Making Sense of Oil Prices

PRADEEP ANAND
Seeta Resources LLC
pradeep@seeta.com; +1 281 265 9301; www.seeta.com

November 12, 2005
Agenda

- Introduction
- Importance Of Oil
- Historical Perspective
- Future/Implications
Seeta Resources

- Accelerated Business Growth
- Swift Turnaround
- Oil & Gas Industry
- Engineering & Manufacturing
- Software & IT Services
Business Growth

- Four Cs
  - Customers
  - Competition
  - Company
  - Climate

- Four Execution Levers
  - Market Activity
  - Market Share
  - New Products
  - Pricing
Oil & Gas: Vital & Ubiquitous

• Approximately 10 calories of fossil fuels are required to produce every 1 calorie of food eaten in the US

• Energy used in producing ten computers is enough to produce an automobile

• Modern homes, transportation, medicine, communications, water distribution, and defense are entirely powered by oil & gas

• Almost all work is done with energy driven by fuel, from oil and natural gas
Growth Depends on Oil Prices

World Oil Prices and U.S. GDP: An Inverse Relationship

- Percent Change in U.S. GDP
- World Oil Prices
- Dollars per Barrel (in real 1996 dollars)

Graph showing the relationship between world oil prices and U.S. GDP growth from 1969 to 2001.
Since 1869, Average Prices Have Been Less Than $20/BBL
Gasoline Pump Price: Annual Average 1919-2006

Short-Term Energy Outlook, October 2005, DOE/EIA
What is Creating the Oil Price Spike?
No Spare Capacity!

- In the 1970s a shortfall of 5% quadrupled oil prices
- 5% shortage in natural gas increased California gas prices by more than 400%
Spare Capacity & Oil Prices

Graph: 2005 $/bbl vs. MMb/d

- Red line: WTI Spot Price
- Blue line: World Excess Production Capacity

Forecast marker:

Jan-90 Jan-95 Jan-00 Jan-05

Pradeep Anand; pa@seeta.com; +1 281 265 9301; www.seeta.com
The Specter of Peak Oil!

- M. King Hubbert, Shell Geologist, accurately predicted in 1956 that U.S. oil production would peak in about 1970 and decline thereafter.

- We are consuming 6 barrels of oil for every 1 we find!

- We are close to a global peak – 2000 to 2020.
Skittish Commodity

- Peak Capacity
  - Oil and gas production
  - Processing oil & gas
  - Transportation, pipelines, tankers
  - Drilling rigs
  - Refinery capacity
  - People

Source: EIA
Katrina & Rita: The 9/11 Of The Oil & Gas Industry

DOUBLE TROUBLE ON RefINERY ROW

Even before Katrina hit last month, tight oil supplies and growing global demand for fuel had Americans paying premium prices for regular gas. Preparing for Rita cost us an even larger chunk of our Gulf Coast capacity. A closer look at the toll of the two hurricanes.

Refinement
Taken at the freight
Katrina and Rita shut down or combined 6 million barrels per day (bpd) of refinery capacity or 35% of the U.S. total.

REFINERY KEY:
- Closed due to Rita
- Closed due to Katrina
- Closed but reopened after Katrina
- Never closed

Production
Rita halted 92% of all gulf production. Katrina damages shown on map.

OIL/RIG KEY:
- Evacuated
- Damaged

Paying at the Pump
After Katrina, gas retail prices surged to $3.50; the ravages of Rita could burden consumers further.

23 million bpd of oil production and refinery halted for Katrina

3.3 million bpd of oil production and refinery halted for Rita

5.4 million bpd of oil production and refinery halted for Rita

GASOLINE FUTURES

Price
gallon

8/1/05
8/23/05

$1.60

Newsweek, October 3, 2005
Crude Oil Prices - Forecast

Short-Term Energy Outlook, October 2005, DOE/EIA
Impact of Higher Oil Prices

- Misconception: Higher oil prices caused double-digit inflation in the 1970s

- Reality: High oil prices didn't cause the 1970s' double-digit inflation; they simply made it slightly worse

- Inflation peaks: 12.3 percent for 1974; 13.3 percent for 1979

- Without energy effect: 11.7 percent (1974) and 11.1 percent (1979)
Signs Of An Inflation Breakout?

- **Right Ingredients:**
  - A big jump in oil prices; an increase in the price of Gold; low unemployment rate (5.1 percent in September, despite Katrina) that could push up wages

- **But:**
  - Energy costs still make up a relatively small portion of the “average” U.S. household’s budget
  - American businesses and consumers are using that energy more efficiently than they did 30 years ago

- **Dangers will emerge from elsewhere!**
# It’s a Global Economy, Stupid!

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Real GDP</th>
<th>Oil consumption</th>
<th>Oil intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industrialized countries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>29.3</td>
<td>29.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Canada</td>
<td>2.3</td>
<td>2.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Mexico</td>
<td>1.4</td>
<td>1.7</td>
<td>4.1</td>
</tr>
<tr>
<td>Western Europe</td>
<td>28.6</td>
<td>23.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Japan</td>
<td>13.4</td>
<td>9.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Australia/New Zealand</td>
<td>1.7</td>
<td>1.7</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>76.8</td>
<td>68.2</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Former Soviet Union and Eastern Europe</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Former Soviet Union</td>
<td>2.1</td>
<td>2.6</td>
<td>4.1</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>1.9</td>
<td>1.5</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3.3</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Developing Countries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>4.1</td>
<td>7.5</td>
<td>5.9</td>
</tr>
<tr>
<td>India</td>
<td>1.7</td>
<td>2.7</td>
<td>5.2</td>
</tr>
<tr>
<td>South Korea</td>
<td>1.8</td>
<td>9.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Other Asia</td>
<td>4.0</td>
<td>5.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Middle East</td>
<td>1.9</td>
<td>2.1</td>
<td>3.7</td>
</tr>
<tr>
<td>Africa</td>
<td>2.0</td>
<td>2.4</td>
<td>4.1</td>
</tr>
<tr>
<td>South/Central America</td>
<td>4.5</td>
<td>5.5</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>19.9</td>
<td>27.8</td>
<td>4.7</td>
</tr>
<tr>
<td><strong>Total World</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Impact on the Indian Economy

- India imports over 70% of its crude oil requirements

- $10/bbl increase in oil prices could shave off 0.4% from headline GDP growth

- Losses from oil companies could act as a drag on government finances

- Every $1/bbl increase in oil prices will increase India’s import bill by around $700 Million

- Every $1/bbl increase in oil prices and pressures of a coalition government, has the potential to raise inflation by 0.80%

INDIA’S SHORT-TERM SAVIOR
$140 BILLION FOREX RESERVE
Implications

• A catalyst for inflation & recession
• Recent concepts – Globalization, JIT, Lean Manufacturing – under attack
• An oil & gas shortage of 10-15 percent can shatter the global economy
• War

• Unless...
Ring Out The “Oil Age”

• Ring In The “Renewable Energy” Era, for Electricity

• Invest In Responsible/Efficient Use of Oil & Gas: Transportation, Petrochemicals & Heating

• Use Nuclear Power During Transition
  – Tar Sands and Oil Shales are too expensive and unfriendly/toxic to environment
In the Meantime...

- Focus on conservation and efficiency
- Don’t reinvent the wheel; emulate frugal energy consuming countries
- Entrepreneurial opportunities in alternative energy sources
- Positive for knowledge industry - need for improving productivity
THANK YOU!

Making Sense of Oil Prices

PRADEEP ANAND
Seeta Resources LLC
pradeep@seeta.com; +1 281 265 9301; www.seeta.com

November 2005