

A Time Of Challenge

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OUTLINE

- A Time of Challenge
- A New Global Psychology
- Linkages
 - Geopolitics - Economy - Oil
- Global Balances
- Global Demand Factors
- Global Supply Factors
- Price Prospects
- US Demand & Supply



A Time Of Challenge

- **Very easy to throw up your hands**
 - Everything changed on Sep. 11.
 - History is no help.
 - What's next from terrorist/anti-terrorist?
- **Unprecedented need for assurances**
 - Build confidence in efforts, not just answers
 - Need to be open, responsive, and prudent



Psychology & Market Behavior

- Serious impacts on:
 - Opec
 - Consumers
 - Major oil companies
 - Midstream/downstream
 - Traders
 - Politicians



OPEC

- **Hamstrung by competing concerns**
 - concern for the global economy
 - concern for oil market stability
 - concern for supply vulnerability
 - concern for image
- **But with considerable flexibility**
 - high level of spare capacity
 - alternative routes out of the Gulf
- **Iraq as a wildcard**



Consumers

- Consumers driving most economies
- Already less-than-healthy pre-Sep.11
- Confidence has been pummeled
- "Fear of flying" a major impact
- Unemployment fears, wealth effects damage spending



Major Oil Companies

- Security concerns about installations
- Concerns about image
 - large contribution
 - public service/sympathy ads
 - questions on operations in suspect countries
- Concerns about liability
 - jet fuel
 - dealer gouging



Refiners, Pipelines, Retailers

- Refiners squeezed between weak demand and crude supply risk
- Need to ensure heating oil supply
- Need to reconfigure away from jet
- Concerns about facilities security
- Strong reactions to retail "gouging"



Traders and Investors

- Impact of Nymex closure
- Brent market vulnerability
- Margin calls on equity holdings
- High volatility, but "traders will trade"
- "Buying = patriotism" limited impact

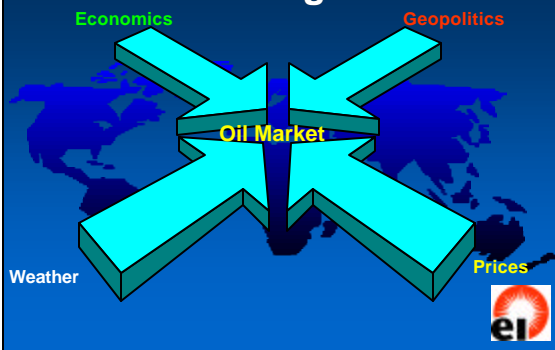


Politicians

- Increased mandate and leverage to act
- Reduced partisanship
- But procedural delays, old divisions
- Energy legislation chances improved?
- Military, economy will take precedence



Linkages



Market Linkages



Global Supply & Demand “Crises”

Supply Crises

- 1973-1974 Arab oil embargo
- 1979-1980 Iranian revolution
- 1980-1981 Iran-Iraq War Start
- 1990-1991 Gulf War

Demand “Crises”

- 1975-1978 Post-embargo recession
- 1982-1985 Price shock II reaction
- 1997-1998 Asian financial crisis

2001?



GLOBAL BALANCES



Global Oil Balances

| million b/d | 2Q01 | 3Q01 | 4Q01 | 1Q02 |
|--------------------|-------|-------|-------|-------|
| World Oil Demand | 75.65 | 75.56 | 76.42 | 76.94 |
| Non-Opec Supply | 45.70 | 46.33 | 47.55 | 48.02 |
| Opec NGLs | 2.87 | 2.86 | 2.90 | 2.91 |
| Call on Opec Crude | 27.08 | 26.37 | 25.97 | 26.01 |
| Opec Production | 27.28 | 27.39 | 25.94 | 26.22 |
| Stock Change | 0.20 | 1.02 | -0.03 | 0.21 |

Source: Energy Intelligence Group



OPEC Production

- **Competing risks**
 - risks to prices of being over quota
 - risks to the economy of high prices
- **Current OPEC10 quota 23.2 million b/d**
- **September production 1.4 mb/d over**
- **Iraq output seen at risk**
 - political issues
 - commercial issues
 - physical issues



OPEC Production Outlook

| Opec Production | | | | |
|------------------|-------|-----------|-------|-------|
| million b/d | 2Q01 | 3Q01 | 4Q01 | 1Q02 |
| Total Opec Crude | 27.28 | 27.39 | 25.76 | 26.22 |
| Iraq | 2.32 | 2.46 | 1.85 | 2.15 |
| Opec 10 | 24.96 | 24.92 | 23.91 | 24.07 |
| Opec 10 Quota | 24.2 | 24.2/23.2 | 23.2 | 23.2 |

Source: Energy Intelligence Group



Year-on-Year Changes In Global Oil Demand

| million b/d | 3Q01 | 4Q01 | 1Q02 |
|-----------------------|--------------|--------------|--------------|
| North America* | -0.41 | -0.58 | -0.22 |
| United States | -0.03 | -0.14 | 0.18 |
| Can/Mex | -0.38 | -0.44 | -0.39 |
| Total Europe | -0.17 | -0.33 | -0.06 |
| Pacific | -0.35 | -0.22 | -0.11 |
| Japan | -0.22 | -0.15 | -0.08 |
| Korea | -0.10 | -0.05 | -0.02 |
| ANZ | -0.03 | -0.02 | 0.00 |
| Total OECD | -0.93 | -1.12 | -0.38 |
| Soviet Union | -0.51 | 0.06 | 0.07 |
| China | -0.23 | -0.07 | 0.09 |
| Others | 0.73 | 0.13 | 0.20 |
| Non-OECD | -0.01 | 0.12 | 0.36 |
| Total World | -0.95 | -1.00 | -0.02 |

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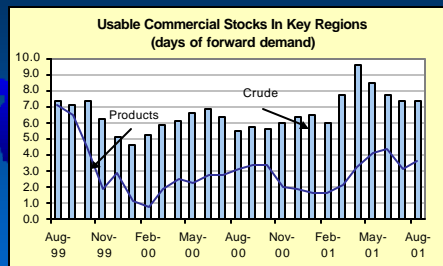


Global Inventories

- S/D in synch prior to Sep. 11
- Stocks still tight in Q3, but set to build
- Crude and product stocks uneven
- Y2K, cold winter, gas-to-oil switching make comparisons w/ 2000 tricky
- Emergency stocks available



Global Inventories



GLOBAL DEMAND FACTORS



Downside Risks to Demand

- Worsening economics
- Lower natural gas prices
- Mild weather
- Early gas oil buying in Europe
- Global collapse in jet fuel use



Upside Demand Factors

- Lower consumer prices
- Travel mode shift to cars
- Continued diesel strength
- Spurt in military fuel demand
- Oil producer demand growth



Global Oil Demand


| million b/d | 2Q01 | 3Q01 | 4Q01 | 1Q02 |
|-----------------------|--------------|--------------|--------------|--------------|
| North America* | 23.77 | 24.06 | 23.91 | 23.99 |
| United States | 19.56 | 19.99 | 19.85 | 19.98 |
| Can/Mex | 4.20 | 4.07 | 4.06 | 4.01 |
| Total Europe | 14.64 | 14.99 | 15.13 | 15.01 |
| Pacific | 7.99 | 7.99 | 8.59 | 9.33 |
| Japan | 4.97 | 5.19 | 5.48 | 6.02 |
| Korea | 2.00 | 1.85 | 2.13 | 2.29 |
| ANZ | 1.03 | 0.95 | 0.98 | 1.02 |
| Total OECD | 46.40 | 47.05 | 47.63 | 48.32 |
| Soviet Union | 4.43 | 3.96 | 4.53 | 4.29 |
| China | 4.93 | 4.71 | 4.67 | 4.52 |
| Others | 19.89 | 19.85 | 19.59 | 19.80 |
| Non-OECD | 29.24 | 28.52 | 28.79 | 28.61 |
| Total World | 75.65 | 75.56 | 76.42 | 76.94 |

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Quarterly Changes In Global Oil Demand


| million b/d | 3Q01 | 4Q01 | 1Q02 |
|-----------------------|--------------|--------------|--------------|
| North America* | 0.29 | -0.15 | 0.08 |
| United States | 0.43 | -0.14 | 0.13 |
| Can/Mex | -0.13 | -0.01 | -0.05 |
| Total Europe | 0.35 | 0.14 | -0.12 |
| Pacific | 0.00 | 0.60 | 0.74 |
| Japan | 0.22 | 0.29 | 0.54 |
| Korea | -0.15 | 0.28 | 0.16 |
| ANZ | -0.08 | 0.03 | 0.03 |
| Total OECD | 0.65 | 0.58 | 0.69 |
| Soviet Union | -0.46 | 0.57 | -0.23 |
| China | -0.22 | -0.04 | -0.15 |
| Others | -0.04 | -0.26 | -0.21 |
| Non-OECD | -0.73 | 0.27 | -0.17 |
| Total World | -0.08 | 0.85 | 0.52 |

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Non-OPEC Oil Supply

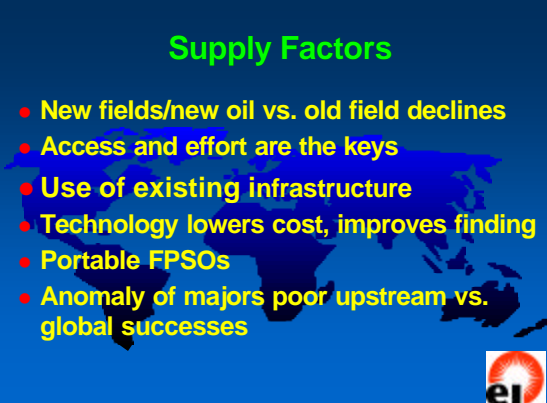
| million b/d | 3Q01 | 3Q01 | 4Q01 | 1Q02 |
|----------------------------|--------------|--------------|--------------|--------------|
| North America | 1430 | 1409 | 1411 | 1408 |
| Gulf of Mexico | 1.49 | 1.52 | 1.56 | 1.58 |
| Alaska | 1.02 | 0.98 | 1.01 | 1.01 |
| Other US Crude | 3.18 | 3.17 | 3.17 | 3.14 |
| NGLs & Other | 2.24 | 2.20 | 2.20 | 2.20 |
| Canada | 2.68 | 2.62 | 2.68 | 2.68 |
| Mexico | 3.48 | 3.60 | 3.51 | 3.60 |
| North Sea | 5.94 | 6.12 | 6.94 | 6.74 |
| UK | 2.93 | 2.97 | 2.72 | 2.55 |
| Norway | 3.12 | 3.18 | 3.45 | 3.33 |
| Denmark | 0.31 | 0.32 | 0.38 | 0.36 |
| Netherlands & German | 0.03 | 0.03 | 0.04 | 0.04 |
| NGLs | 0.43 | 0.30 | 0.37 | 0.26 |
| Former Soviet Union | 8.44 | 8.72 | 8.85 | 8.92 |
| Russia | 6.89 | 7.11 | 7.11 | 7.07 |
| Other FSU | 1.55 | 1.60 | 1.72 | 1.75 |
| Other Non-OPEC | 17.22 | 17.41 | 17.68 | 18.38 |
| Asia | 6.22 | 6.36 | 6.41 | 6.38 |
| Latin America | 3.71 | 3.83 | 3.97 | 4.10 |
| Africa | 2.85 | 2.88 | 2.87 | 3.41 |
| Middle East | 2.01 | 2.01 | 2.01 | 2.02 |
| Other Energy | 1.43 | 1.62 | 1.63 | 1.55 |
| Processing Gain | 1.74 | 1.74 | 1.73 | 1.83 |
| Total Non-OPEC | 45.70 | 46.33 | 47.55 | 48.02 |

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Quarterly Changes In Non-OPEC Oil Supply

| million b/d | 3Q01 | 4Q01 | 1Q02 |
|----------------------------|--------------|-------------|--------------|
| North America | -0.01 | 0.01 | -0.02 |
| Gulf of Mexico | 0.03 | 0.04 | 0.02 |
| Alaska | -0.04 | 0.03 | 0.00 |
| Other US Crude | -0.01 | 0.00 | -0.03 |
| NGLs & Other | -0.04 | 0.00 | 0.00 |
| Canada | -0.08 | 0.04 | -0.01 |
| Mexico | 0.11 | -0.09 | -0.01 |
| North Sea | 0.18 | 0.82 | -0.20 |
| UK | 0.14 | 0.48 | -0.07 |
| Norway | 0.01 | 0.26 | -0.12 |
| Denmark | 0.01 | 0.04 | 0.00 |
| Netherlands & German | 0.00 | 0.01 | 0.00 |
| NGLs | 0.02 | 0.01 | -0.01 |
| Former Soviet Union | 0.27 | 0.12 | 0.00 |
| Russia | 0.22 | 0.00 | -0.04 |
| Other FSU | 0.05 | 0.12 | 0.03 |
| Other Non-OPEC | 0.20 | 0.27 | 0.70 |
| Asia | 0.07 | 0.05 | -0.02 |
| Latin America | 0.12 | 0.13 | 0.13 |
| Africa | 0.00 | 0.03 | 0.55 |
| Middle East | 0.00 | 0.00 | 0.00 |
| Other Europe | 0.01 | 0.01 | 0.02 |
| Processing Gain | 0.00 | 0.04 | 0.03 |
| Total Non-OPEC | 0.63 | 1.22 | 0.47 |

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- ## Supply Factors
- New fields/new oil vs. old field declines
 - Access and effort are the keys
 - Use of existing infrastructure
 - Technology lowers cost, improves finding
 - Portable FPSOs
 - Anomaly of majors poor upstream vs. global successes
- 

- ## New Fields, New Oil
- | | |
|---|---|
| Alaska - Alpine, <i>Meltwater</i> , <i>Northstar</i> | UK - Beaully, Blake, Kyle, Elgin, Franklin, Shearwater, <i>Jade</i> |
| Gulf of Mexico - Brutus, Typhoon, Mica | Norway - Asgard B, Tambar, Glitne, Snorre 2, Gullfaks Sats 2, <i>Rnghorne</i> |
| Canada - Sable Island, Terra Nova, Suncor Millenium Proj. | Denmark - <i>Stinnes</i> |
| Mexico - Cantarell Nitrogen injection proj. | Netherlands - Hanz |
| | Italy - Mont Alpi, <i>Tempa Rossi</i> |
| Venez. - Sincor, Petrozuata, Cerro Negro, <i>Hamaca</i> | Libya - En Naga, Elephant |
| Brazil - Marlim Sul, Roncador | Algeria - Hassi Berkine, Rhourde-el-Baguel |
| Ecuador - OCP Pipeline | Eq. Guinea - Ceiba |
| Argentina - San Jorge Basin, Nequen Basin enhanced recovery | Nigeria - Abo, EA, Bonga, <i>Erha</i> , Agbami |
| | Angola - No. Nemba, <i>Girassol</i> |
| | South Africa - <i>Sable</i> |
- 

More New Fields, New Oil

| | |
|---|------------------------------------|
| Egypt – North July, Western Desert, Deep Med. cond. | Russia - Sakhalin Island |
| Iran – Sirri, South Pars | Kazakstan – CPC, Karanchaganak |
| Kuwait – Minagish, Umm Gudair | Azerbaijan – Chiag, Azeri |
| Neutral Zone - onshore | China - Penglai, Bozhong, Suizhong |
| Qatar - Al Rayyan expansion | Philippines - Malampaya |
| Oman - offshore | Vietnam - Ruby, Topaz |
| | Australia - Legendre, Gypsy |



US OIL MARKETS

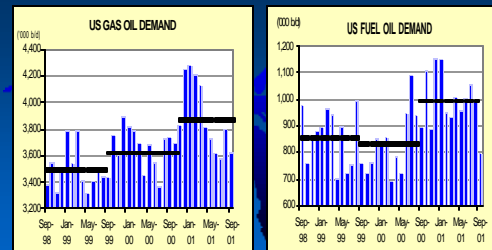


US Oil Markets

- Slowing Demand Growth
- Mixed supply picture
- Inventories adequate to tight now; but
 - quick change on weak demand, strong supply
- Prices likely to follow, not lead
- Rich energy political agenda



US Key Oil Product Demand



Conclusions

- Oil market was in “trouble” before Sep. 11
 - economic weakening
 - OPEC overproduction
 - coming non-OPEC supply growth
- Perceived effects on demand > on supply
 - one of the “crisis” driving both S&D down
 - economic effects seen more certain
 - disruptions, uncertain & can be offset
- More pressure down than up on world prices
- US could be even softer
- Global & US oil supplies look to be adequate

