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Threats to EU Security of Oil Supplies- a Critical Analysis

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Potential Threats to Security of Oil Supplies

- Resource Nationalism
- Political Instability
- Export restrictions:
 - Export taxes
 - Domestic pricing
- Armed conflict:
 - Interstate War
 - Civil (Intrastate) Wars
 - Violent Non-State Actors



Conclusions on Resource Nationalism and Political Instability

- The discussion and analysis conducted in the project has shown that there is no easy and immediate connection between resource nationalism and/or political instability, and global supply of oil and gas.
- This is not because political developments are irrelevant for influencing oil and gas supplies, but because this influence is highly variable and unpredictable.
- Political instability and resource nationalism have been shown to have rarely been associated to acute supply crises or shortfalls. Their effect is rather gradual and normally compensated by action in other parts of the system.



Conclusions on Armed Conflicts

- Oil and gas installations appear to be much more resilient to armed conflict than is normally acknowledged
- Interstate wars are a low-probability event; they are generally confined to two main belligerents and contained
- Civil wars or violent action on the part of non-state actors are phenomena whose frequency has not diminished at the global level
- Cases in which violent action on the part of non-state actors has inflicted significant damage to existing installations include the “insurgency” phase in Iraq and MEND in Nigeria
- If oil installations are in remote or inhabited locations, the cost-benefit balance of attacking oil installations is considerably worse for the non-state actor
- However, it is very obvious that a government’s inability to overcome or reabsorb violent opposition discourages international oil company investment even if the violence does not affect the vicinity of oil and gas installations.



Threats to Logistics: Chokepoints

	EIA	EC Green Paper	IEA
Hormuz	X	X	X
Malacca	X	X	X
Bab el Mandab	X	X	X
Panama Canal and Pipeline	X	X	
Suez Canal and Sumed pipeline	X	X	X
Turkish Straits	X	X	
Baltic Sea		X	

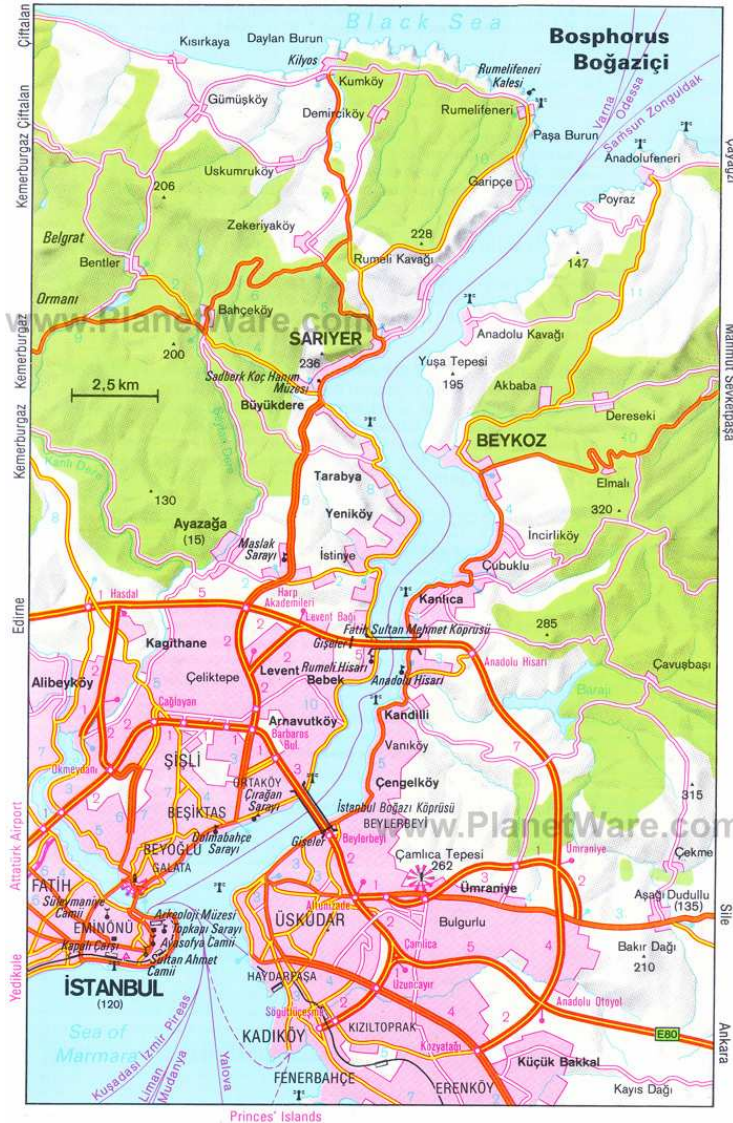


Threats to Logistics: Broader View

- The SECURE project analysis has shown that oil shipping may be subject to attacks or accidents even in the high seas, not only at chokepoints
- The issue exists and requires further measures to more closely monitor tanker traffic
- That said, we believe something needs to be done to address growing tanker traffic through the Turkish Straits and the entrance to the Baltic



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Total Tanker Passages		
	Bosphorus	Canakkale
1996	4248	5658
1997	4303	6043
1998	5142	6546
1999	5504	7266
2000	6093	7529
2001	6516	7064
2002	7427	7637
2003	8107	8114
2004	9399	9016
2005	10027	8813
2006	10153	9567
2007	10054	9271
2008	9303	8758



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The narrowest point of the İstanbul Strait







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Acute Danger of Accidents

- The danger of accidents in the Turkish and Baltic Straits has long been recognised
- The international regime for the Turkish Straits dates back to 1936
- Passage through the Straits is for free, which undermines any by-pass alternative
- By-passes will be commercially attractive only if there is some cost for using the Straits



No agreement on a preferred alternative

- Three main alternative projects are being promoted in competition:
 - Bourgas-Alexandroupolis
 - Samsun-Ceyhan
 - Constanta-Trieste
- The first two are ship-pipe-ship projects, the latter is a ship-pipe-pipe project
- Priority should go to the implementation of any one or two of the three



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Conclusions

- Maritime logistics are unlikely to generate major crises, but require constant attention
- Patrolling and surveillance of maritime traffic is essential
- Investment to reduce pressure on key choke points (Bosphorus, Danish Straits) is essential
- Investment to reduce traffic in enclosed seas is highly advisable
- Stabilisation of the oil/tanker market is an important component of oil supply security



Volatile, unpredictable prices

- Energy security is primarily a function of investment
- Investment in a market economy is a function of the expected revenue stream, which in turn is a function of prices
- A well-functioning market is therefore a key component of security
- The main obstacle to oil and gas security of supply is the growing volatility of prices and their fundamental unpredictability
- Security itself is also dependent on prices. Customers feel secure if they can buy all the energy they need at prices that they can afford



Causes of volatility

- Structural causes of volatility
 - Demand and supply rigid to price
 - The impact of unconventional oil and EOR
- Faulty design of oil market
 - Major oil streams not available for trading
 - Inadequacy of benchmarks
- Vicious circle of volatility and speculation



Establishing a Russian Oil Market

- The Russian Federation is ideally positioned to establish a transparent, pipeline-based physical oil market
- The Transneft pipeline system receives crude oil from several producers and connects directly into major European refineries
- The platform would be further enhanced with the implementation of the Constanta-Trieste pipeline, offering further flexibility in flows and quality management



Policy Proposals

- Encourage the freer trading of major crude oil streams, notably those from Russia and the Gulf
- Establish a transparent Russian Oil Exchange to generate a physical-trade based price signal
- Increase reliance on long term pricing
- Enforce an internationally agreed price band
- Increase oil storage capacity in proximity to market and establish an oil lending window
- Offer demand security through take or pay contracts
- Encourage vertical integration



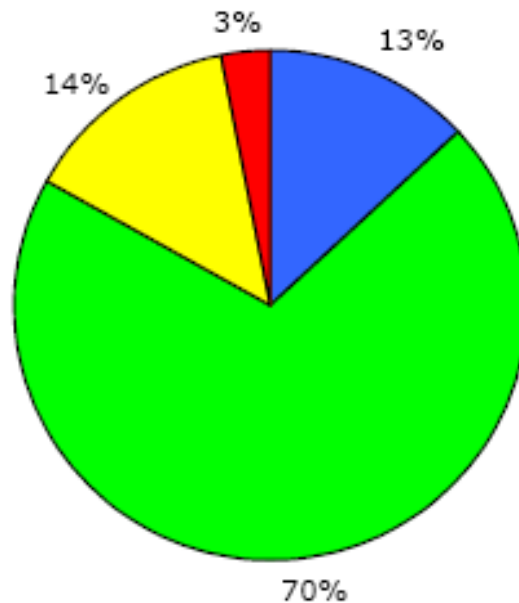
Oil products: impacts of refinery localisation and evolving oil product specifications

- We may get the oil, but... can we get the products?
- Crude oil is not of uniform quality
- The product slate depends on refinery complexity
- Tight product specifications make the task more difficult
- Europe: excessive dieselisation?



European Refinery Configuration 2009

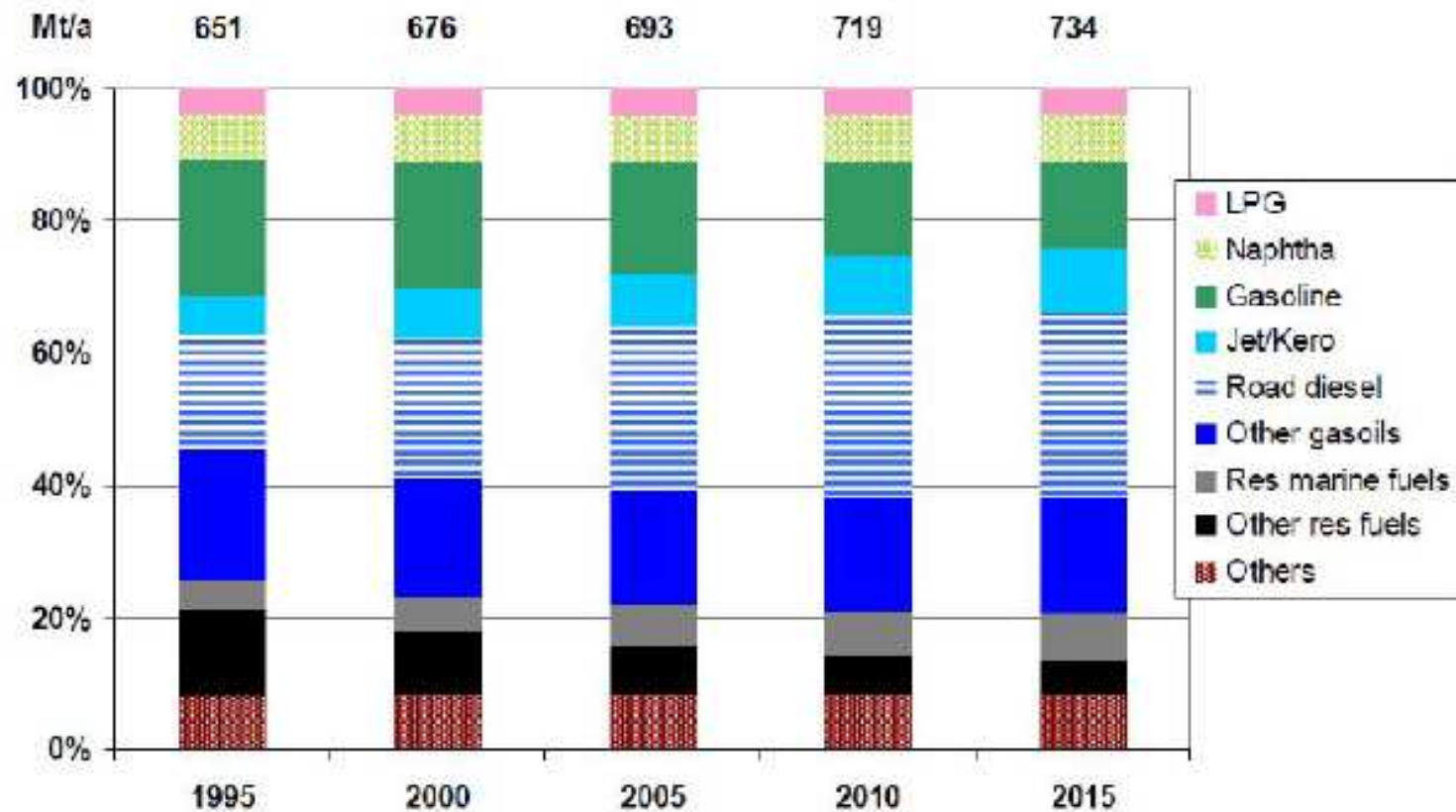
■ Coking ■ Cracking ■ Hydroskimming ■ Topping



The European refining industry has at present 128 refineries with a combined capacity of 17.3 million b/d. The problem with present European refinery configuration, which may result in a 2mb/d decline in refining capacity, is that existing refineries are either too small (below 60kb/d) or not sufficiently complex in their ability to upgrade residual fuel oil into light and middle distillates



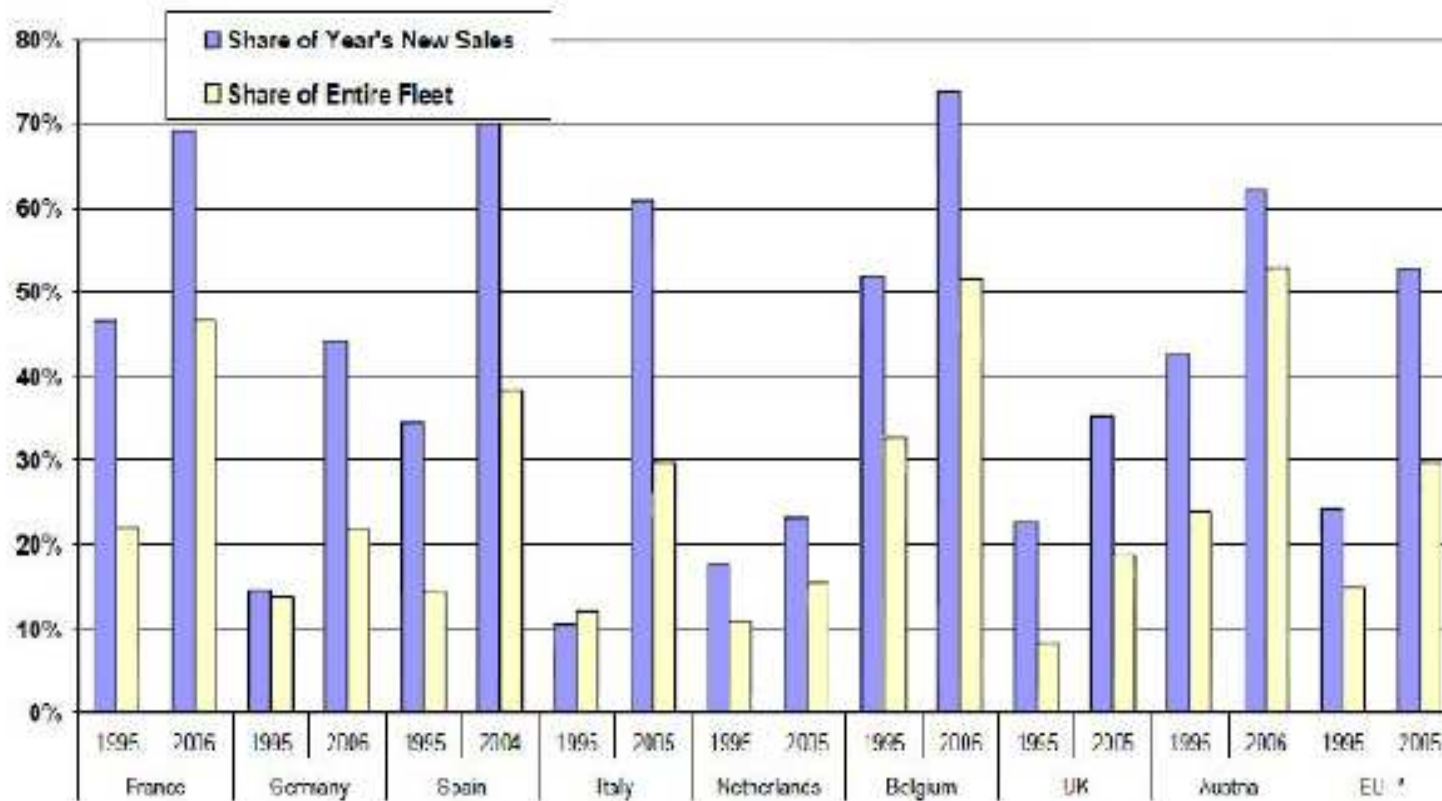
Figure 7: Historical and forecast product demand (EU-27)



Source: Medium Term Oil Market Report, IEA, 2009



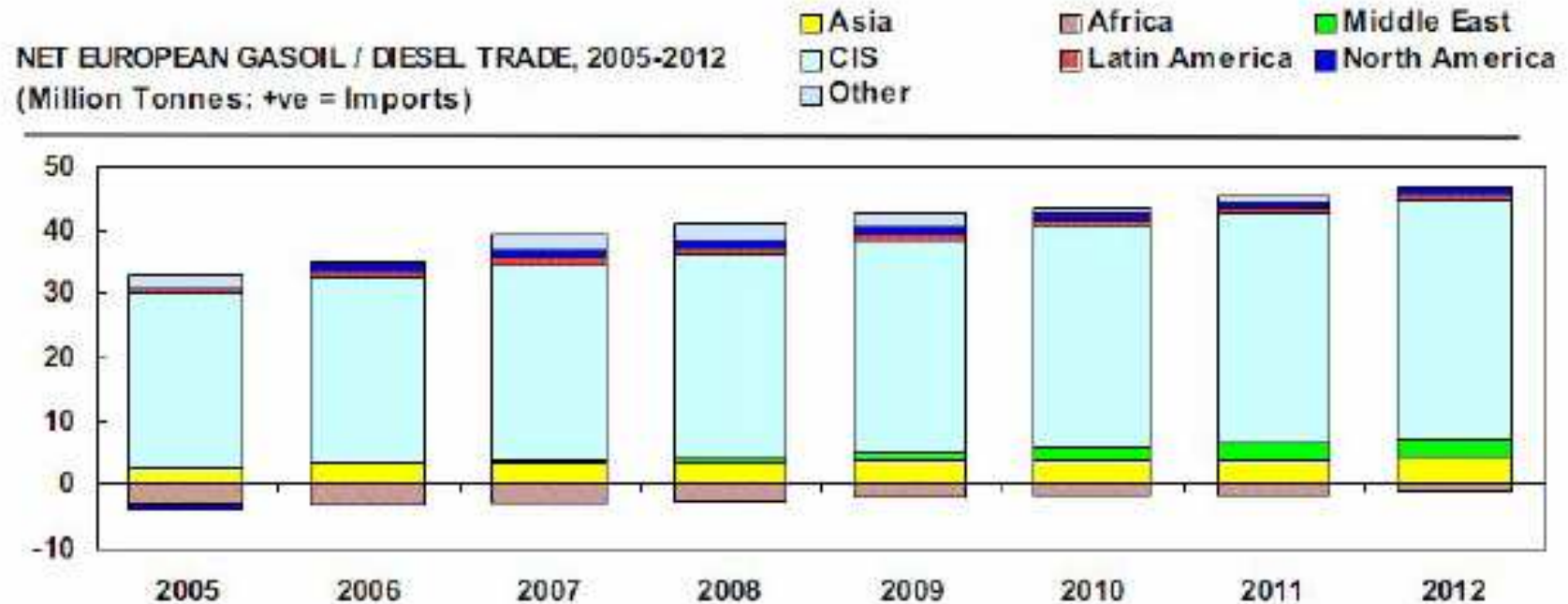
Figure 8: Share of diesel cars/SUVs in each country's new sales and entire road fleets, 1995 and 2005/6.



Source: Gasoline and Diesel Demand in Europe, Institute for Advanced Studies Vienna, 2007



Figure 14: Net European Gasoil/Diesel Trade 2005-2012



Source: Purvin & Gertz



Conclusion – mitigation measures

- International alignment of products standards
- Diversification of imports
- Reduction of differential in taxation
- Greater coordination between industry and legislators
- Biofuels, including imported, or GTL