European Gas: liberalisation, competition and security of supply

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Professor Jonathan Stern

Director of Gas Research

Oxford Institute for Energy Studies

Two Separate but Related Agendas for European Gas

LIBERALISATION AND COMPETITION:

- The EU Directive(s)
- Competition rules/merger policy
- Mergers and market concentration

SECURITY OF SUPPLY:

- Supply/demand – gas and power
- Import dependence
- Long term contracts
- EU draft Security Directive

Are these agendas compatible?
Under which market conditions?

The EU Legislative Process on Liberalisation and Security

LIBERALISATION:

- July 1998: "Common Rules" Gas Directive (following electricity) is passed; gas market opening becomes mandatory in August 2000
- July 2003: Common Rules "Acceleration" Directive came into force

SECURITY:

- January 2001: Green Paper on Energy Security published
- August 2002: Commission proposes Security of (oil and) Gas Supply Directive

Most Significant Barriers to Competition and Liberalisation - 2003

- Unequal level of market opening
- Inappropriate tariff structures and unexplained disparities in access terms
- Lack of transparency in access availability (national and cross-border); rigid capacity reservation and high costs
- Unnecessarily stringent balancing regimes involving overly high costs
- Concentration of gas production and imports in a few hands; consequent slow development of hubs

Progress has been significantly slower in gas than in electricity

Legal and Actual Market Opening in 2002

	% Legally Eligible	Large Users % switched	Small Users % switched
Austria	100%	<2%	<2%
Belgium	59%	N/a	Ineligible
Denmark	35%	2-5%	Ineligible
France	20%	20-30%	Ineligible
Germany	100%	<2%	<2%
Ireland	82%	20-30%	Ineligible
Italy	96%	10-20%	2-5%
Japan	40%	5-10%	Ineligible
Neth'ds	60%	30-50%	Ineligible
Spain	79%	20-30%	Ineligible
Sweden	47%	<2%	Ineligible
UK	100%	>50%	30-50%

The 2003 "Acceleration" Gas Directive

MAIN PROPOSALS

- Acceleration of market opening:
  - all non-residential customers - July 2004
  - residential customers: July 2007
- Fixed or approved tariffs set by a competent and independent regulatory authority
- "Legal Unbundling" of transmission and distribution networks:
  - creation of system operators (TSOs and DSOs) independent from the integrated gas business
  - separation of transmission networks from supply - 2004; distribution networks - 2007
- Regulated or negotiated access to storage and equivalent flexibility instruments

Response to the problems of implementing the 1998 Directive

EU Competition Rules - issues

- **Long term (oil indexed) take or pay contracts**
- **Joint sales (purchase) arrangements/ consortia**
- **Territorial sales restrictions (destination clauses)**
- **"Profit-splitting" (profit sharing) mechanisms**

Issues were all "re-examined" as a result of: merger activity, in the context of facilitating liberalisation and competition

Long term take or pay (oil-indexed) contracts

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May have the effect of reducing the numbers of players in a market by:

- Pre-empting a large market share by selling large volumes
- Erecting barriers to entry to smaller players thereby
- Lessening the likelihood of gas to gas competition

In 2003, EU Commission declared long term contracts "compatible and essential" if they do not have anti-competitive effects; but recall there are two types of long term contracts: gas and capacity

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Joint Sale/Purchase Arrangements

- Restrict the ability of market players to negotiate different – short term, more competitive terms - and therefore promote market concentration
- Norwegian GFU judged to be a “cartel” under Article 81 of the Treaty (via the EEA Agreement)
- DUC Consortium broken up

LARGELY RESOLVED

Territorial Sales Restrictions (destination clauses)

- Against the Internal Market therefore incompatible with European law
- “Profit-splitting” (profit-sharing) mechanisms also incompatible

BY END-2003, LARGELY RESOLVED (EXCEPT FOR ALGERIAN LNG CONTRACTS)

European Gas Companies: impact of legal unbundling since 2000

COMPANY	CURRENT STATUS
SNAM extinct!	Network company is Rete Gas, ENI G&P and power companies share market
RUHRGAS	Now part of E.ON; Ruhrgas Transport is network company
GASUNIE	Network company is Gastransport Services; sales to be divided (?)
DISTRIGAS	Network company is Fluxys
GAS NATURAL	Network company is Enagas; market shared with power companies/others
GAZ DE FRANCE	Network to be separated; partial privatisation in 2004 (?)

Former British Gas broke up in 1997

Consolidation into Multi-Energy Pan-European "National Champions"

- E.ON and RWE in Germany
- EdF and GdF in France
- ENI Gas and Power, and Enel in Italy
- Gas Natural and Endesa/Iberdrola/Union Fenosa in Spain

National Champion model ensures market concentration and protection from competition but is supported by many (most?) Continental European governments

AND SO: HOW MUCH COMPETITION AND LIBERALISATION WILL HAPPEN???

Security Issues for European Gas Markets

- Resource adequacy
- Supply adequacy/supply gap
- Long term contracts
- Financing multi-billion dollar infrastructure
- Import and transit dependence
- Producer/consumer dialogue
- Directive on gas security

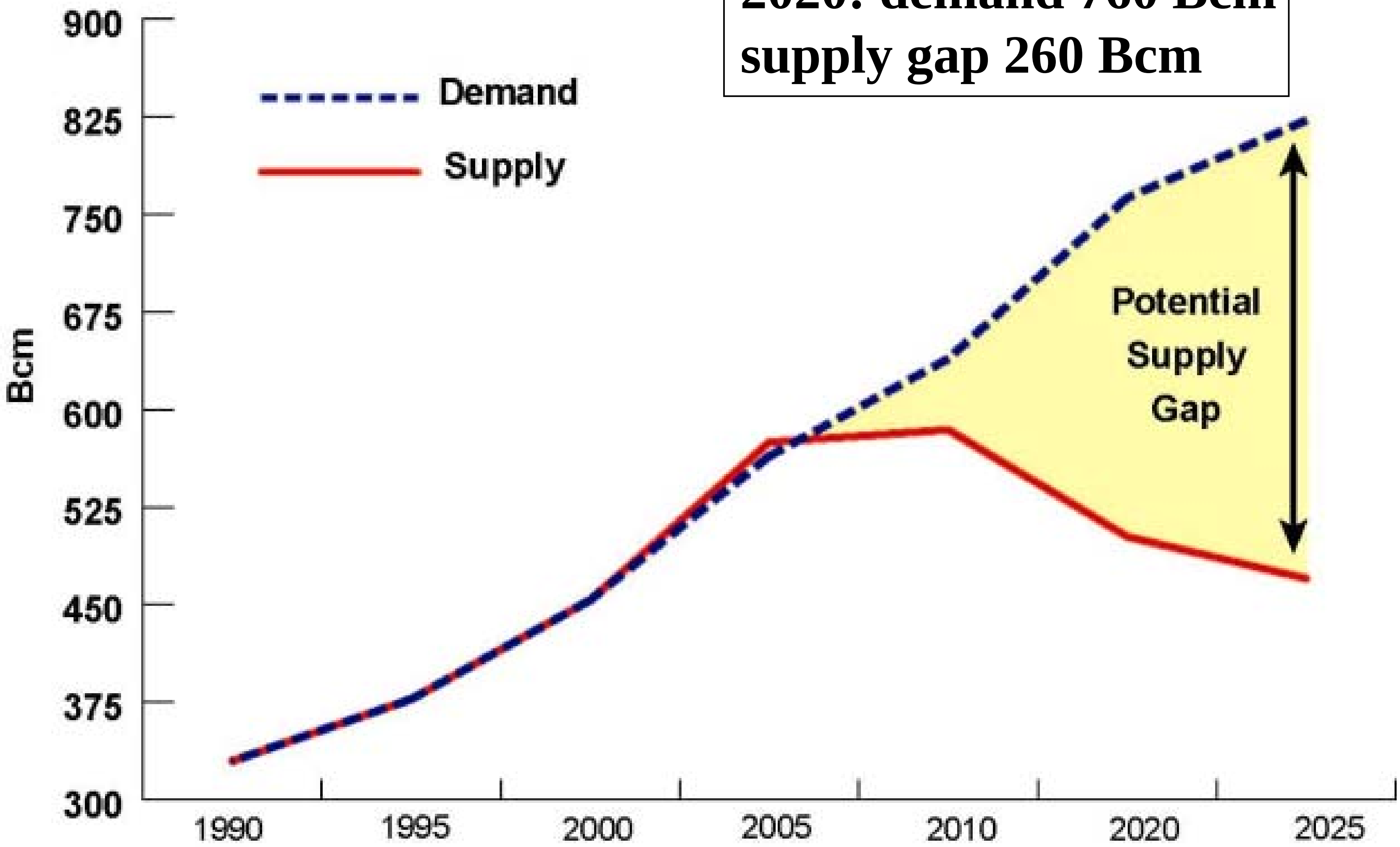
Power generation is the big issue for supply/demand/price and security

Resource Adequacy: proven reserves 1981-2001 Tcm (R/P Ratios)

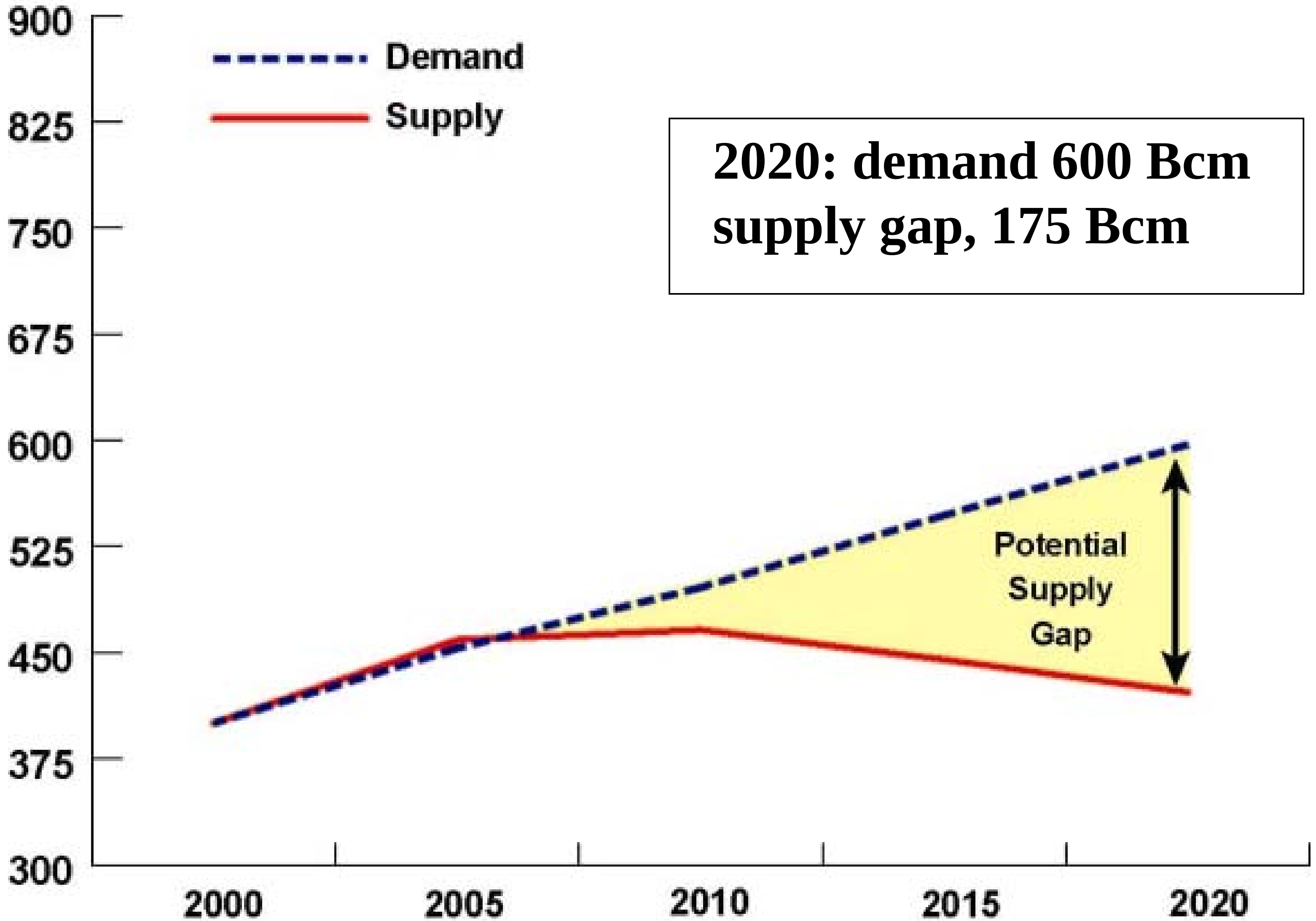
	1981	1986	1991	1996	2001
UK	0.7 (16)	0.6 (13)	0.5 (9)	0.8 (8)	0.7 (6)
Neth's	1.6 (17)	1.8 (25)	2.0 (24)	1.8 (20)	1.6 (22)
Germ'y	0.2 (10)	0.2 (12)	0.2 (12)	0.2 (10)	0.3 (12)
Italy	0.2 (14)	0.2 (18)	0.3 (20)	0.3 (15)	0.2 (12)
Norway	1.3 (45)	2.2 (82)	2.3 (81)	3.0 (70)	3.8 (71)
Algeria	3.2 (71)	3.0 (57)	3.3 (55)	3.7 (49)	4.5 (54)
FSU	31 (68)	38 (58)	55 (66)	57 (77)	56 (77)

European Gas Supply/Demand to 2020 (conventional wisdom)

2020: demand 760 Bcm
supply gap 260 Bcm



European Gas Supply/Demand to 2020 (low power generation)



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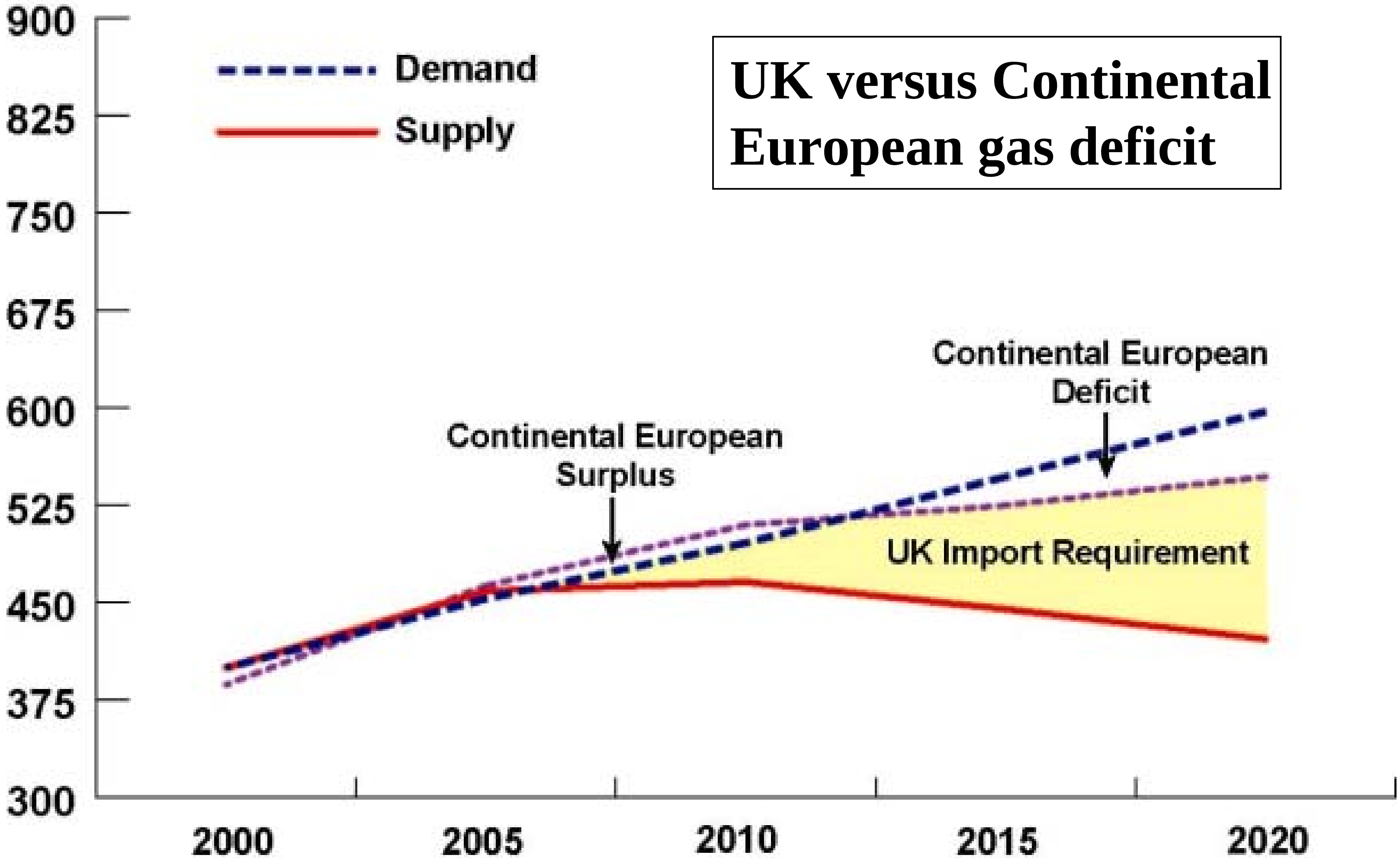
European Gas Supply/Demand to 2020 (low power generation)



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Supply Adequacy: a security problem?

"Running out of gas" in 10-20 years time is not a <u>security</u> problem for Europe

If **insufficient supply is available to meet demand (which seems unlikely) then gas prices will go up substantially which will mean that:**

- **gas-fired power generation will not be built**
- **consumers will switch to other fuels or make**
- **greater efficiency savings**

Insufficient gas – if it means switching to coal – would be a <u>carbon</u> problem

Power Generation: the big issues

IF GAS-FIRED GENERATION IS *NOT* BUILT THEN WHAT IS THE MAJOR SOURCE OF NEW-BUILD POWER IN EUROPE?

- **coal - controls/CO2?**
- **renewables - competitiveness?**
- **nuclear - competitiveness/acceptability?**

IF GAS FIRED GENERATION *IS* BUILT THEN:

- **will gas security problems impact on electricity security?**

Gas-fired power generation: good, bad or neutral for security?

Long Term Contracts in Liberalised Markets

***Traditional* long term contract elements:**

- **10-25 Bcm per annum, 15-25 year term**
- **High (>80%) take or pay**
- **Oil-linked price with lags to avoid volatility**

***New* long term contract elements:**

- **3-8 Bcm per annum, 8-15 year term**
- **Lower take or pay (trading makes this less relevant)**
- **Price linked to spot/futures gas price or other relevant market indicator**

"New" long term contracts will be dominant in liberalised European markets for many years

Financing multi-billion dollar investments without *traditional* long term contracts

- Up to ~$2bn gas is no different to oil refineries, car plants, etc
- But above $5bn, and especially above $10bn, gas is different

In liberalised markets, special measures/exemptions may be necessary for new infrastructure

Exemptions for New Infrastructure Projects

Under Article 22 of the 2003 “Acceleration” Directive, projects may receive time-limited exemptions from access conditions from EU and national energy and competition regulators if they:

- enhance competition and security
- would not go ahead without an exemption
- have ownership legally separate from the main system operator
- levy charges for the use of the infrastructure
- are not detrimental to EU or national competition or regulation

All UK interconnectors and LNG projects likely to be granted exemptions

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Shtokman and the Baltic (North European) Pipeline $15-20 bn

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European Import Dependence, 2000: an established phenomenon

	EURO 33*	EU15
100 % dependent	12	4
>95% dependent	7	3
20-83% dependent	9	5
Self-sufficient/ net exporters	5	3

*EU+other continental European countries, including Baltics, excluding other FSU countries

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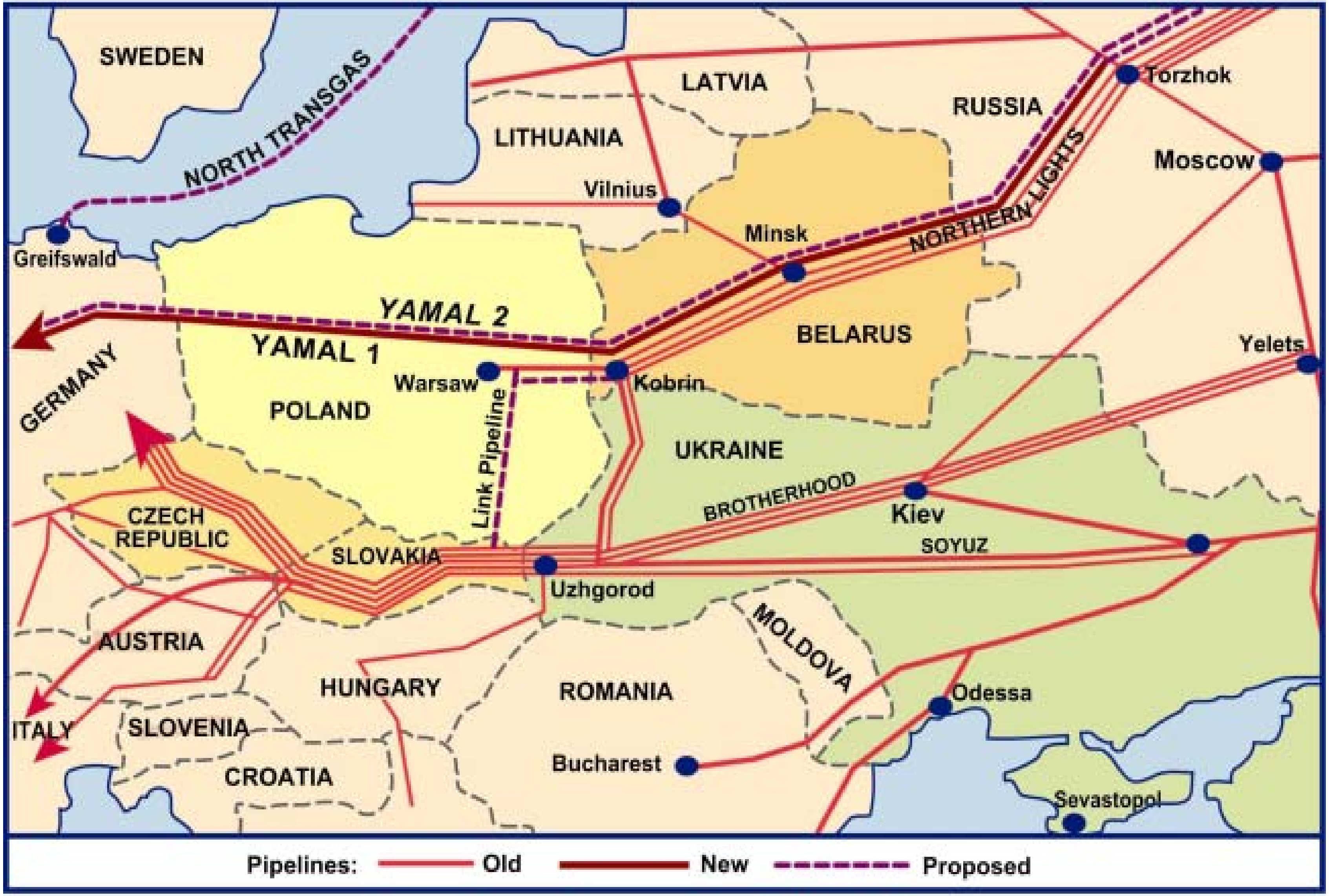
Transit Routes: Central/Northern Europe



Producer/Consumer Dialogues Between EU and (Oil and) Gas Suppliers

- EU-Russia "Energy Partnership" 2001 – NEP/Shtokmanovskoye is named as a potential cooperation project
- Association Agreement with Algeria EU-Mediterranean Free Trade Agreement to be signed by 2010
- EU agreement/dialogue with Caspian countries under way

EU-Russia Dialogue to serve as a "template"

Proposed EU Security Directive: "Safeguarding Security of Gas Supply"

OBJECTIVES:

- Define responsibilities of market players
- Implement procedures to safeguard household customers in the event of:
  - a partial disruption of supplies
  - extreme cold during peak demand period
  - high gas demand on a 1:20 winter
- Establish a Gas Coordination Group (chaired by the Commission) to coordinate national measures in the event of a major supply disruption

Still under discussion

Conclusion: compatibility of agendas?

COMPETITION needs many players but growing concentration of the industry:

- **mergers and alliances**
- **determination of governments to create European-wide “national champions”**

means small number of mega-companies

LIBERALISATION means cost-cutting and risk-taking but strong re-emergence of a security agenda could involve:

- **command and control (rather than market) measures**
- **additional – potentially costly – measures**

which may undermine cost-reduction effects of liberalisation

Contradictory agendas make for uncertainty

Market/Price Uncertainty

- New dominant companies are multi-energy giants looking to build new gas-fired power generation
- New gas-fired power generation needs lower gas prices
- Lower gas prices can be achieved through gas/gas competition
- But suppliers – especially non European suppliers – are against gas/gas competition

European gas short/medium term outcomes:
1. If (when?) liberalisation and serious gas to gas competition arrive driven by gas surplus, prices will fall;
2. Serious security incident could undermine competition/liberalisation