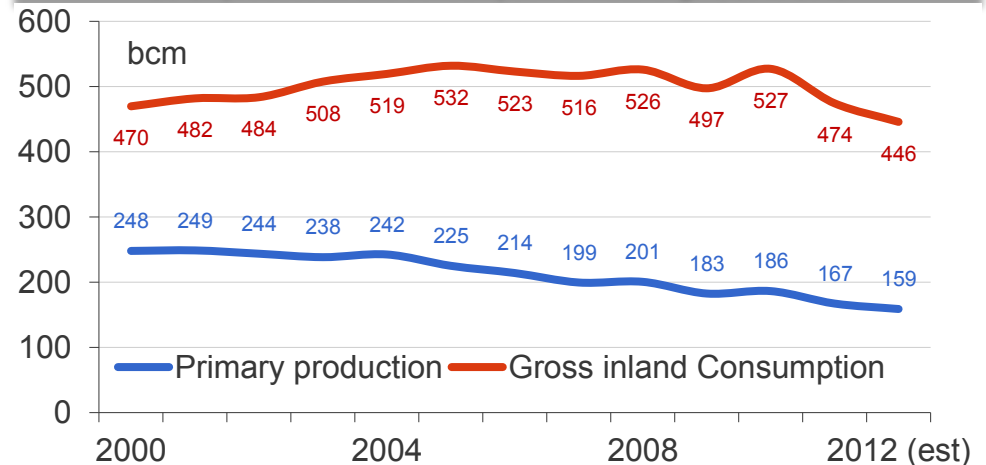
## European gas markets

- Official (Eurostat) 2012 data is still not available but preliminary calculations and estimates suggest that EU gas production is -5% in 2012. Gas demand is down -6% for 2012.
- Low relative fuel (mainly coal) and CO<sub>2</sub> prices put downward pressure on gas demand in Europe. Another fundamental factor is weak economy.
- European gas are experiencing adjustment process with hub pricing and oil-linked pricing existing together.
- Russian gas gradually improves its competitive positions vis-à-vis other exporters as Gazprom prices differential to hub prices narrows.
- US LNG projects linked to Henry Hub prices provide extra discount on Asian markets but are at par with current European prices around \$350-400 / 1000 m<sup>3</sup>. Influence of US LNG exports on European gas prices is often overestimated.

Difference between long-term contract and spot prices narrowed 1H2013



EU-27 production and consumption of natural gas, 2010-2012

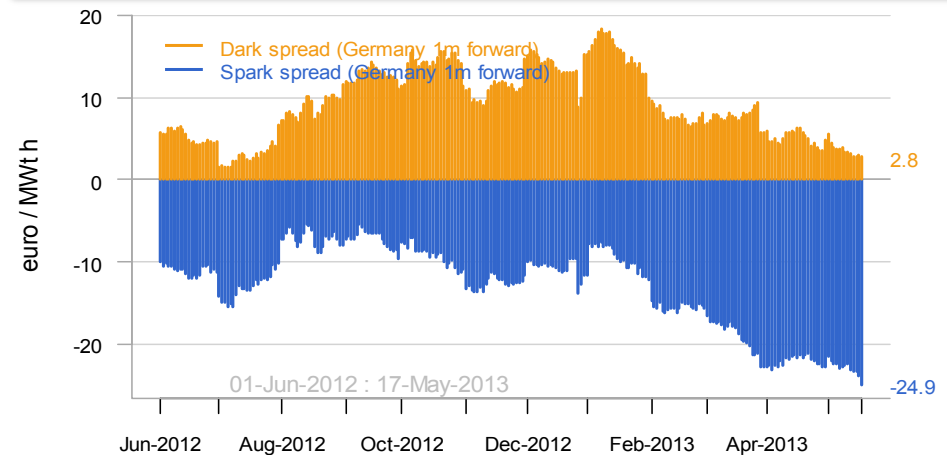




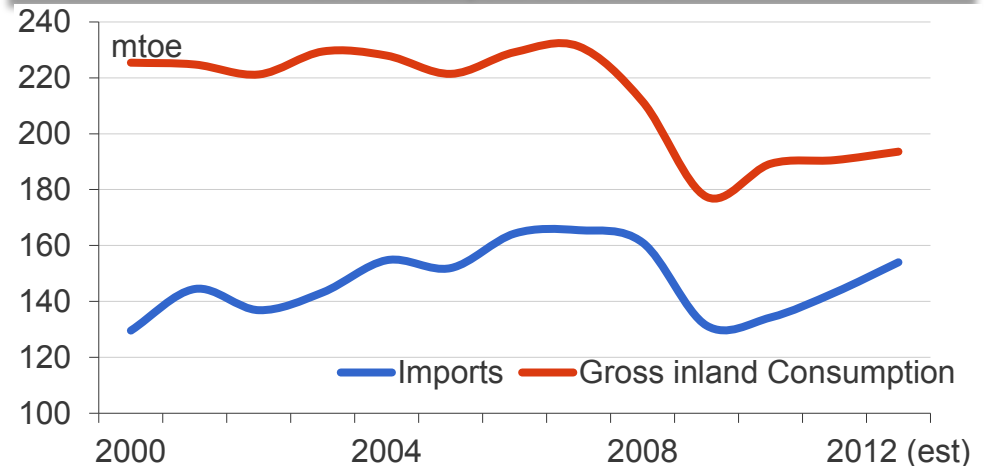
## Coal still keeps advantage over gas in European markets

- EU coal consumption probably grew 1.6% in 2012 to 194 mtoe with imports growing + 8%. European energy markets are becoming more reliant on coal.
- In 2012 US coal exports surpassed all-time high and reached 138 mt on the back of steam coal.
- Imports of coal from the US to EU were +23% to 2011 levels last year with largest increases in exports to UK (5.7 mt), Italy (+3.2 mt) and Netherlands (+3.0 mt).
- In April 2013 European parliament rejected a proposal to postpone the auctioning of emissions permits. Actual EU commitment to carbon policy is in question. Current price for emissions is \$3.50-4.0 / t and create huge incentives for growing coal generation in EU. Probably there will be no limiting factor for coal in EU till 2020.

Dark-spread and spark-spread for electricity in Germany, base demand



EU-27 coal imports and demand



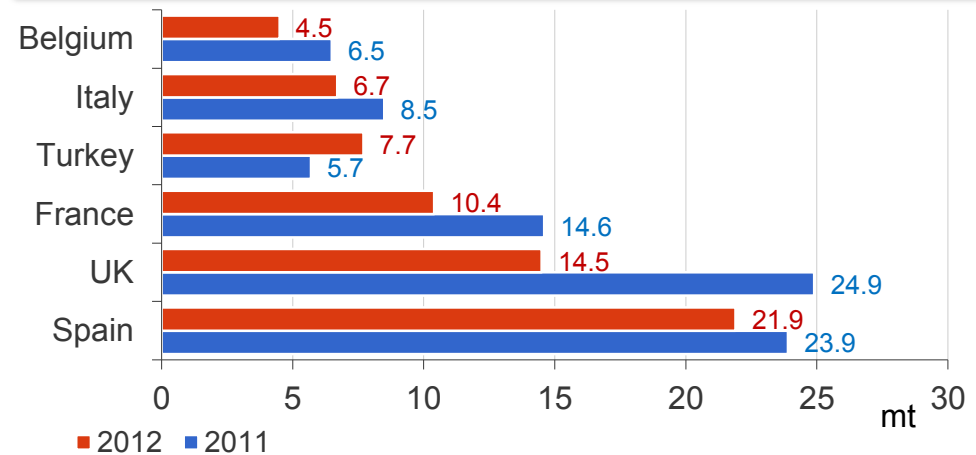




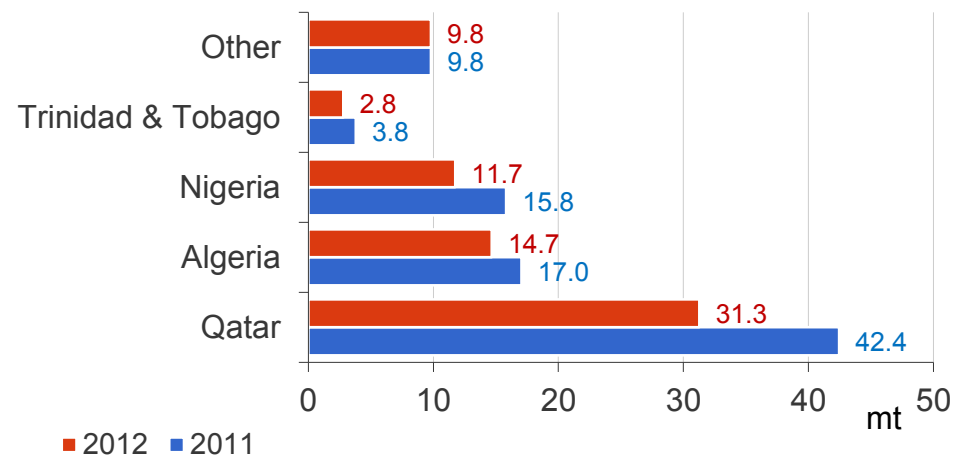
## European LNG

- LNG imports to Europe were down to 70 mt in 2012 compared to almost 89 mt in 2011 (a whopping -21.3%!). Sluggish demand for LNG in Europe continued in 1Q2013 according to available data.
- The largest demand drop for LNG in 2012 came from UK (-10.4 mt) and France (-4.2 mt).
- Every major LNG importer to Europe suffered supplies decrease in 2012. Declining LNG imports in Europe are explained by falling gas demand and appetite for LNG growing in Asia.
- Gazprom's pipeline supplies to European countries declined to 111 bln m<sup>3</sup> (-14% to levels of 2011) but still better than most LNG importers to Europe.

EU & Turkey LNG imports by importer country in 2011-2012



EU & Turkey LNG imports by explorer country in 2011-2012





## Current financial conditions for European gas companies

- Overall financial conditions remain favorable for energy players as borrowing costs decreased significantly since 2012 levels.
- CDS spreads for European gas corporate players do not reflect any serious credit risk coming from global LNG market transformation. Major companies keep robust financial performance
- We see only marginal effect of future LNG exports from North America on European gas players.
- Most influencing factor come from future pricing structure of EU market, misguided energy policies in Europe (broken CO2 markets, huge subsidies to renewables with growing coal consumption etc.)

