

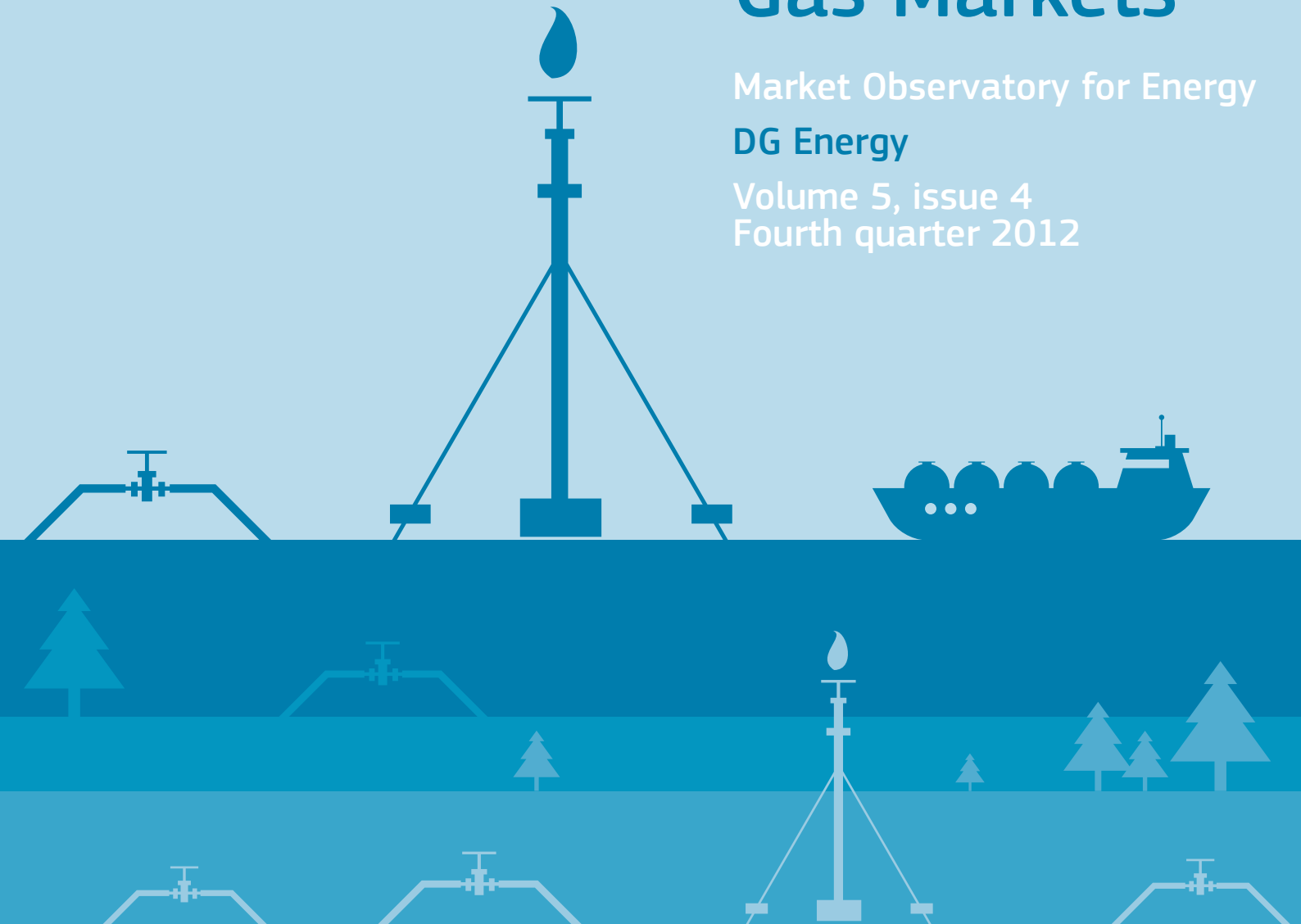


Quarterly Report

on European Gas Markets

Market Observatory for Energy
DG Energy

Volume 5, issue 4
Fourth quarter 2012



Our quarterly reports on gas and electricity have gone through some changes in terms of design, structure and contents.

The overall aim was to make our reports more concise and reader friendly, and also more timely.

At the same time, we will endeavour to make any additional analysis on the EU's gas and electricity markets available on the Market Observatory for Energy pages of the DG Energy web site (http://ec.europa.eu/energy/observatory/index_en.htm).

The Market Observatory for Energy Team, Unit A1 Energy Policy & Monitoring of electricity, gas, coal and oil markets,
DG Energy.

Content

Highlights.....	1
1. Gas Consumption – Production – Imports.....	2
2. Traded volumes on European gas hubs.....	6
3. LNG.....	8
4. Gas Storage and heating degree days.....	10
5. Wholesale gas prices.....	12
5.1. International comparisons.....	12
5.2. Comparisons between oil, gas and coal prices in the EU.....	14
5.3. Wholesale gas prices on gas hubs in the EU.....	15
5.4. Comparing the prices of different contracts for gas in the EU.....	17
5.5. LNG gas prices in the EU.....	19
6. Retail gas prices.....	20
7. Focus on «Competitive Pricing Brings Norwegian Gas Exports to the EU close to Russian Exports».....	24

Highlights

- **EU natural gas consumption continues to fall.** Third quarter 2012 levels represented the lowest quarterly consumption of the last ten years, contributing to EU consumption for the first ten months of 2012 which was 6% lower than the same period in 2011.
- **EU LNG imports are falling faster than consumption.** LNG imports fell by 33% in the first ten months of 2012, relative to the same period in 2011, with imports from Qatar, Nigeria and Algeria (the three biggest exporters of LNG to the EU) falling by between 20% and 38%. High Asian LNG prices - representing upwards of 50% premiums on average EU LNG prices - are contributing to falling LNG imports.
- **In contrast, EU coal consumption and imports continue to increase.** In the first eight months of 2012, they increased by 2% and 8% annually respectively. Imports of hard coal from Colombia and the US have risen considerably. Between January 2009 and August 2012, monthly EU imports of US hard coal more than doubled.
- **The change in US energy markets caused by shale gas production is already having significant impacts on world energy markets:**
 - Before the Fukushima nuclear accident, the EU benefited from LNG capacity originally intended for the US but which was redirected to the EU on account of falling prices for gas in the US¹ (due to shale gas production). Since the events in Fukushima, we are seeing redirections going to Japan;
 - US demand for coal for power generation is falling in favour of natural gas. Increasing supplies of coal on world markets at a time of slowing growth in emerging economies has led to falling coal prices. Coal has now become the commodity of choice in parts of the EU for power generation. This has also been helped by the low level of carbon prices in the Emissions Trading Scheme due in part to a crisis-induced general fall in EU demand.
- **EU wholesale gas market integration is growing....**
 - **Wholesale prices on European hubs are converging.** The difference between the highest and lowest hub day-ahead price dropped from close to 10 €/MWh at the beginning of the year, to less than 1 €/MWh at the end of 2012.
 - **Fewer occurrences of adverse flows** (gas flowing from a high price area to a relatively lower price area) were observed in the fourth quarter of 2012 across EU hub areas, relative to previous quarters.
 - **In addition, the role of trading hubs as an instrument for trade of natural gas in the EU continues to increase.** The volumes physically delivered on EU hubs in the first ten months of 2012 covered 82% of the total demand for natural gas in the countries covered by those hubs, compared to 74% for the full year of 2011.
- **....with clear benefits for EU gas markets in times of crisis.** During the February 2012 cold snap, EU spot prices proved effective in attracting the flow of gas to where it was needed most and allowing the normal interplay between demand and supply for natural gas to be quickly and efficiently re-established following an unforeseen, exceptional situation. This provided evidence of the benefits of an increasingly flexible, integrated EU gas market.
- **Wholesale gas import prices continue to display high fragmentation...** Import prices of piped gas and LNG across the EU vary widely, and prices have continued to increase despite falls in demand. This illustrates a disconnect in EU natural gas markets between market fundamentals and import prices. One major element of price inflexibility continues to be oil indexation: around half of natural gas supply in the EU is still indexed to oil.
- **...Although recent developments may indicate that oil indexation is on the way out.** Norwegian gas exporter Statoil has announced that it is actively moving away from oil-indexation in its gas contracts, and has agreed to renegotiate many gas contracts with European utilities in 2012 on that basis². At the same time, Norwegian exports of natural gas to the EU have increased to reach levels close to Russian exports to the EU.

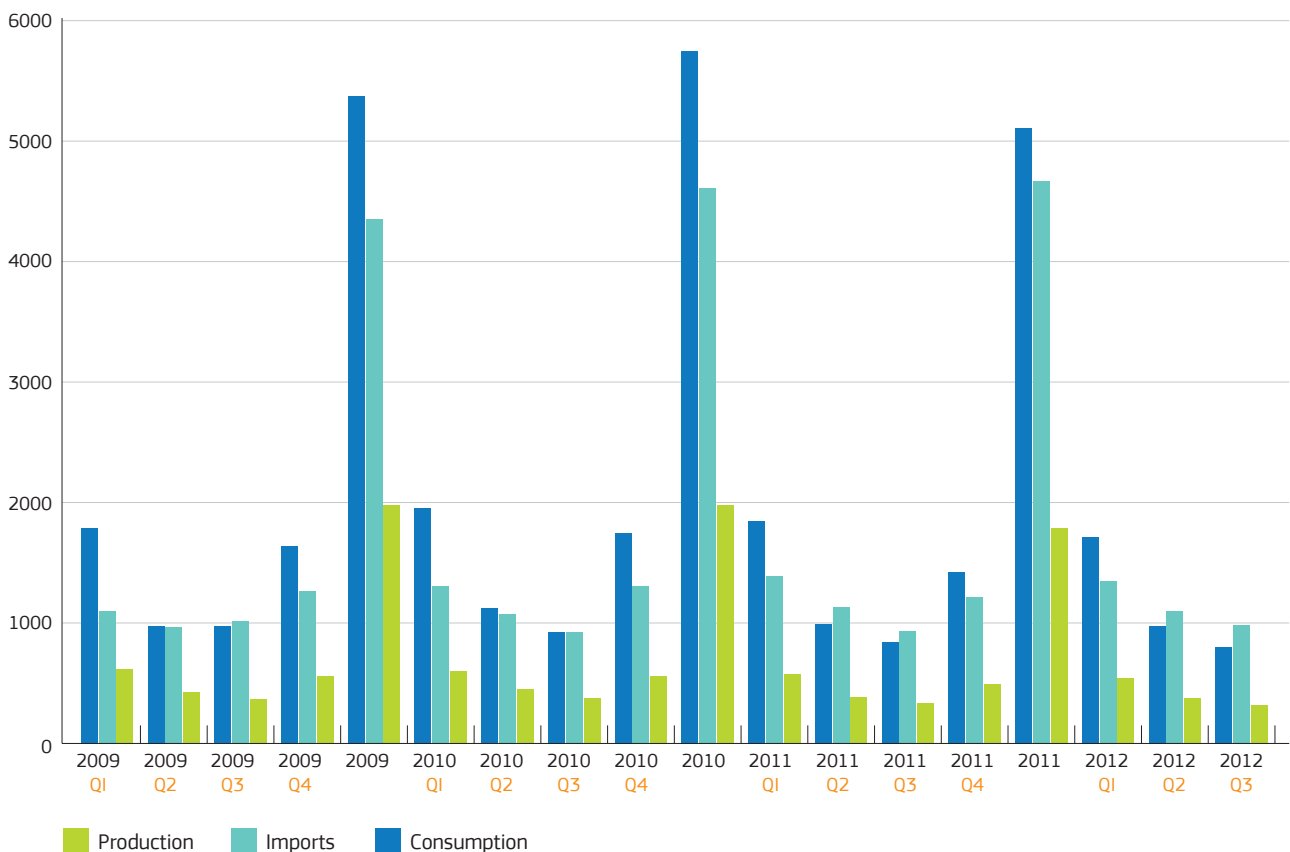
1. By the end of 2012, the US gas benchmark wholesale day-ahead price on the Henry Hub amounted to less than 40% of the cheapest price paid in the EU, on the UK's NBP hub.

2. The company has announced that it now sells just under half of its gas at oil-indexed prices, compared with around 70% in 2009, and that it projects that proportion to fall to under a quarter by 2015.

1. Gas Consumption – Production – Imports

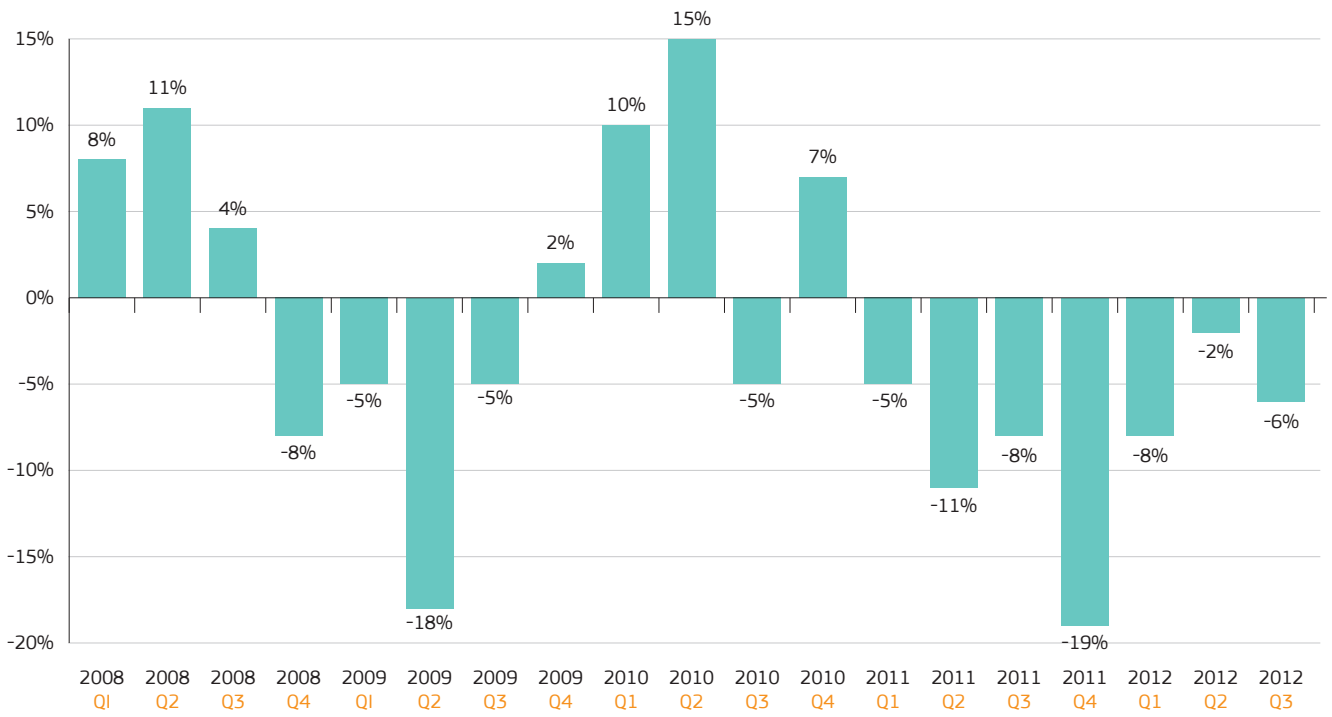
- The EU's natural gas consumption for the third quarter of 2012 represented the lowest quarterly consumption of the last ten years. It was 6% less than Q3 2011.
- Following the trend of previous quarters, this contributed to natural gas consumption for the EU 27 for the first ten months of 2012 which was 6% lower than the first ten months of 2011.
- This follows an 11% drop in natural gas consumption in the EU in 2011, compared to 2010.
- Imports of gas into the EU increased slightly in the third quarter of 2012, relative to the same period of the previous year, and import levels in the first ten months of 2012 were on a par with the first ten months of 2011.
- EU production of natural gas continues its long term decline, amounting to 1,230 TWh in the first ten months of 2012, compared to 1,298 TWh recorded over the same period in 2011 and a minimum of 1,400 TWh for the same period of the preceding ten years.

FIGURE 1 - EU 27 GAS CONSUMPTION, IMPORTS AND PRODUCTION (IN TWH)



Source: Eurostat

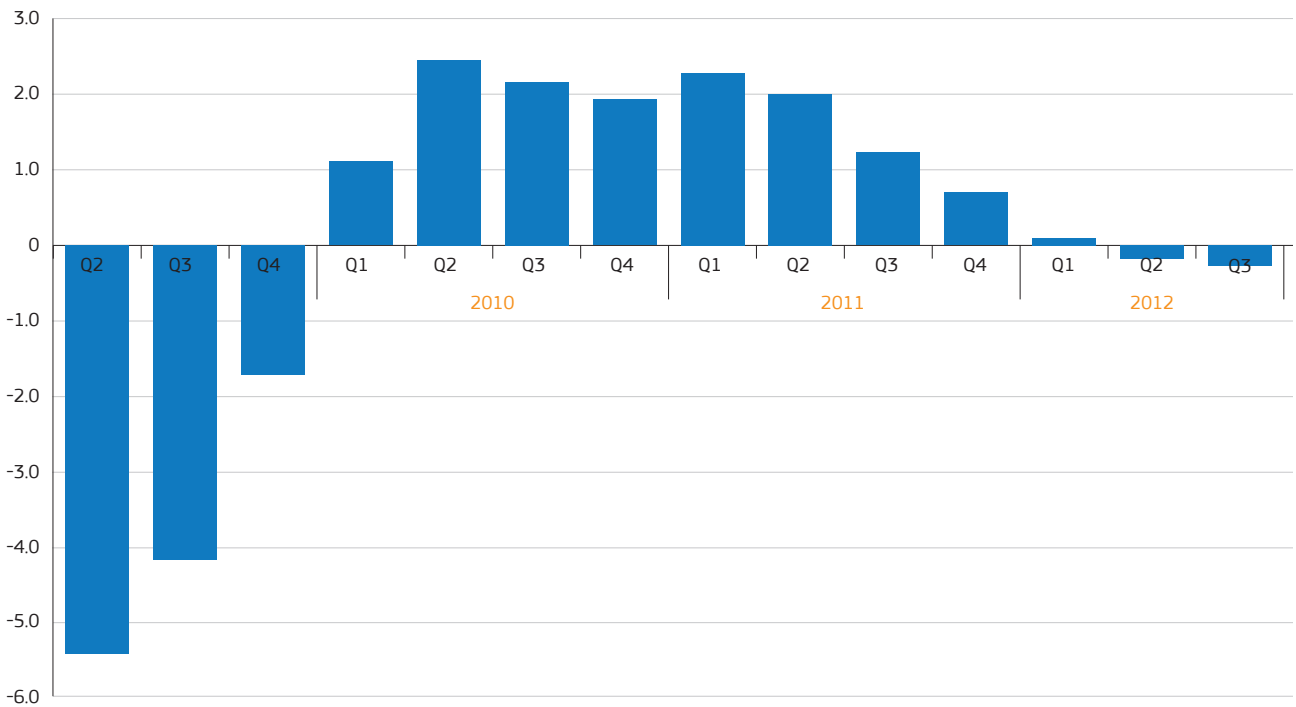
FIGURE 2 - EU 27 GAS CONSUMPTION Q/Q-4 CHANGE (%)



Source: Eurostat

- This historical low in consumption was registered alongside a return to recession in economic growth for the EU economy, with two subsequent quarters of negative growth (second and third quarters of 2012).

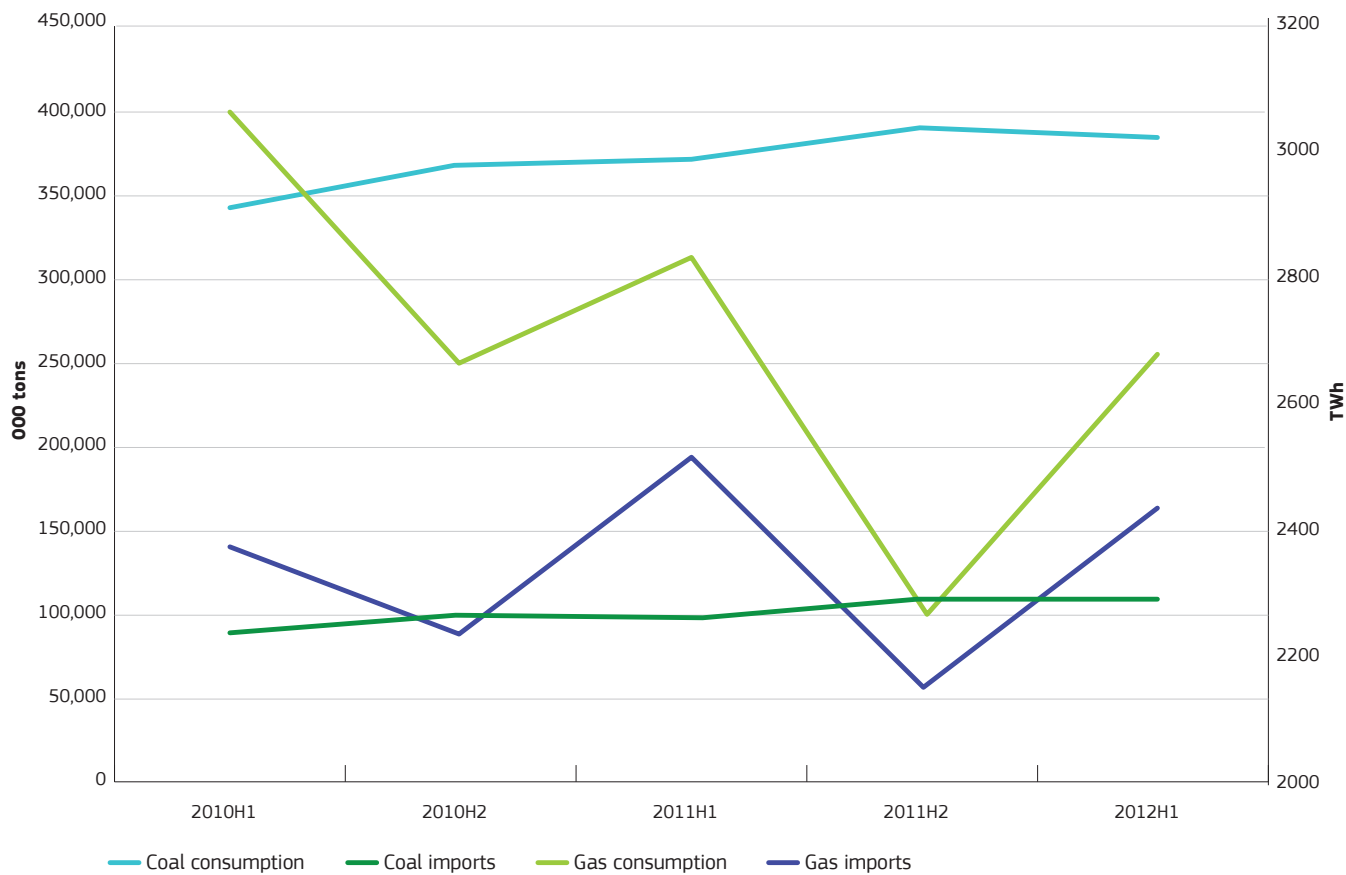
FIGURE 3 - EU 27 GDP Q/Q-4 CHANGE (%)



Source: Eurostat

- Following from the analysis presented in the last issue of this report on the growth of EU coal imports, the graph below shows that as EU natural gas consumption has declined, EU consumption and imports of coal (in this graph, hard coal and lignite) have increased (by, respectively, 4% and 10% for the first half of 2012, relative to the same period in 2011).

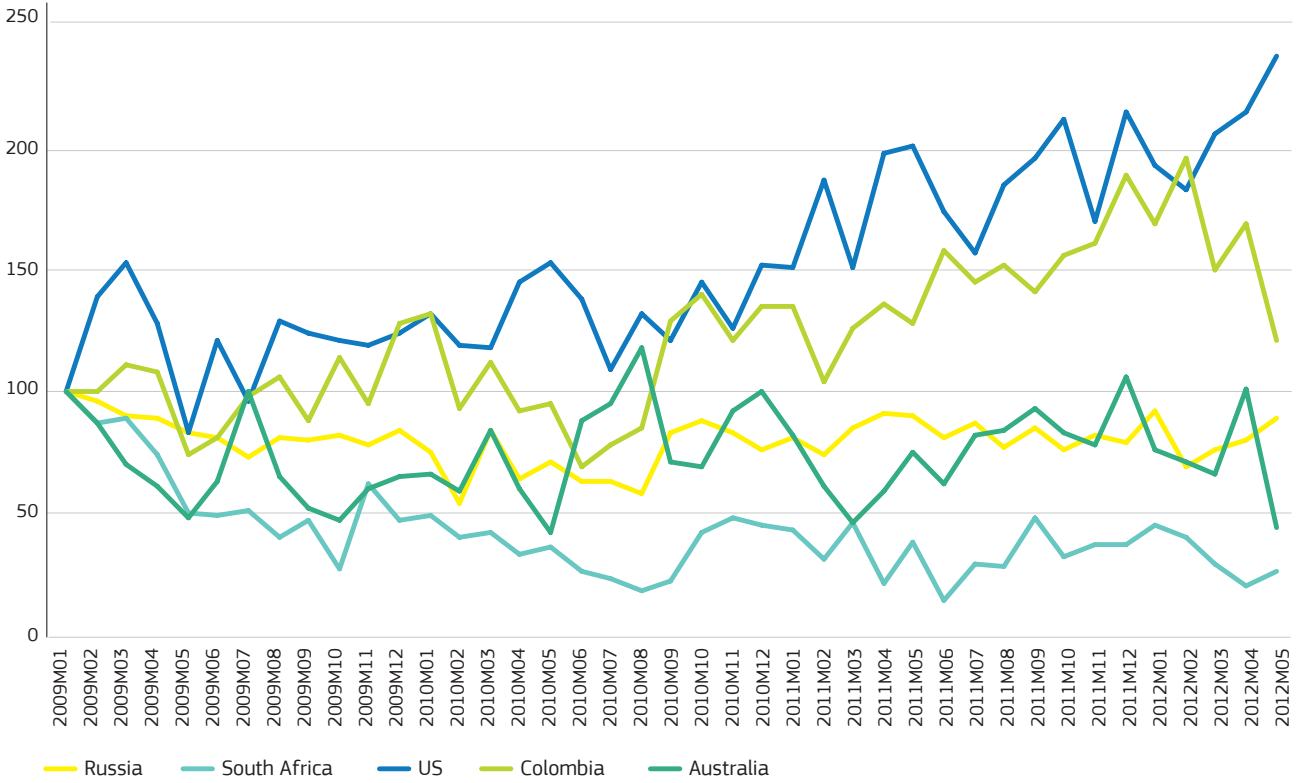
FIGURE 4 - EU 27 CONSUMPTION AND IMPORTS OF GAS AND COAL COMPARED



Source: Eurostat : Left-hand scale: Coal. Right-hand scale : gas

- Looking more closely at EU hard coal imports from the EU's five largest coal exporters (representing 80% of hard coal imports in 2011), we can observe that while imports from South-Africa have fallen, and those from Russia and Australia have remained relatively stable, imports from Colombia and the US have risen considerably. Between January 2009 and August 2012, monthly EU imports of US hard coal increased more than twofold.

FIGURE 5 - EU 27 HARD COAL IMPORTS (INDEX, JANUARY 2009 = 100)

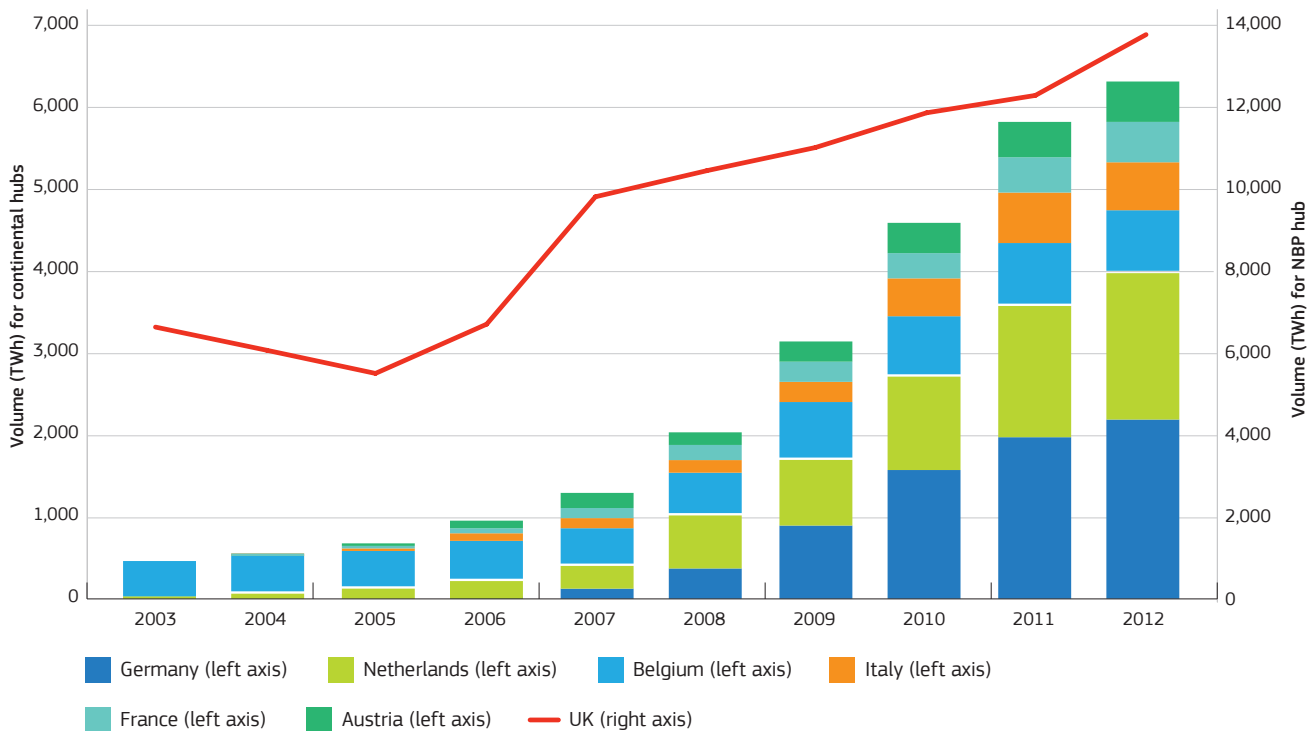


Source: Eurostat

2. Traded volumes on European gas hubs

- The volume of total traded gas on European gas hubs in 2012 was 20,135 TWh in 2012. The UK NBP – the largest hub in the EU – traded 13,765 TWh in 2012, compared to 1,818 TWh in the Netherlands - the next biggest hub in Europe - and a total of 6,371 TWh for all continental hubs.
- Relative to 2011, volumes of gas traded on EU hubs increased by 11%. Continental hubs (excluding the UK's NBP) experienced an overall increase of 9%, which is considerably below the 27% registered in 2011, and even less than the 48% average yearly increase in traded volumes registered between 2005 and 2009. Thus the growth of traded volumes on continental European hubs in 2012 was not as impressive as in recent years.
- However, in 2011, the volumes physically delivered on EU hubs covered 74% of the total demand for natural gas in the countries covered by those hubs (UK, NL, BE, DE, FR, AT and IT). For the first ten months of 2012, this proportion increased to 82%. This shows that the role of trading hubs as an instrument for exchange of natural gas ownership in the EU continues to increase.

FIGURE 6 - TRADED VOLUMES ON EUROPEAN GAS HUBS

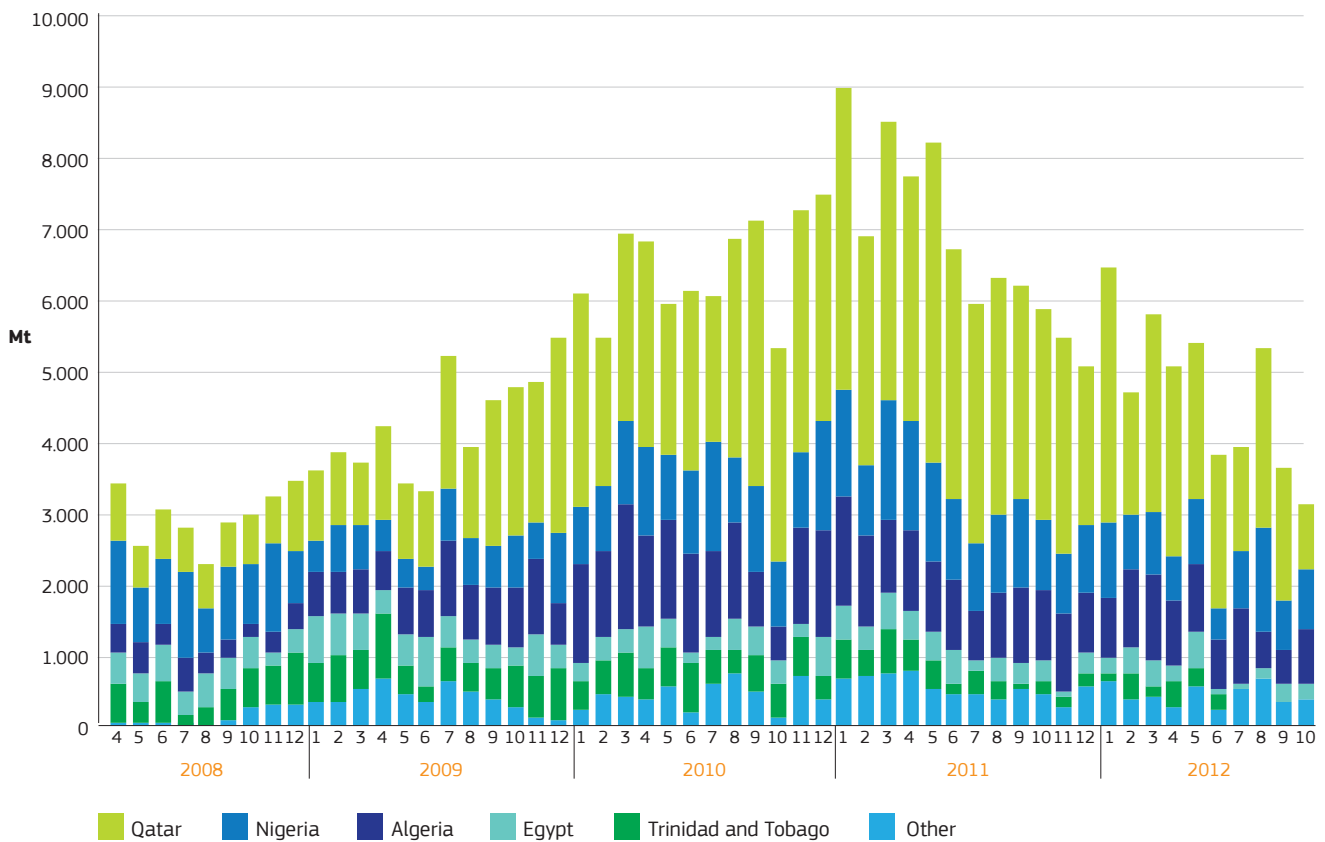


Source: IEA

3. LNG

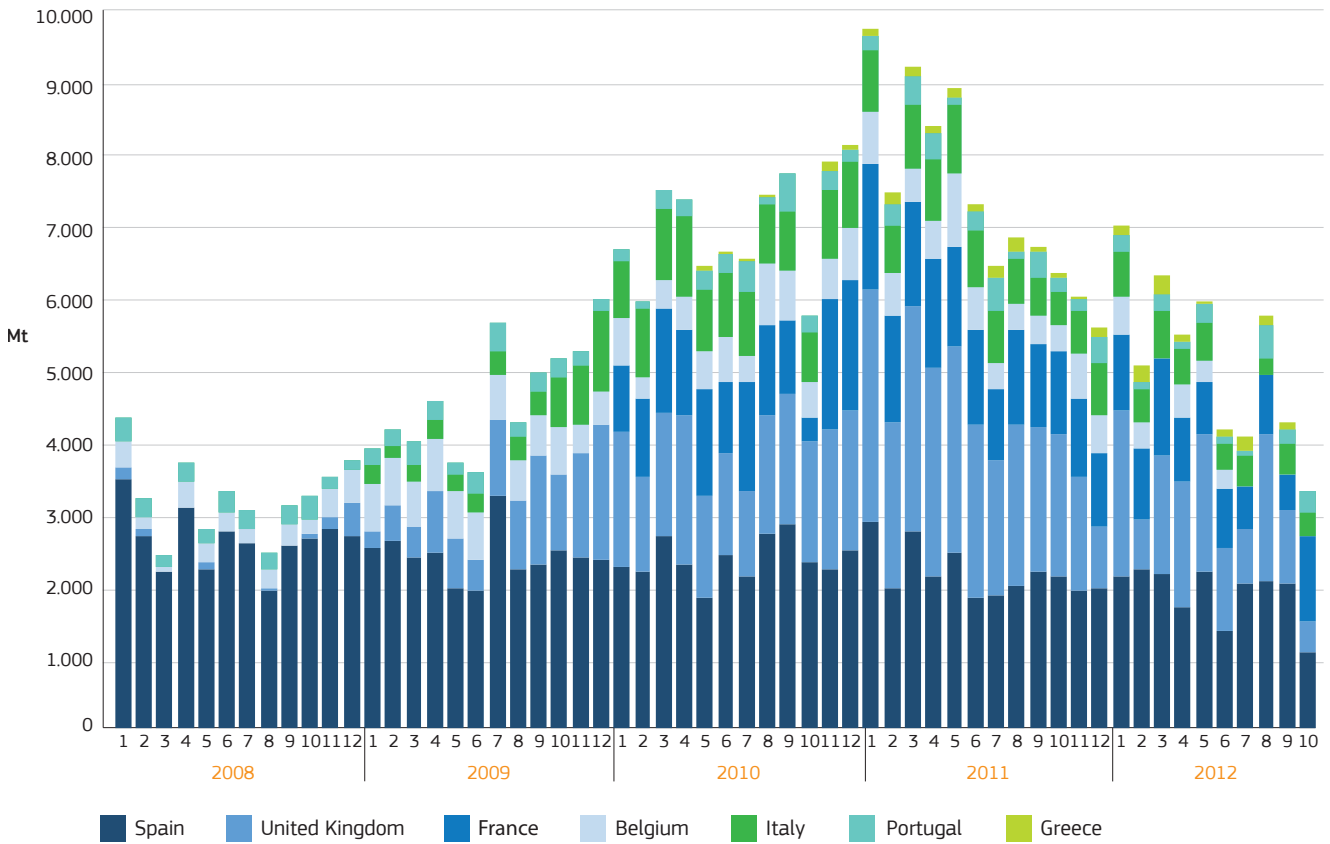
- As we have already pointed out in recent issues of this report, after quasi uninterrupted and continuous growth in LNG imports on a quarterly basis since the beginning of 2009, LNG imports began falling in the second quarter of 2011. The trend of falling LNG imports continued in 2012. Looking at imports covering the first ten months of the year, the EU imported 33% less LNG than the previous year, with imports from Qatar, Nigeria and Algeria (the three biggest exporters of LNG to the EU) falling respectively by 38%, 32% and 20%.

FIGURE 7 - EU LNG IMPORTS BY COUNTRY OF ORIGIN



Source: Eurostat COMEXT

FIGURE 8 – EU LNG IMPORTS BY MEMBER STATE

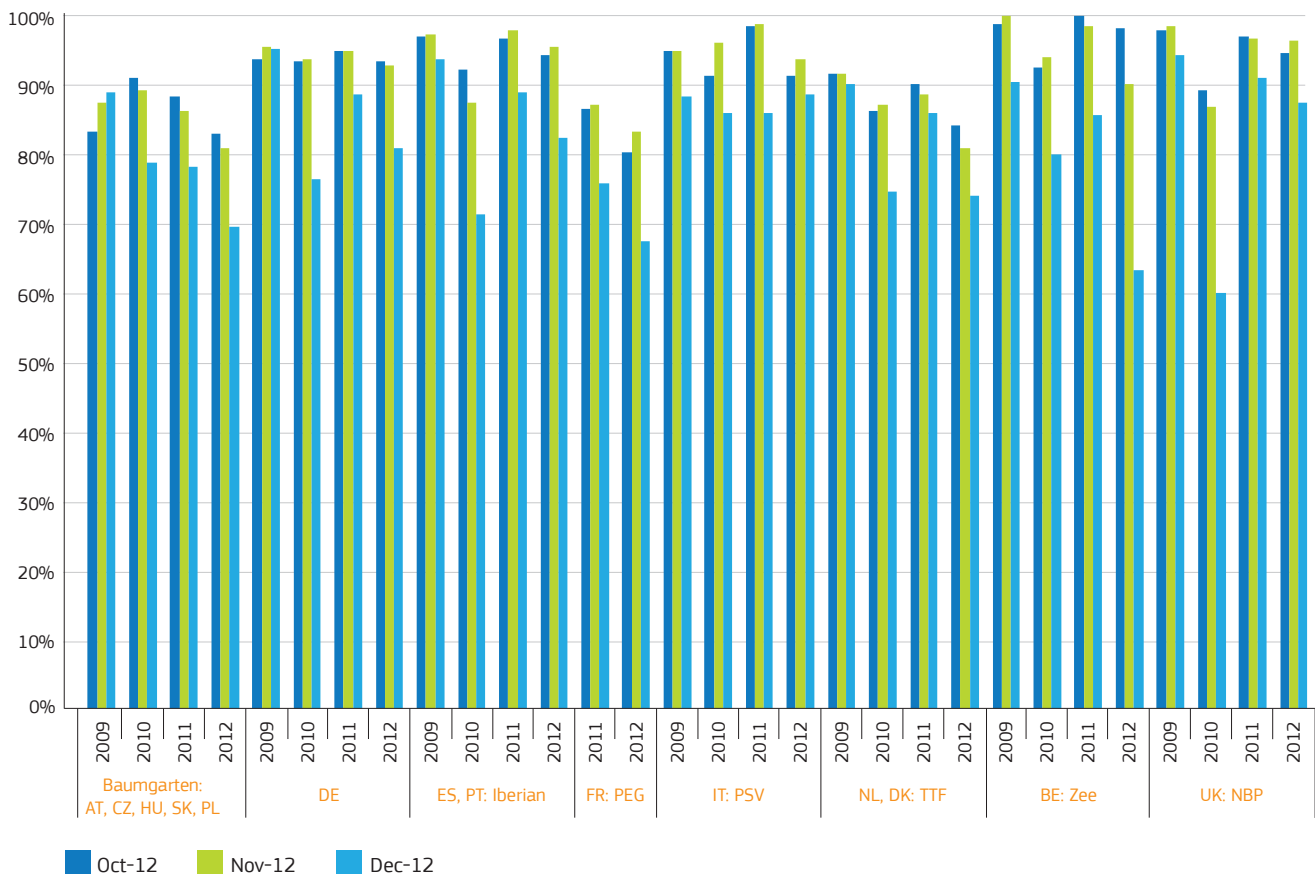


Source: Eurostat COMEXT Italian data reported from January 2009. French data reported from January 2010.

4. Gas Storage and heating degree days

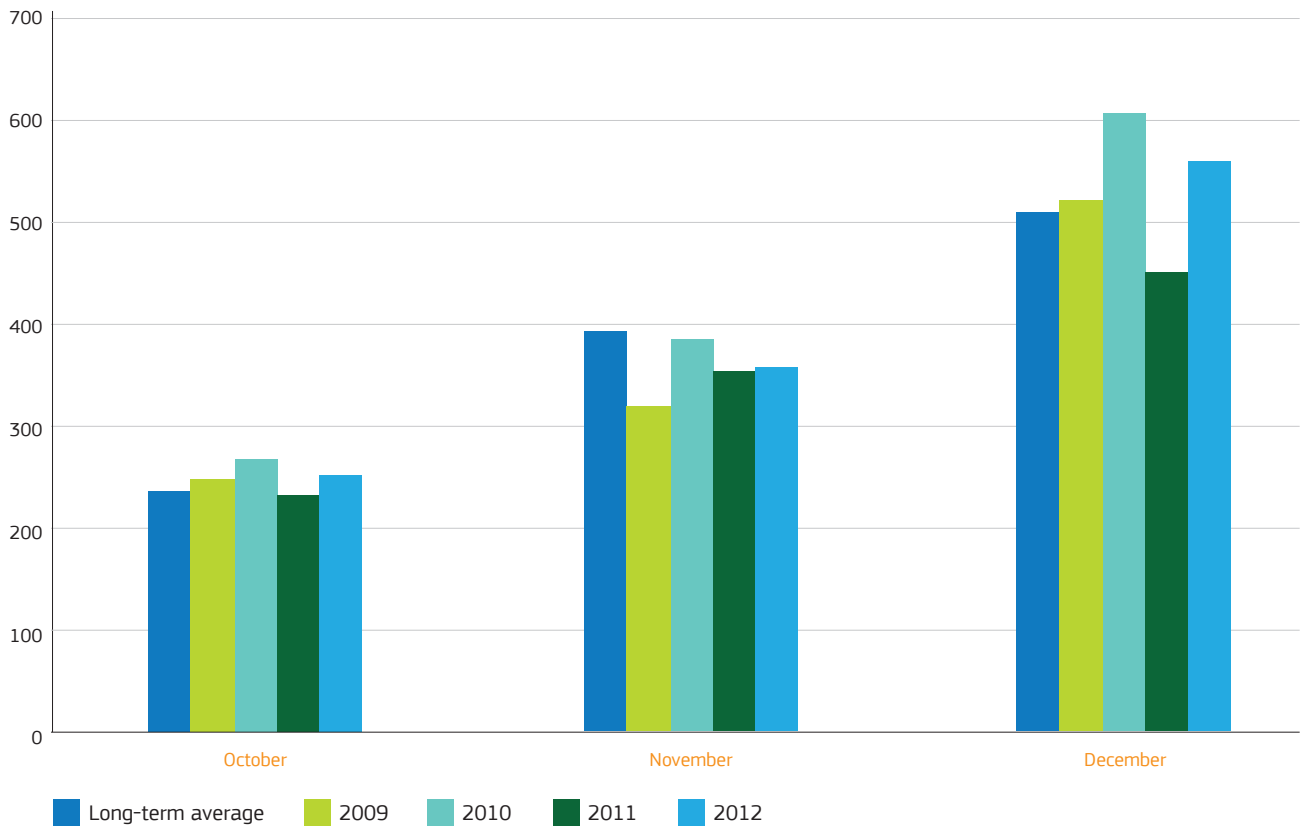
- The chart below provides a comparison of the storage levels for the last quarter of the years 2009-2012 in the various regions covered by the EU's hubs. It can be seen that by and large, Q4 2012 storage levels were lower than Q4 2011 levels.
- As can be seen in the chart further below, temperatures for the last quarter of 2012 for the EU as a whole expressed in heating degree days did not show significant deviations from the long term average values (see table below) nor from temperatures for the same period in recent years.
- The number of heating degree days did however augment quite considerably over the course of the quarter, as per usual, such that storage withdrawals would have been made in order to supplement imports and production of natural gas to meet demand.
- In the regions covered by the Baumgarten, PEG and Zeebrugge hubs, storage capacity did drop to levels lower than the last few years in the month of December. This however did not translate into increased prices on these hubs, relative to other hubs.
- General decreases in gas storage levels across the EU have been driven by the falling price differential in recent years between winter and summer gas, which has decreased the incentive to buy in the summer, when prices can be expected to be cheaper, in order to stock for use in the winter, when prices, and demand, increase.

FIGURE 9 - GAS STORAGE LEVELS IN 2012 IN % OF MAXIMUM GAS STORAGE CAPACITY



Source Gas Infrastructure Europe - *AT, CZ, HU, SK, PL

FIGURE 10 - EU 27 HEATING DEGREE DAYS (HDDs)



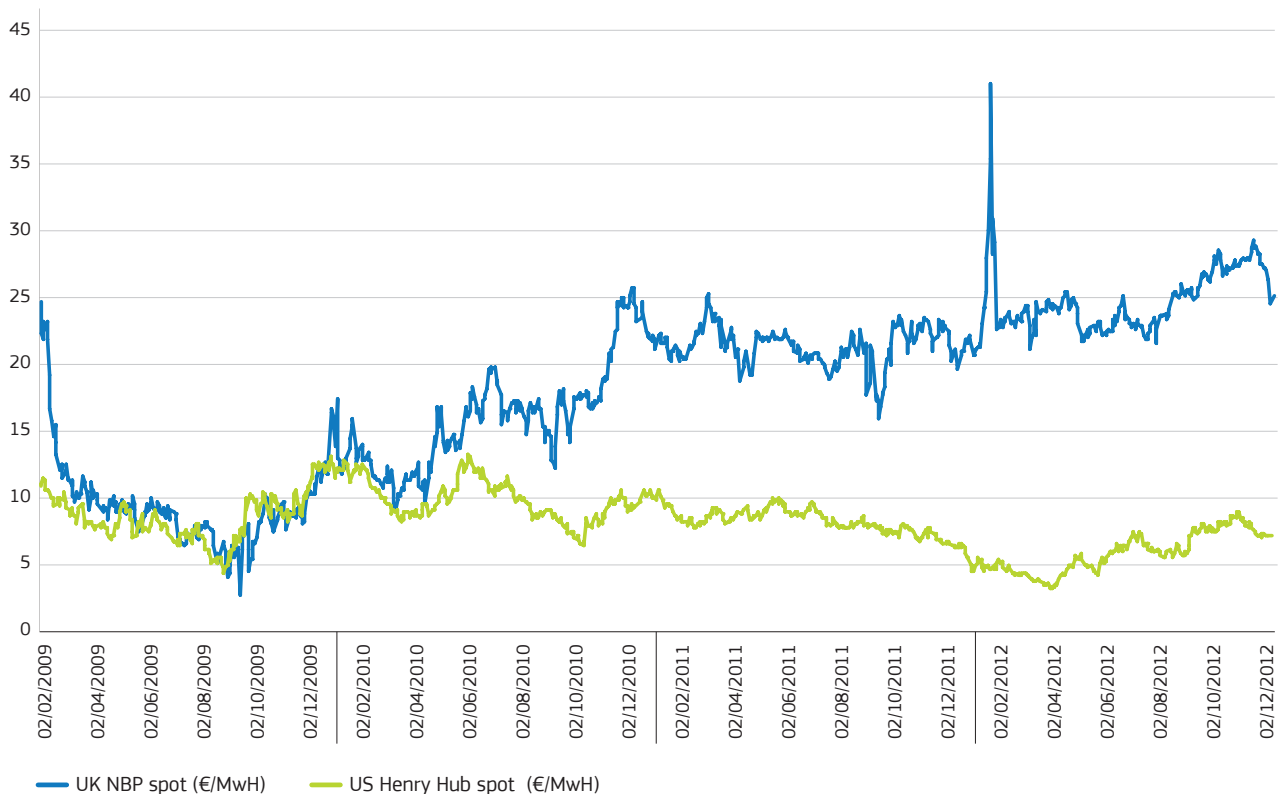
Source: Eurostat/JRC. The colder the weather, the higher the number of HDDs.

5. Wholesale Gas prices

5.1 International comparisons

- The continued variation between the EU and US prices for natural gas can be illustrated in the graph below, which shows a comparison between the benchmark UK NBP and US Henry Hub spot prices.
- The US clearly continues to benefit from the effect of US unconventional gas production, giving US consumers of natural gas a discount relative to EU consumers equivalent to more than 15 €/MWh by the end of 2012, or a wholesale price amounting to less than 40% of the cheapest price paid in the EU, on the UK's NBP hub.

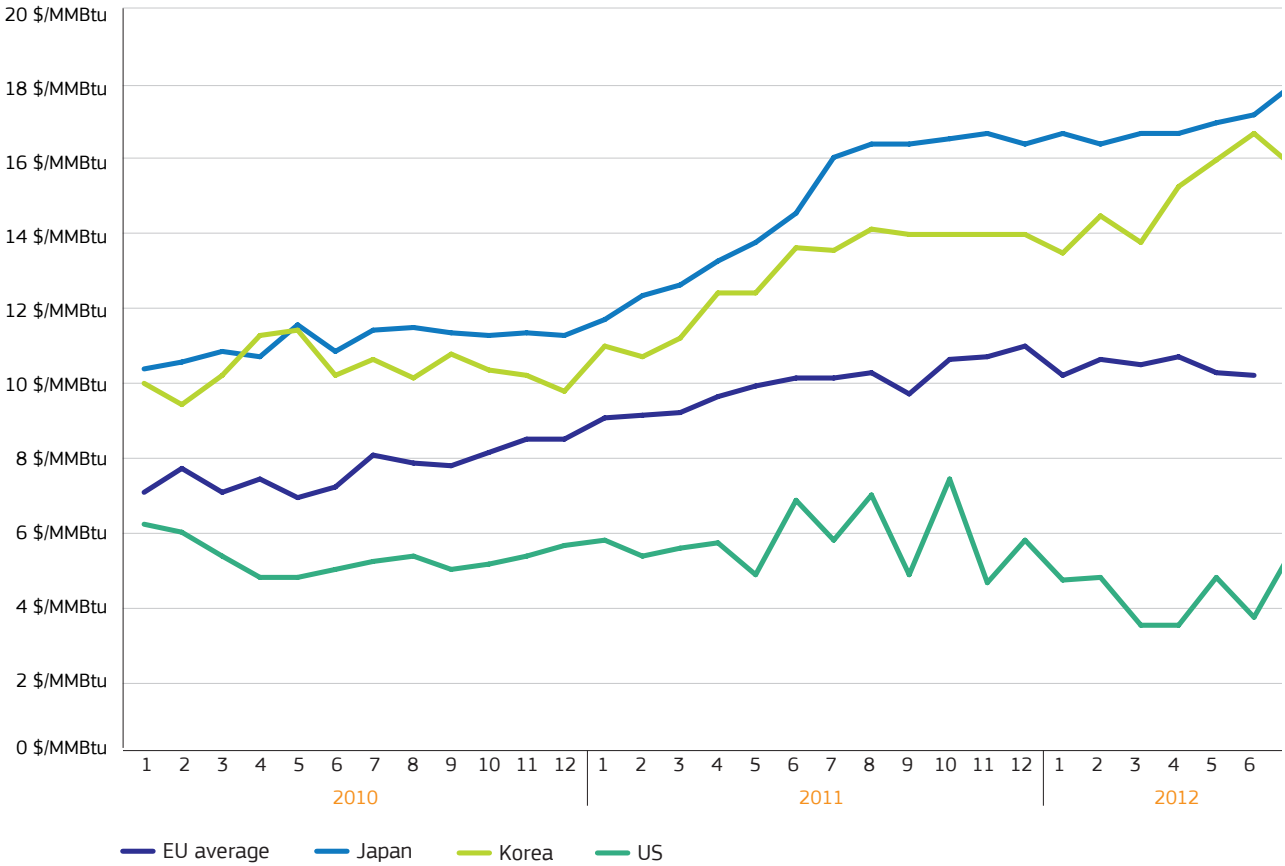
FIGURE 11 - COMPARISON OF WHOLESALE GAS PRICES IN THE UK AND US



Source: Platts and Thompson Reuters

- If we turn to the graph below, showing a comparison of LNG prices in competing markets of the US, EU, Korea and Japan, it can be seen that Korea and Japan remained particularly attractive markets to LNG exporters in mid-2012, on account of a persistent large premium relative to EU LNG contracts (of 52% for the price paid for LNG in Korea and 74% in Japan, on average, in July 2012, given that prices were 18 \$/MMBtu for Japan, 15.7 \$/MMBtu for Korea, 10.4 \$/MMBtu for the EU average).

FIGURE 12 - LNG PRICES IN EU, US, JAPAN AND KOREA

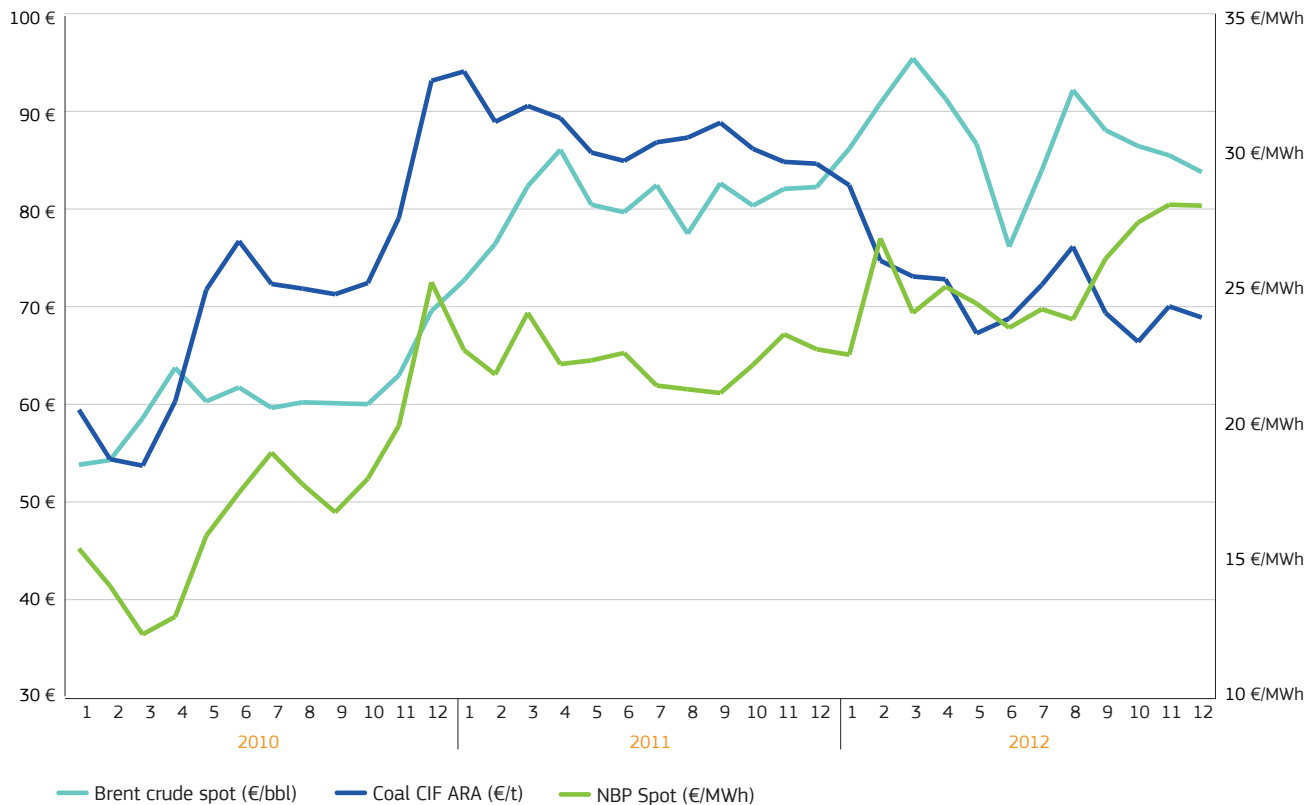


Source: Eurostat Comext, Gas Strategies

- The premium offered by Japan for LNG imports clearly represents an incentive for exporters, which would explain falling LNG deliveries to the EU. It is estimated that it costs an exporter such as Qatar some 4 \$/MMBtu for the extra costs of freight to Japan. At July prices, it means that exporters were making an extra 4 \$/MMBtu in profit sending it there rather than to the EU.
- There is therefore no guarantee that with recovering demand for natural gas in the EU in the future, LNG, which rose to represent 20% of total EU gas imports in 2011, will continue to be as easily or cheaply available as in recent years.
- This is an example of globalising energy markets at play. Before Fukushima, the EU benefited from LNG capacity originally intended for the US but which was redirected to the EU on account of falling prices for gas in the US (thanks to unconventional gas). Post Fukushima, we are seeing redirections going to Japan, which is – for the moment – happy enough to continue to pay record high prices for LNG.

5.2 Comparisons between oil, gas and coal prices in the EU

FIGURE 13 - SPOT PRICES OF OIL, COAL AND GAS IN THE EU



Source: Platts

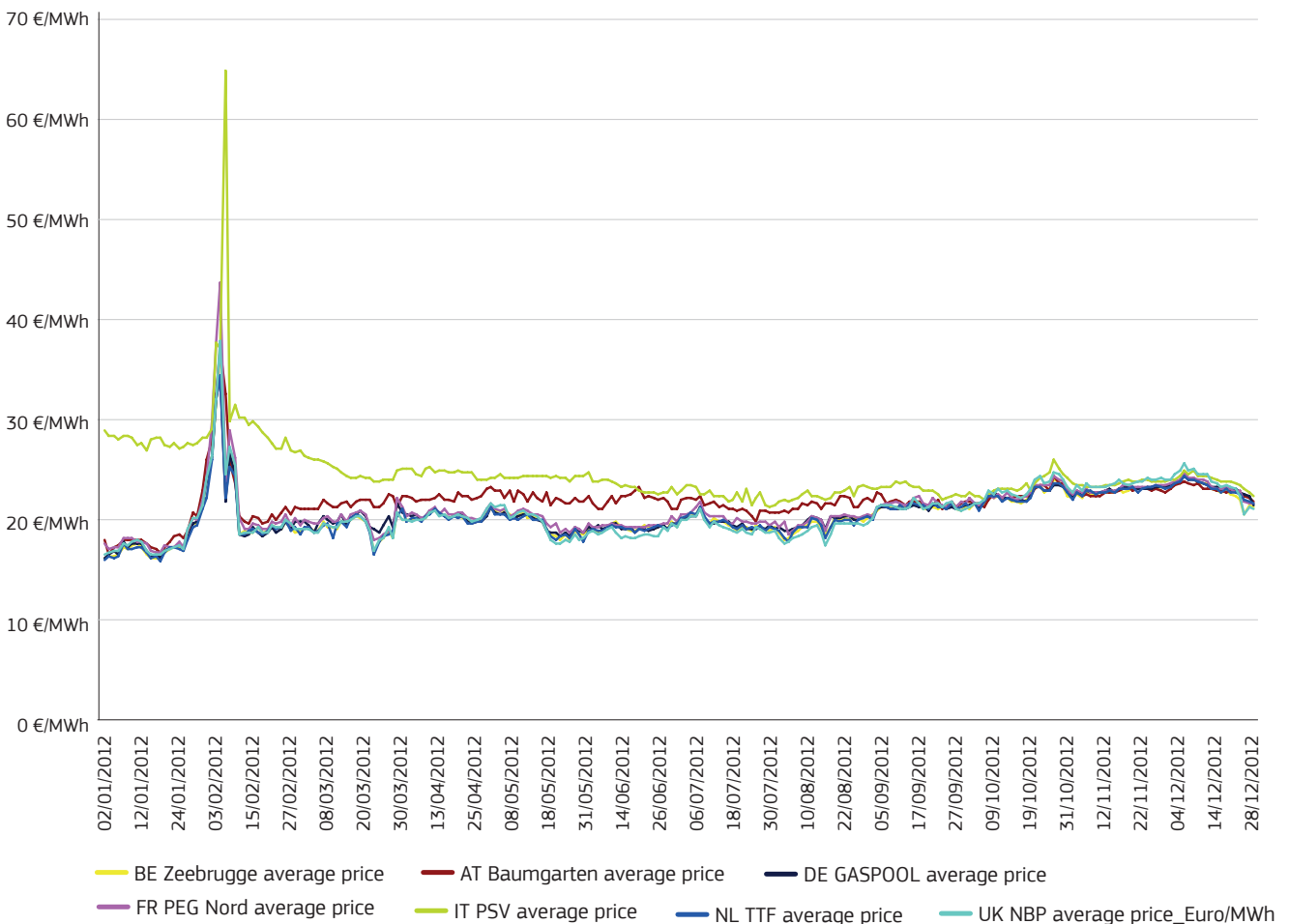
- As we have highlighted in recent issues, there has been a clear decoupling between coal prices on the one hand and oil and gas prices on the other since 2011. Between the beginning of 2011 and the end of 2012, the EU coal price fell by 27%, while the price of oil increased by 15% and that of natural gas also increased, by 23%.
- The different price dynamics between the various energy commodities is important as it has been defining demand. As we saw in earlier charts, EU coal demand and imports have been sustained as prices for the commodity have been falling while, inversely, demand for natural gas has been falling as prices have been rising.
- As we highlighted in the last issue of this report, at the root of the coal/gas price dynamics has been the shale gas revolution in the US. What we first saw occurring with LNG is now happening with coal. The effect of large increases in US unconventional gas production has been the fall in US demand for coal for power generation, in favour of natural gas. Increasing supplies of coal on world markets at a time of slowing growth in the emerging economies, has led to falling prices in the commodity. Coal has now become the commodity of choice in parts of the EU for power generation. This has also been helped by the low level of carbon prices due in part to a crisis-induced general fall in EU demand.
- And in terms of numbers on power generation, data from the IEA reveals that in the first 6 months of 2012 power generated from gas-fired plants decreased significantly in the UK (-33%), Germany (-15%) and Spain (-12%), while coal fired generation was up by 35% in the UK, 8% in Germany and by 65% in Spain relative to the first half of 2011 [for more details see latest issue of the Quarterly Report on Electricity Markets].
- It reminds us, in this globalised and globalising world, that no country is an energy “island” and that the interactions between different fuels, markets and prices are intensifying.

- These types of developments are also showing that energy developments in the US are profound and that their effects are already being felt well beyond that country.
- Going forward, the IEA in their most recent World Energy Outlook state that price relationships between regional gas markets are set to strengthen as LNG trade becomes more flexible and contract terms evolve, meaning that changes in one part of the world will be more quickly felt elsewhere.

5.3 Wholesale gas prices on gas hubs in the EU

- The graph below shows the evolution of European hub day-ahead natural gas prices in 2012. What can be clearly seen is that there has been a remarkable convergence in those prices in the last quarter of the year. If we consider average monthly values, the difference between the highest and lowest hub day-ahead price went from close to 10 €/MWh at the beginning of the year, to less than 1 €/MWh at the end of 2012.
- European hub prices have rarely been so close in the past, especially at this time of year. Most remarkable has been the closeness of the Italian price to other prices, as it typically trades at quite a premium to other hubs, especially during the winter months, when the Italian price has often exceeded the UK NBP price (usually the cheapest) by 10 €/MWh, as was the case in the winter of 2011.

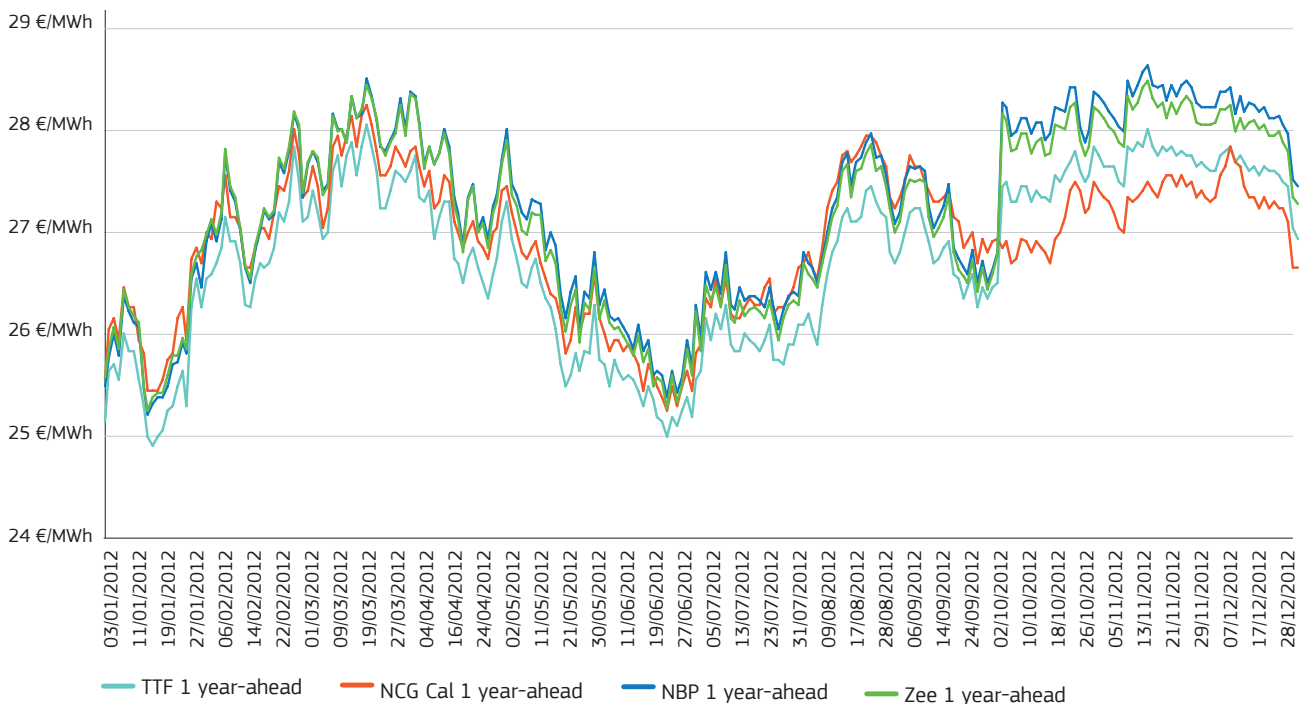
FIGURE 14 - AHEAD GAS PRICES ON GAS HUBS IN THE EU



Source: Platts

- In terms of the evolution of hub prices over the course of 2012, the major event was the sudden and unexpected fall to record low temperatures at the beginning of February 2012 across Europe which led to a sharp and significant increase in demand for natural gas, which in turn put pressure on gas supplies. As a consequence, wholesale hub prices increased significantly, providing the signals for gas flows and bringing all available generation capacities online.
- Reverse flows (both virtual and physical) were fully utilised to allocate gas to where it was most valuable. For instance, gas from Germany was sent to Poland, Austria and the Czech Republic. In addition, numerous swaps took place between the TSOs of Germany, Switzerland, Belgium and France to transport gas from East to West, while avoiding congested areas, such as Southern Germany. Attracted by higher prices on the continent, physical flows of gas were supplied from the UK to other parts of North Western Europe via the reversible UK-Belgium pipeline, thereby quickly contributing to reducing the price differential.
- Substantial withdrawals from underground storages that were almost full due to the mild winter conditions of the previous months also greatly contributed to meet the sudden increase in gas demand.
- The normal interplay between demand and supply for natural gas could quickly and efficiently be re-established following an unforeseen, exceptional situation, thereby underlining the benefits of an increasingly flexible, integrated EU gas market.
- With the exception of a single day's occurrence on the BBL (NL to UK) pipeline, no adverse flows (FAPDs)³ were observed between the actively traded market areas in the EU in the fourth quarter of 2012. In that quarter, we also observed a growing number of adjacent areas where market participants shipped gas in response to price signals, as this expanded to include gas flows from the UK to the Netherlands and from Austria to Germany, where relatively high occurrences of FAPDs had been observed previously. Throughout 2012, FAPDs remained very low between Belgium and the UK, Belgium and the Netherlands, Austria and Italy and between the two price areas in France. Graphs showing FAPDs for that period can be seen in the website of DG Energy's Market Observatory for Energy (http://ec.europa.eu/energy/observatory/gas/doc/2012q4_gas_fapd.pdf)

FIGURE 15 – ONE YEAR FORWARD GAS PRICES ON GAS HUBS IN THE EU



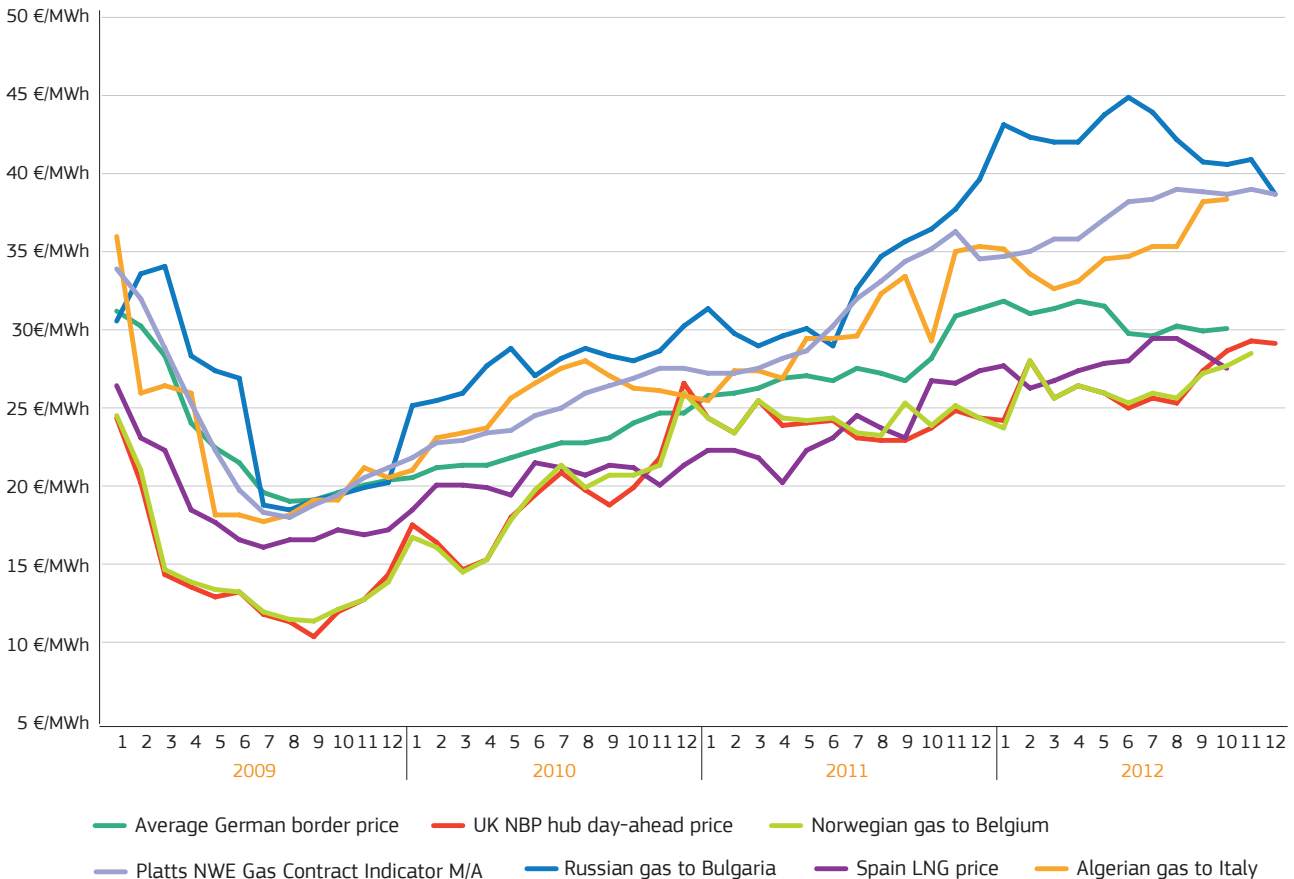
- One year forward prices were largely in contango with day-ahead prices, even if the difference with day-ahead contracts was on the whole rather small, which is unsurprising given that, in spite of falling demand for natural gas since the last year and continued economic difficulties, day-ahead prices have stayed at close to historically high levels. With no signal of an imminent change in circumstances, expectations have therefore been for little upside in prices going forward.

3. For several issues of this report, we have been reporting on comparisons of cross-border gas flows and the relative price differentials between different adjacent areas covered by EU hubs. We have referred to 'adverse flows' as representing flows of gas from one hub area to another when the difference in prices between the two areas would, in efficiently functioning markets, normally not be observed, i.e: when gas is flown from a high-price area to a relatively lower price area. We have referred to such adverse flows as occurrences of FAPD, for Flow Against Price Differentials.

5.4 Comparing the prices of different contracts for gas in the EU

- Turning now to a comparison of different contracts of natural gas prices, shown in the graph below. It can be seen that despite falling consumption since 2011, the trend has been generally one of continued increases in natural gas prices, even if one can detect some stability across 2012, at least when looking at this selection.

FIGURE 16 – COMPARISON OF EU WHOLESALE GAS PRICES

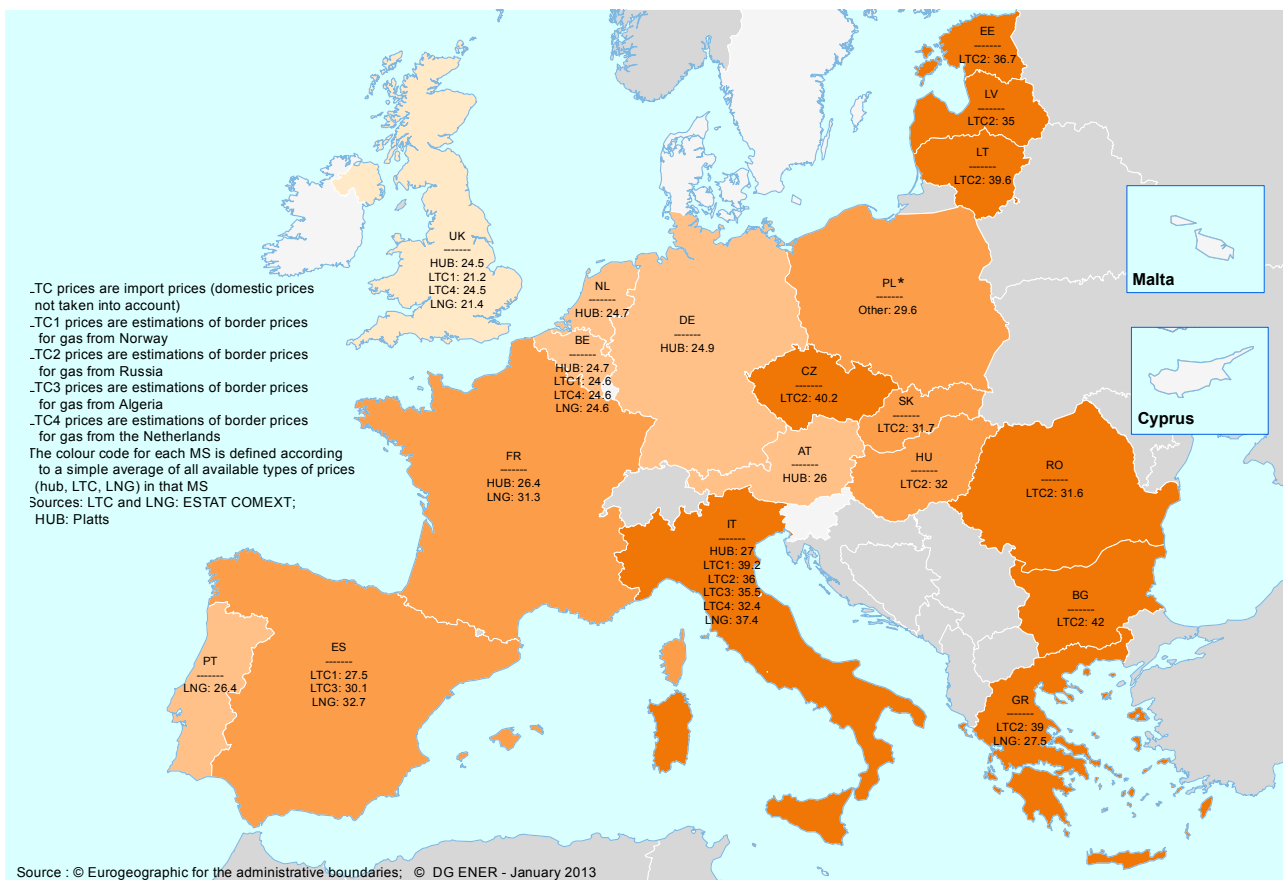


Source: Eurostat COMEXT, European Commission estimations.

- The price of LNG in Spain continues to be competitive for the EU's largest importer of LNG, and trades at levels close to the UK's NBP hub price.
- If we focus on the selection of estimated border prices for piped gas in the EU shown in the graph, we can see that there is a great deal more variation in levels and in evolution.
- Comparing the first 10 months of 2011 to the first ten months of 2012, we see the following increases: Russia to Bulgaria +38%, Algeria to Italy +24%. In contrast the average German border price increased by +17%.
- The German price is also at a much lower level than those countries just cited. The average German price for gas imports was 28.9 €/MWh in October 2012, compared to 40.5 €/MWh for Russian deliveries to Bulgaria and 37.8 €/MWh for Algerian gas to Italy.
- In addition, other than the German price, it appears that these estimated prices remain close in level to a theoretical pure oil indexed price for gas, which reached a level of 38.1 €/MWh in October 2012 (Platts NWE gas Contract Indicator).
- In contrast, when comparing the average German border price to this theoretical price, it would appear that Germans are increasingly paying a price for their gas imports which is approximating to a hub traded price for gas, and one which is increasingly less related to a pure oil-indexed price.

- Also, markets with well developed hub trading seem able to import piped gas at levels very close to hub prices. The UK and Belgium imported gas from Norway and the Netherlands at levels of around 27 €/MWh in October 2012. These countries also experienced relatively modest increases between 2011 and 2012, akin to their hub price increases, i.e: much below 10%.
- These significant increases in border gas prices alongside falls in natural gas demand are a clear illustration of the disconnect which exists in EU natural gas markets between market fundamentals and prices. One could talk of asymmetry: as demand certainly appears to be adjusting to prices but clearly, once demand has eased, prices should follow. And with around half of natural gas supply in the EU still indexed to oil, this is one major element of price inflexibility.
- In the case of imports from Russia, it is true that a number of EU gas importers have managed to get Gazprom to agree to discounts of up to 10% for many of their contracts in the last couple of years or so, and at the end of last year there was even report of a 20% discount for Bulgaria. But it appears that Gazprom's strategy has been limited to offering retroactive discounts in its existing contracts, rather than fundamental changes in the terms of its contracts, i.e: in terms of oil indexation or take or pay clause (importer take the products from supplier and pays or faces a fine).
- This is in contrast with gas supplies from Norwegian gas exporter Statoil, which is actively moving away from oil-indexation in its gas contracts, and which has been renegotiating many gas contracts with European utilities. The company has announced that it now sells just under half of its gas at oil-indexed prices, compared with around 70% in 2009, and that it projects that proportion to fall to under a quarter by 2015. This will have contributed to increased gas sales to Europe in 2012 of 10% for the company, despite falling demand in the EU (see Focus On for more details on increasing EU imports of Norwegian gas).
- With regard to new contracts however, not contract renegotiations, it appears that Gazprom is apparently quite willing to accept full spot indexation in its future gas contracts. UK firm Centrica was reported to have struck a three-year deal in September 2012 with Gazprom, which included price indexation entirely based on the NBP's day-ahead, rather than on oil indexation.

FIGURE 17 – COMPARISON OF EU WHOLESALE GAS PRICES, THIRD QUARTER OF 2012



Price in €/MWh

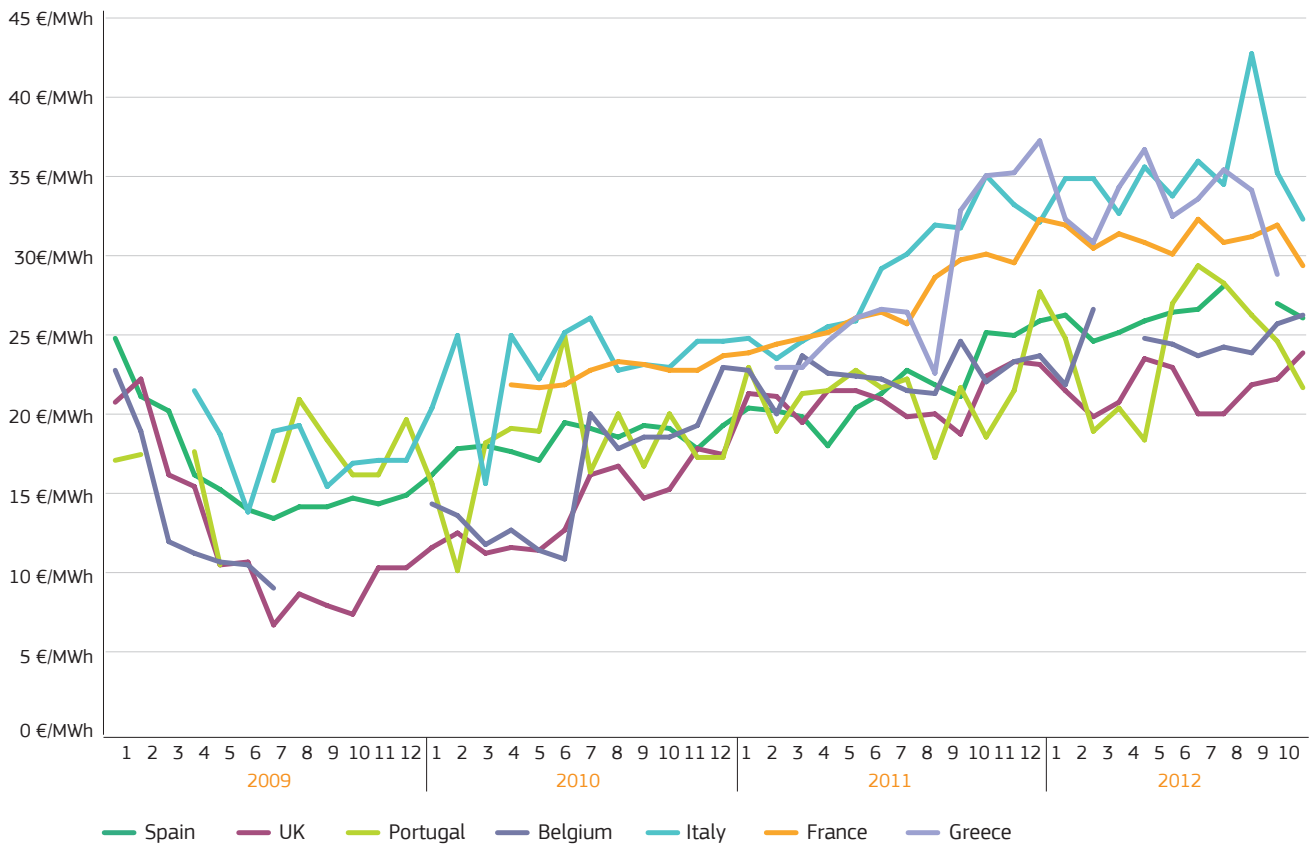
- no data
- < 24.01
- 24.01 - 28.00
- 28.01 - 32.00
- > 32.00

* Regulated prices for natural gas in Poland, net of transmission charges, as of 16.03.2012; Recipients of high natural gas (consumer group E)

5.5 LNG gas prices in the EU

- Estimated monthly average spot LNG prices in the EU in the second quarter of 2012 traded within a price range of between 22 and 35.7 €/MWh for the seven countries for which data is available. As already highlighted in the last issue, the EU's LNG importers can be split into two price groups. One group benefits from levels which are close to or at a discount to hub prices. This group contains the UK and Belgium, which by June 2012 paid relatively low amounts for LNG deliveries (respectively 20 and 23.8 €/MWh) compared to other LNG importers, which paid between 26.6 and 35.9 €/MWh.
- As with piped gas imports, there is wide variation in prices paid for LNG in the EU.

FIGURE 18 - LNG GAS PRICES IN EU MEMBER STATES

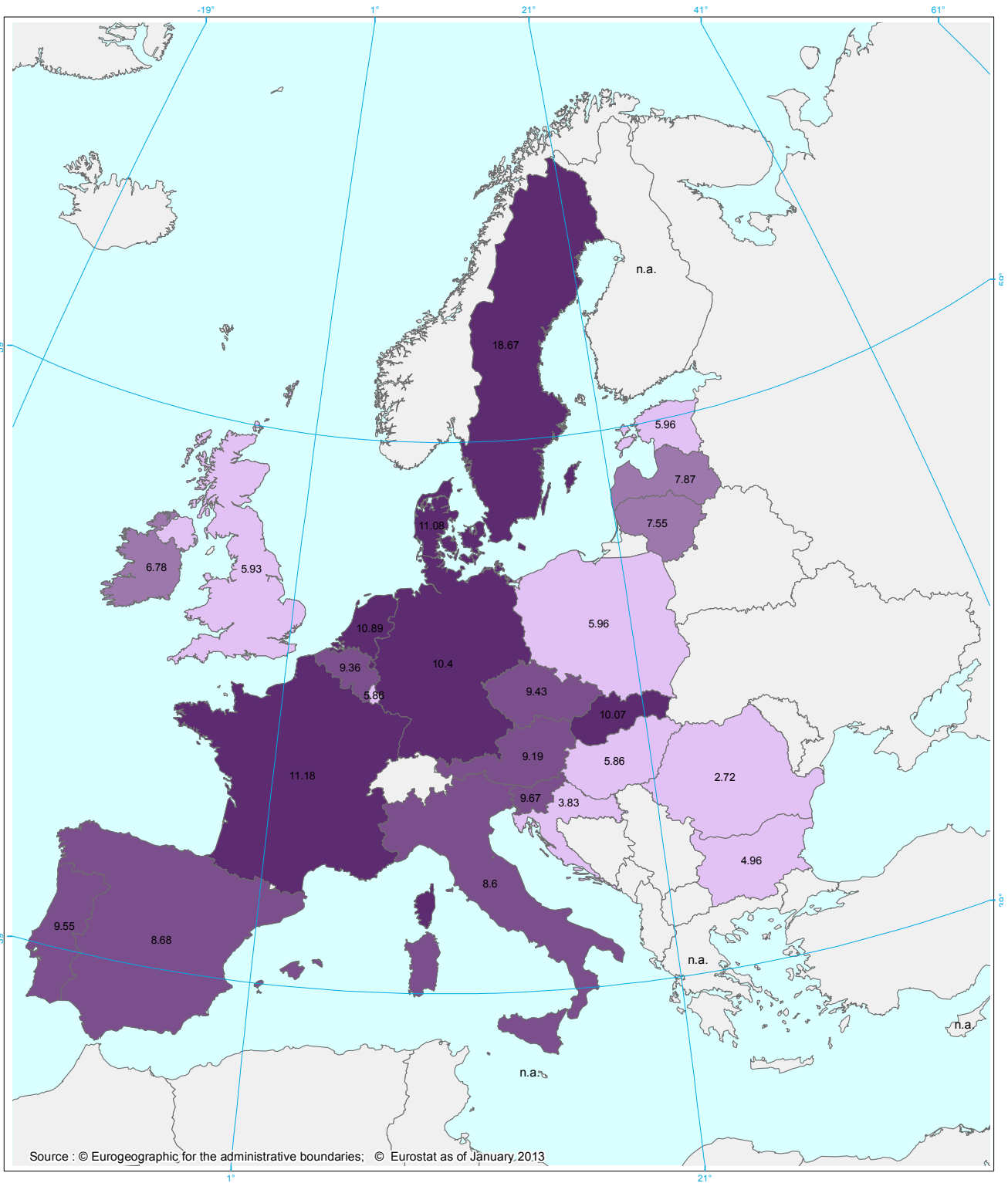


Source: Eurostat COMEXT, European Commission estimations.

6. Retail gas prices in the EU

- A comparison of retail gas prices across the EU reveals significant differences, with the prices paid in the most expensive Member States representing several times the price paid in the cheapest (even if we exclude taxes and duties).
- The gap between the highest and the lowest household retail prices for gas has been constantly increasing since 2008: for medium-sized household consumers (consumption band D2) the difference between the lowest and the highest priced country is in the order of magnitude of 4 (taxes excluded). For the smallest household consumers (consumption band D1) this difference exceeds a factor of 8 when excluding taxes (or 6 when taxes are included).
- Similarly, the gap between the highest and the lowest retail prices for industrial consumers remains. Excluding taxation, the prices paid by industrial consumers in band I3 differ by a factor of 2.8. Including taxation, this widens to a gap between the highest and lowest prices of 3.1.
- In household consumption band D2 (annual consumption up to 5.56 MWh) consumers in Romania paid the lowest prices (2.7 Eurocents/kWh with taxes), while consumers in Sweden paid the highest prices (18.7 Eurocents/kWh with taxes).
- In industrial consumption band I2 (annual consumption between 0.278 GWh and 2.778 GWh) consumers in Romania paid the lowest price (3.3 Eurocents/kWh), while consumers in Denmark paid the highest price (11.1 Eurocents/kWh).
- The fact that in both household and industrial sectors the largest differences in retail prices in different Member States are in the smallest consumption bands seems to suggest that there may exist cross-subsidisation across consumer groups and socially and politically-motivated subsidies. Cross-subsidisation distorts prices and is usually detrimental to competition.

FIGURE 19 - RETAIL GAS PRICES IN EU MEMBER STATES FOR HOUSEHOLDS, FIRST HALF OF 2012

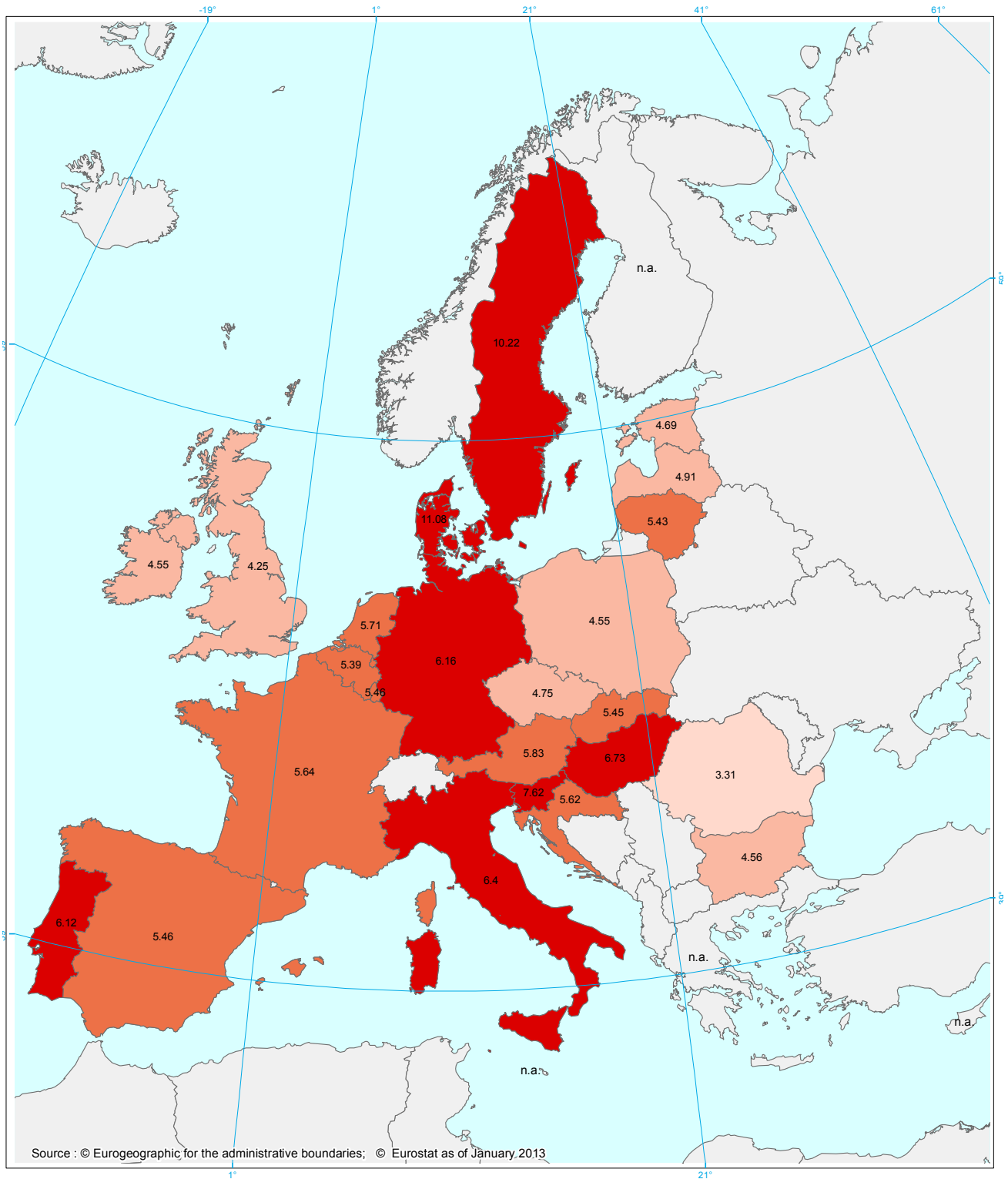


Band D1: 0 MWh < consumption < 5.56 MWh

Prices per kWh (c€)

- no data
- < 6,01
- 6,01 - 8,00
- 8,01 - 10,00
- > 10,00

FIGURE 20 - RETAIL GAS PRICES IN EU MEMBER STATES FOR INDUSTRIAL CONSUMERS, FIRST HALF OF 2012



Band I2: 0.278 GWh < consumption < 2.778 GWh

Prices per kWh (c€)

- no data
- < 4,01
- 4,01 - 5,00
- 5,01 - 6,00
- > 6,00

Focus on

“Competitive Pricing Brings Norwegian Gas Exports to the EU close to Russian Exports”

The drop in natural gas consumption in the first ten months of 2012, with consumption marking a historical low along with a return to recession in economic growth, has already been commented upon in some detail previously in this report. The comparison of different contracts of natural gas prices shown earlier in the report (Figure 16) reveals continued increases in natural gas prices over 2012 and a great deal of variation in the levels and evolution of estimated border prices.

It is against this background of weaker demand that in the course of 2012 exports of natural gas from Norway to the EU have risen to levels comparable with Russian natural gas exports.

Data on imports of natural gas from the Russian Federation and Norway is sometimes difficult to reconcile. Eurostat's database on international trade Comext contains no or patchy data on the gas import volumes from the Russian Federation and Norway for some big EU importers, such as Germany and France.

IEA statistics show that in 2011 Norway exported a total of 99 bcm. The Norwegian Petroleum Directorate production figures show that in 2012 Norway produced 114.8 bcm oil equivalent gas for sale: a 15% increase in natural gas exports on an annual basis. Of that amount, 107.6 bcm was exported to the EU, according to Gassco, the Norwegian TSO. Another source of information is the Gas Trade Flow platform of the IEA, according to which 105.8 bcm of Norwegian gas entered into Germany, France, the UK and Belgium between January and November 2012⁴.

At the same time, the volumes of Russian gas entering the EU fell by approximately 8%. According to the 2011 annual report of Gazprom, in 2011 the company exported 150 bcm to European customers, out of which 26 bcm to Turkey. A breakdown of exports by country shows that the 2011 sales to the EU amount to 122 bcm⁵; in addition, in 2011 Gazprom exported 5.25 bcm to the three Baltic states⁶. Gazprom's CEO Alexey Miller was quoted by ICIS-Heren European Gas Markets as saying that in 2012 Gazprom's exports of natural gas to Europe were equal to 138 bcm.

4. Apart from exporting to the UK, Germany, France and Belgium, producing companies on the Norwegian continental shelf have gas sales agreements with buyers in the Netherlands, Italy, Spain, the Czech Republic, Austria and Denmark. The IEA data does not cover these extra sales.

5. These numbers include sales to Austria, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Poland, Romania, Slovakia, Slovenia and the United Kingdom.

6. Gazprom does not include the sales to the Baltic states under European gas market, but lists them separately under the category CIS and Baltic states.

SUMMARY OF DATA ON EXPORTS TO THE EU

	2011	2012	y-o-y change
Norway total exports (bcm)	99 ^(a)	107.6 ^(b)	+16%
Gazprom exports to the EU (bcm, excluding the Baltic states)	122 ^(c)	112-113 (est) ^(d)	-8%

Notes: (a) source of data: IEA. 2012. Key world energy statistics

(b) source of data: Norwegian Petroleum Directorate 2013, Gassco

(c) source of data: Gazprom website. Data excluding the Baltic states

(d) source of data: ICIS Heren 2013 based on the announcement of Alexei Miller on Gazprom's 2012 exports to foreign countries. No data for the Baltic states

There are a number of likely explanations for this evolution.

Norwegian companies have been actively changing their pricing policy. Torgrim Reitan, CFO of the Norwegian producer Statoil that controls 75% of Norwegian exports, was quoted by ICIS-Heren in October 2012 as saying that the company has concluded the renegotiation of some half of its contracts. New Statoil contracts are also being negotiated purely on a spot indexation basis, such as the November 2012 ten year deal with German firm Wintershall - the natural gas unit of chemicals firm BASF - which is spot-indexed mainly to the NCG and GASPOOL hubs. The contract is for a total of 45bcm, equal to more than 6% of Germany's annual gas consumption. These developments are pointing to a fundamental change in the way traditional natural gas exporters to Europe are pricing their product.

In addition, in January 2013 Norway's Ministry of Petroleum and Energy submitted a proposal to reduce the tariffs for transport and treatment of new gas volumes from the Norwegian shelf. This will reduce the cost of extraction companies in Norway, possibly facilitating more exploration, development of more discoveries and further measures on existing fields. Bloomberg have reported that the cuts could be by as much as 90% on the original fees.

In Russia, changes appear to have been less radical. In its 2011 annual report, Gazprom maintains that the oil price link is indispensable for long-term business planning. At the same time, as reported by Reuters, Gazprom has offered a number of discounts in its long-term prices in 2011 and 2012 to a number of companies. In its 2011 annual report Gazprom announced agreements to adjust pricing conditions with Italy's Edison and Sinergie Italiana, France's GDF SUEZ, Germany's WIEH and Win-gas, and Slovakia's SPP. In 2012, agreements on contract price revision were signed with Austria's EconGas, Centrex and GWH Gashandel, Italy's Eni, Germany's E.ON Ruhrgas, Netherlands' GasTerra, and Poland's PGNIG. In accordance with these agreements, contract price formulas with oil indexation were adjusted.

Furthermore, Gazprom's officials were quoted by Reuters as saying that the company had set aside 4.4 billion USD for 2012 refunds and eventually paid out 2.7 billion USD. Reuters further quotes Gazprom officials as expecting to refund 4.7 billion USD in 2013.

The recent developments show that for the moment Norwegian producers are adapting faster to the new gas market conditions than other exporters. By changing the price setting mechanism to gas-on-gas they have been able to retain consumers and indeed increase their market share to the detriment of other exporters such as the Russian Federation and Algeria. At the same time, recent announcements on refunds following agreements on contract price revision seem to suggest that Gazprom is offering price discounts on its existing contracts without fundamentally changing the pricing mechanism.

Yet, with gas exports hitting record levels, Norway is approaching full utilisation of its pipelines (transport capacity of the Norwegian pipeline system is 120 billion Sm³ per year). Further export growth of Norway may thus depend on transport capacity, including LNG terminals, and fields coming online.

