

PARKS PATON HOEPFL & BROWN

E N E R G Y I N V E S T M E N T B A N K I N G , L P

MUSINGS FROM THE OIL PATCH

May 4, 2005

Allen Brooks
Managing Director

Note: *Musings from the Oil Patch reflects an eclectic collection of stories and analyses dealing with issues and developments within the energy industry that I feel have potentially significant implications for executives operating oilfield service companies. The newsletter currently anticipates a semi-monthly publishing schedule, but periodically the event and news flow may dictate a more frequent schedule. As always, I welcome your comments and observations.* Allen Brooks

Russian Oil Production Outlook Reduced

Ministry of Economic Development and Trade has a new forecast calling for Russian oil production to grow by only 2.4% to 9.42 million b/d

In its latest quarterly report, the Ministry of Economic Development and Trade has lowered its forecast for Russian oil production. The new forecast calls for Russian oil production to grow by only 2.4% to 9.42 million barrels per day (b/d). That forecast is 300,000 b/d below other official Russian projections that call for the country's oil production to grow by as much as 5%.

The cutback in production growth is due to the anticipated, and emerging, impact on Russia's business climate from the government's effort to dismantle the major oil company, Yukos, last year. Investment in the Russian oil sector dropped last year by 6.5% after a sharp increase in 2003. Interestingly, the Yukos name was not mentioned in the Ministry's report, possibly because of the negative repercussions of calling official attention to this government action.

Russia has been the single largest source of additional global crude oil supply, something many forecasters have assumed would continue

The high end of the Ministry's new forecast range, 9.66 million b/d, is below the 9.72 million b/d forecast issued last month by the Federal Energy Agency. That forecast called for an almost 6% gain in production in 2005, much more in line with the previous five year growth rate in Russian oil production of 8%. During those years, Russia was the single largest source of additional global crude oil supply, something many forecasters have assumed would continue.

The International Energy Agency (IEA) recently revised its

forecast for Russian oil production, reducing the grow rate to 3.6%, or 9.6 million b/d, in line with their estimate for first quarter 2005 production. Interestingly, the April monthly oil report issued by OPEC pointed out that Russian oil production had fallen 80,000 b/d below its projection. As a result of this shortfall, OPEC revised downward its forecast for Russian oil production growth in 2005. OPEC is now forecasting a 360,000 b/d increase versus its prior (March) forecast for growth of 450,000 b/d.

For the past six months, Russian oil production growth has stagnated

What many forecasters are beginning to pick up on is that for the past six months, Russian oil production growth has stagnated, even declining in four of those months. Is this situation a direct result of the lack of investment in Russia's oil business due to the political events of the past year, or are there technical problems with Russia's oil fields?

In a speech in 2004, Alexei Kontorovich, director of the Russian Institute of Oil and Gas Geology, estimated that it would take an investment of \$14 billion to explore and develop oil deposits in Siberia. In addition, the country would need to construct new oil pipelines to move the oil to China and Japan. He stated that only 3.8% of the reserves in East Siberia have been explored and prepared for drilling, holding out the prospect for significant future oil production growth once money and infrastructure are in place.

The proposed oil pipeline to export Siberian oil to Russia's Pacific coast continues to be negotiated. Both Japan and China want access to that oil production. Japan has offered to finance the pipeline's construction while China as proposed some funds to pay for an extension to its northern oil refineries. No decision has been made about which specific route the line will take, but the politics (and finances) need to be resolved if the line is to be built soon.

No country that has experienced three years of consecutive production declines has ever exceeded its prior production peak

The latest negative forecast for Russia was the International Monetary Fund's revised estimate for the country's economic growth of 6% in 2005 and 5.5% in 2006, down from their prior forecast of 7% growth per year. The reasons behind the reduction are falling oil production and declining foreign investment.

We remain haunted by an analytical observation about global oil production forecasts that points out that no country that has experienced three years of consecutive production declines has ever exceeded its prior production peak. This is not a comforting observation for energy forecasters counting on higher future Russian oil production to close the gap between

global oil demand and supply.

The Return of El Niño?

Energy industries and markets are closely watching to see whether an El Niño weather pattern may be developing this summer. Should this pattern develop, there could be a huge shift in summer weather and tropical storm forecasts, significantly impacting natural gas demand, potential gas supply and pricing levels.

Weather forecasters are watching the development of Kelvin Waves in the Eastern Pacific Ocean and whether they are the precursor of the return of El Niño. A Kelvin Wave is a vast accumulation of subsurface warming in the equatorial Pacific Ocean region that has reached the northwest coast of South America. The critical issue is whether the subsurface warming leads to warming of the surface waters, which is what creates the El Niño. Weather forecasters and predictive models are reaching differing conclusions about the possibility of the trend developing, and thus they have different summer weather forecasts.

The majority of the weather models are predicting neutral conditions this summer with somewhat warmer than average temperatures, while about one-third of the models are predicting an El Niño

The weather models of the Bureau of Meteorology in Australia and the National Weather Service both are forecasting this warming trend to happen. The majority of the weather models are predicting neutral conditions this summer with somewhat warmer than average temperatures, while about one-third of the models are predicting an El Niño. The lack of a consensus among the computer models is evidence for why the March to June period is known as the “predictability” barrier, where model skill is at its lowest predicting accuracy.

Our favorite weather forecaster, Accuweather Senior Meteorologist Joe Bastardi, made some interesting and enlightening observations about this debate about El Niño. He said, “I think there is a weak El Niño going on, but I believe we are getting carried away with El Niños and La Ninas nowadays. For instance, it’s like someone saying that there is the possibility of snow.” Bastardi said in the snow analogy, what is important is whether there is going to be a foot of snow or an inch of snow. To date, no one has quantified the El Niño impact.

Bastardi said he believes the weather forecasting community needs to be more cautious in its speculations about El Niño and La Nina. There are clearly a lot of big pulses up and down occurring, but at the moment cold water off of South America is trying to counter it. Bastardi said, “Looking at the current

Bastardi's Atlantic hurricane forecast for this fall calls for five landfalling storms, one major hurricane and at least six shutdown days in the Gulf of Mexico

overall weather pattern, it wouldn't surprise me if there was a weak El Niño, but as of this time, it does not affect the criteria I look at for landfalling storms. I don't foresee the El Niño pattern becoming overpowering."

Based on his assumption about the weather pattern in the South Pacific, Bastardi's Atlantic hurricane forecast for this fall calls for five landfalling storms, one major hurricane and at least six shutdown days in the Gulf of Mexico. This forecast represents another above normal landfalling hurricane season for the U.S. coastline, but less than last year. It also is likely that the damage and natural gas industry impact will be above normal in his forecast. Bastardi noted, "If there was an overpowering El Niño, I would remind you that we had both Hurricane Andrew and Hurricane Alicia in El Niño years. One could argue that the greater the threat of El Niño, the greater the threat of a Gulf of Mexico storm that would adversely impact the natural gas industry."

We suspect these hurricane forecasts will help support strong natural gas prices for the next 30 days

Professor William Grey of the Atmospheric Department of the Colorado University has increased his hurricane forecast for 2005 to 13 named storms, seven hurricanes and three intense hurricanes, up from 11, six and three before. Grey's forecast is based on the continued warming of the Atlantic Ocean and a belief that significant El Niño conditions for this summer and fall are now less likely, increasing the possibility of more storms in the Atlantic region.

With less than one month to go to the official start of the 2005 hurricane season, the development or moderation of the South Pacific conditions that might impact the development and strength of El Niño conditions will be important to watch. More discussion of these conditions will emerge as we approach June 1. For the time being, we suspect these hurricane forecasts will help support strong natural gas prices for the next 30 days, even with the current weakening of crude oil prices.

Bush Likes LNG, But Could We See a New OPEC?

At his press conference last Thursday night, President George W. Bush talked about the need for the United States to develop more liquefied natural gas (LNG) receiving terminals in order to better secure our energy future. A bitter battle has developed among environmentalists, local government officials and communities and the Federal government over who should control the siting of these facilities. At the present time, the rules of the Federal Energy Regulatory Commission (FERC) and the proposed energy legislation moving through

Congress give the ultimate sitting power to FERC. The issue, however, may be less significant than the physical impact of LNG receiving terminals on the operation of the nation's natural gas pipeline network.

We recently attended a presentation about the successful corporate turnaround underway at El Paso (EP-NYSE) by Chairman and CEO Doug Foshee at a joint meeting of the Houston chapters of the Turnaround Management Association and the National Association of Corporate Directors. In response to a question from the audience, Foshee discussed his company's outlook for LNG.

El Paso believes that LNG will account for less than 25% of U.S. gas supply by 2025 and not have much of a supply impact until after 2007 or 2008

El Paso owns one of the four main operating LNG receiving facilities in the country - the terminal at Elba Island, Georgia. Foshee said El Paso believes that LNG will account for less than 25% of U.S. gas supply by 2025. They also do not see much of a supply impact beginning until after 2007 or 2008.

According to Foshee, the major limitation to the growth of LNG supply is the lack of liquefaction facilities. These facilities are extremely expensive costing in excess of \$1 billion per unit (train). These export facilities also require the development of the gas supplies to feed them. As a result, it takes several years to build and bring into operation these gas export facilities. The construction time for gasification, or receiving, facilities is considerably shorter due to the lack of intellectual capital involved, since the gasification process merely involves warming up the super-cold liquefied gas.

Most of the receiving facilities will be constructed in the Gulf Coast region, especially now that offshore receiving terminals have been approved for the Gulf of Mexico

Foshee does not believe that there will be many receiving terminals built on either the East or West Coasts since their operation compounds problems for gas pipeline and gas utility owners and operators. He believes most of the receiving facilities will be constructed in the Gulf Coast region, especially now that offshore receiving terminals have been approved for the Gulf of Mexico. His belief is based on the operating characteristics of the gas industry, the need to adjust to the operating impact of LNG on the gas volumes and the receptivity of the Gulf States to these facilities.

The Gulf Coast region holds the pipeline infrastructure necessary to absorb the influx of LNG supply. Due to the operation of export facilities, LNG supplies arrive in the consuming market roughly every five days creating a challenge for heat-sensitive markets such as the U.S. East Coast. The East Coast would need to develop significant gas storage capacity in a region where both the geology and available space are not supportive. Most of the pipeline gas storage

Arriving LNG is often not the same quality as gas produced in the Gulf of Mexico or onshore in the Gulf Coast region

capacity is located in the Gulf Coast region. In addition, arriving LNG is often not the same quality as gas produced in the Gulf of Mexico or onshore in the Gulf Coast region. Thus, LNG supplies often need to be blended with domestic gas, or processed, such as stripping out liquids, in order to be used, and all that treating capacity is located along the Gulf Coast.

The real development challenge for the LNG market is construction of adequate export capacity, especially as the global gas market shifts from a multitude of regional markets into a single global market

The last significant reason why LNG will primarily come to the Gulf Coast region is the design of the U.S. natural gas pipeline network. Pipelines extend from the major producing regions such as the Gulf Coast states and radiate out to consuming markets such as the Midwest, Northeast and mid-Atlantic regions. The pipelines were built in a telescoping manner with the large end in the producing region and small end in the consuming market. As gas volumes flow from the producing to the consuming regions, the volume shrinks as small amounts are offloaded to local markets, reducing the need for large pipelines. In order to handle significant and regular LNG deliveries into a gas consuming market, pipeline operations would need to be modified creating operational inefficiencies. So while the more noteworthy media events will focus on the struggle for approval of LNG receiving terminals along the East Coast, the country's capacity to receive LNG will quietly grow along the Gulf Coast.

The real development challenge for the LNG market is construction of adequate export capacity, especially as the global gas market shifts from a multitude of regional markets into a single global market. Besides gasification and liquefaction facilities, the industry needs more LNG ships. The shipbuilding industry is ramping up to construct a large number of new LNG tankers. The newest ships will be larger than their older siblings due to the need to improve the economics of transporting LNG. The cost of these ships is escalating with new vessels costing in the range of \$170 million or more. Raising the capital for these vessels is becoming a challenge that only the largest shipowners are capable of handling.

Currently, a subsidiary of TeeKay Shipping (TK-NYSE) is in the market to finance construction of an LNG tanker fleet in the form of a master limited partnership (MLP). Management is currently on a roadshow to sell units in the partnership. The ability of this entity venture to pay a stream of income generating a current yield on the investment in excess of that of alternative moderate-risk debt securities should insure a large demand for the issue. According to *Marine Money*, the deal is being priced at a valuation of 12 times the projected earnings before interest, taxes and depreciation (EBITDA), or gross cash flow. MLPs by law must pay out 90% of their cash

flow and the individual recipient pays taxes on the income distribution. While this is an attractive way of raising low-cost capital, it merely highlights that the development of the LNG market will require billions of dollars of infrastructure investment. Both the time required to raise this capital and to deploy it in new infrastructure facilities suggests a forecast-risk to timing the development of the LNG market.

What could upset the LNG market outlook?

First is the potential for LNG to arrive in the U.S. at a delivered cost well below current natural gas prices

What could upset the LNG market outlook? Two things in our estimation. First is the potential for LNG to arrive in the U.S. at a delivered cost well below current natural gas prices. Current higher natural gas prices reflect the economics of harder-to-develop domestic gas supplies. Second is the potential for the development of an OPEC equivalent for the global natural gas industry.

In the case of the first issue, low-cost LNG is a function of two factors, the cost of the facilities to liquefy, transport and gasify the fuel along with an appropriate profit on the investment, and the cost of the gas. So far, most of the new LNG supplies are based on projects designed to exploit stranded or flared gas, i.e., gas that has little or no economic value or may actually have a cost associated with it. In these situations, with the gas value being very low, realizing any economic value represents a significant profit. The project economics of these types of gas supplies may allow, the delivered cost of the LNG to be well below current domestic gas prices. Our belief is that this condition will not last for long. The recent decision by Qatar, the current hotspot for natural gas related projects, to halt all further projects, including a number that were in the development stage, signifies that the government wants to go slow until it fully understands the economic impact of the development/sale of its resources.

Second is the potential for the development of an OPEC equivalent for the global natural gas industry

The second potential negative for the LNG market is the development of a gas cartel. Last week, there was a meeting of a little-known, four-year-old organization called the Gas Exporting Countries Forum. The organization met in Port of Spain, Trinidad and Tobago, a major site of new LNG project developments. The organization says it merely wants to promote cooperation with gas-consuming countries. It says it does not want to control pricing and supply. However, in past meetings, it has reportedly discussed mutual efforts to capture a greater share of the wealth generated by the development of their natural gas resources. This mirrors the evolution of OPEC in the 1960s.

In order to become a successful cartel, you need price-fixing capability. That means you need market concentration. At the

present time, the members of the forum account for 53% of the natural gas imported by the industrialized countries that make up the Organization for Economic Cooperation & Development (OECD). That compares with OPEC's current share of oil imports into these states of 52%. The countries invited to the forum by the Trinidad hosts included: Algeria, Bolivia, Brunei, Egypt, Indonesia, Iran, Libya, Malaysia, Nigeria, Oman, Qatar, Russia, Trinidad, United Arab Emirates and Venezuela. In addition, Norway, Argentina and Equatorial Guinea were invited to observe.

Predicting the development of an OPEC for natural gas is difficult, but conditions are ripe for one to emerge

Predicting the development of an OPEC for natural gas is difficult, but conditions are ripe for one to emerge. Demand for natural gas on a global basis is growing as its clean-fuel attributes increasingly are recognized. Major gas-supplying countries are beginning to max out their current production. Because historically most gas volumes moved through pipelines, the development of the LNG market with its heavy capital investment and transportation requirements, spot gas markets are slowly emerging. This means that price increases, or decreases, for vessel cargoes can impact the economics for all gas markets. This is where the real pricing power can emerge.

What all this means is that the ability of any country to find relatively cheap sources of energy supply for any extended period, short of convincing suppliers to enter into low-priced, long-term contracts, is limited. Higher cost LNG may ultimately help some of the more environmentally friendly energy supply sources achieve economic profitability sooner than they might otherwise. The bottom line is that energy will remain a higher cost economic input for the foreseeable future.

Bush Open Fibber's Closet

It almost looked liked President Bush was opening the country's closet over the past two weeks

On the old radio show, Fibber McGee and Molly, Fibber had a closet where he put everything he wanted to save or hide. On every show, for some reason Fibber had to open the closet and everything fell out with a loud roar and to laughter from the audience. It almost looked liked President Bush was opening the country's closet over the past two weeks. Last week, after his meeting with Saudi Arabia's leader, Crown Prince Abdullah, who admonished the Administration that OPEC was supplying all the oil the market demanded, but that high gasoline prices caused by a shortage of refineries was what was keeping oil prices high, he proposed building new refineries on abandoned military bases. This followed on the prior week's proposal to turn more abandoned offshore platforms into fish farms.

Quite possibly the anti-environment President has embraced re-cycling – starting with abandoned military bases and offshore platforms

Quite possibly the anti-environment President has embraced re-cycling – starting with abandoned military bases and offshore platforms. Gulf of Mexico fish farms utilizing abandoned offshore platforms does not require a great leap of faith. Everyone, including environmentalists, knows that the fish population thrives in and around offshore platforms. But assuming that neighbors of former military bases will love having new refineries next door may require a much greater leap of faith. By tying high gasoline prices to a lack of refining capacity, Bush may be quietly acknowledging the challenge of convincing the American public that refineries can be good neighbors. This is a challenge not helped by the recent explosion of the BP (BP-NYSE) refinery in Texas City, Texas, that killed 13 people. Lately, the number of refinery accidents is not doing much for overcoming the NIMBY (not-in-my-backyard) mentality regarding constructing new plants, even in Texas. Despite these problems, we admire President Bush for continuing to rummage in Fibber's closet seeking solutions to our energy needs. Putting more issues, and possible solutions, on the table is important for trying to find an acceptable solution to our energy needs.

Saudi King Promises More Oil – Now and in the Future

According to Abdullah the market is well supplied and is not demanding more oil

When Saudi Arabia's leader, Crown Prince Abdullah, met with President Bush at the Crawford, Texas ranch at the beginning of last week, he said that his country was prepared to pump as much oil as the world needed. However, he also reminded President Bush that there needed to be greater investment in new refineries and oil tankers to meet global energy needs. Abdullah said Saudi Arabia was pumping 9.5 million b/d and was capable of pumping up to 11 million b/d. However, according to Abdullah the market is well supplied and is not demanding more oil. Of course he failed to note that almost all of Saudi Arabia's extra oil production is of heavy and sour crude oils that the market does not want because it cannot refine it, and when it can, the profit margins are low.

Abdullah told President Bush that the Kingdom was prepared to invest \$50 billion in its oil industry over the next five years, or double the investment of the past five years. That is welcome news for both the world and the oilfield service industry. However, this stepped up investment will only boost the Kingdom's production to 13 million b/d by the end of the decade. Crown Prince Abdullah said that Saudi Arabia was prepared to increase its production capacity during the next decade to 15 million b/d.

Exhibit 1. 2010 OPEC Production Forecasts

Projections	MMb/d
OPEC 2002 Production	29.7
2010 Forecasts	
IEO2004	35.7
GII	33.0
IEA	35.9
PEL	33.5
PIRA	31.3
DB	34.7

Sources: **IEO2004**: Energy Information Administration, System for Analysis of Global Energy Markets (2004); **GII**: Global Insight, Inc.; **IEA**: International Energy Agency; **PEL**: Petroleum Economics, Ltd.; **PIRA**: PIRA Energy Group; **DB**: Deutsche Banc AG.

Source: EIA 2004 Energy Outlook

Should we be encouraged or worried by the Saudi announcement of plans for production capacity increases?

This production increase is welcome, but he raises a question. When we look at the forecasts for future OPEC production in 2010, we find that this additional supply represents almost all the incremental oil already anticipated by forecasters sampled for the Energy Information Administration 2004 Long-term Outlook. Should we be encouraged or worried by the Saudi announcement of plans for production capacity increases? If a major expansion of Saudi's output was not assumed by the forecasters then maybe we have more supply than anticipated. On the other hand, if a Saudi production expansion was assumed, then maybe we should be concerned because of the cost and time needed, given that almost all these long-term forecasts tend to slip in their realization.

Exhibit 2. United Arab Emirates



UAE has various projects designed to boost production to 3 million b/d by the end of 2006

Source: Yahoo.com

The United Arab Emirates (UAE) announced recently that it plans to increase its productive capacity from its current 2.5 million b/d to 3.2 million b/d. At the UAE's current production rate, the emirates have no surplus capacity. In June 2004, the UAE brought ExxonMobil (XOM- NYSE) in as a strategic partner in the development of the Upper Zakhum field with a 28% ownership interest. The plan is to raise the field's production from the current 550,000 b/d to 750,000 b/d by 2008 and to 1.2 million b/d by 2010.

In the mean time, the UAE has various projects designed to boost production to 3 million b/d by the end of 2006. The projects, all for onshore fields, are outlined in Exhibit 3.

Exhibit 3. UAE Oil Production Growth Projects

Field	Current Prod (b/d)	Future Prod (b/d)	Date	Notes
Bu Hasa	550,000	730,000	end 2006	natural gas plant, natural gas & water injection wells
Bab	200,000	300,000	end 2006	natural gas injection wells
Asab	280,000	310,000	end 2006	
Al Dabbiya	}			
Rumaitha	}	100,000	end 2006	
Shanaget	}			

The UAE is made up four states. Those include Abu Dhabi with 94% of the region's 97.8 billion barrels of reserves, or 92.2 billion barrels, Dubai with 4.0 billion barrels, Sharjah with 1.5 billion barrels and Ras Al Khaimah with 100 million barrels. The UAE's reserves represent about 8% of the world's supply.

The Petroleum Challenge of Demographic Trends

A primary reason for the population decline is the crisis in the Russian family and its impact on the decline in fertility rates

One of the most insightful columns we have read recently about the impact of long-term demographic trends in Russia, and especially in China, was authored by David Brooks in the April 28th edition of *The New York Times*. The column began by focusing on Russian President Vladimir Putin's recent outlook speech delivered to the Soviet people, in which he described the fall of the Soviet Union as "the greatest geopolitical catastrophe of the century." Putin also said that an "epidemic of collapse has spilled over to Russia itself." In Brooks' opinion Putin was half right. Brooks said that most of us were grateful for the collapse of communism. But, according to Brooks, the sad thing in the impact on Russia from the "epidemic of collapse." Part of that impact is due to the country's population decline. According to United Nations projections, Russia's population will fall to about 104 million in 2050 from 146 million in 2000. Russia will drop from the 6th-most-populous country in the world to the 17th.

The reasons for this population decline are numerous. A primary one is the crisis in the Russian family and its impact on the decline in fertility rates. According to Russian government statistics, between 1981 and 2001, marriage rates have fallen by a third and divorce rates climbed by a third. The American Enterprise Institute's Nicholas Eberstadt pointed out in an article in *The Public Interest*; Russia now has three divorces for every four marriages. This is an outstanding rate of family breakups.

Russian fertility rates also plummeted during the breakup of the Soviet Union, although they have recovered some in recent years. From 1986-87 to 1999, births per woman fell from 2.19 to 1.17. A stable population replacement rate is 2.1 births per woman. While the birth rate has recovered some, it still remains below the replacement rate. According to Eberstadt, Russia currently has about 160 deaths for every 100 births.

In the past three decades, Russian mortality rates have risen by 40%

According to Russian statistics, a 20-year-old man in 2000 had only a 46% chance of reaching age 65 in contrast to about an 80% chance for the same age American male

The major reason for the projected decline in the Russian population is the sharp rise in death rates. In the past three decades, Russian mortality rates have risen by 40%. As a result, Russians are dying younger. In fact, Russians are now less healthy than their grandparents were in 1960. Russian life expectancies now approximate those in Bangladesh and are below India's. Much of this deterioration in life expectancy is the result of the fraying of the social fabric and poor medical treatment. There has been an explosion of heart attacks and strokes, thanks to smoking, increased vodka consumption and other lifestyle choices. The official health statistics haven't yet accounted for the growing H.I.V./AIDS epidemic in the country. According to Russian statistics, a 20-year-old man in 2000 had only a 46% chance of reaching age 65 in contrast to about an 80% chance for the same age American male.

Brooks' interpretation of these statistics is that they reflect a country enduring a slow-motion version of the medieval Black Death. What he marvels at is that Russia, with its internal structure crumbling still possesses nuclear weapons and an economy growing at an impressive rate of about 6-7% per year. He believes that when totalitarian regimes take control of a country, they destroy the bonds of civic trust and normal patterns of social cohesion. According to Brooks, "When totalitarian regimes fall, different parts of society recover at different rates. Some enterprising people take advantage of economic recovery and the result of their efforts is economic growth."

Brooks believes that repair of the social fabric takes longer to recover. As a result, you can wind up with a country with a high economic growth rate and lingering military power that mask social chaos. We would agree, but extend the analysis further. In Russia's case, we suggest that its weakening military is being supplanted by the use of the country's energy resources. But these strengths are still hiding the social chaos that has recently been energized by the elimination of subsidies for health care, energy and transportation expenses for retirees. These changes have sent pensioners into the streets in protest in numerous Russian cities.

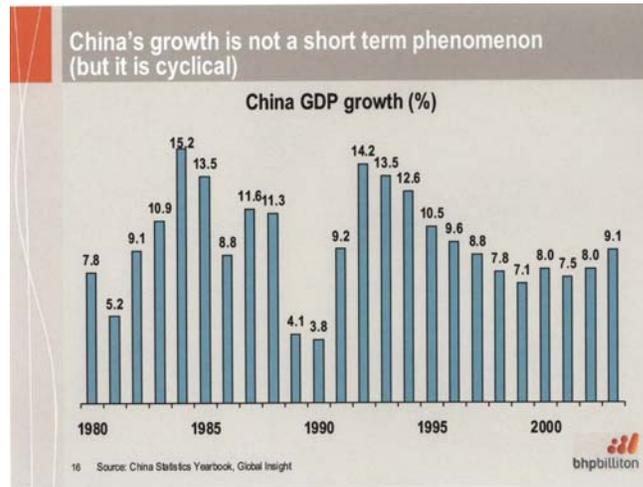
China will be living with the consequences of totalitarianism for some time

Brooks carries his Russian analysis further to suggest that some of these social problems are what is deeply entrenched in the Iraq insurgency. But he truly believes that China is about to fall prey to the ravages of totalitarianism.

“On the surface, China looks much more impressive than Russia,” writes Brooks. “But this is a country that will be living with the consequences of totalitarianism for some time. Thanks to the one-child policy, there will be hundreds of millions of elderly people without families to support them. Thanks to that same policy, and the cultural predilection for boys, there will be tens of millions of surplus single men floating around with no marital prospects, no civilizing influences, nothing to prevent them from assembling into violent criminal bands.”

Brooks believes China’s internal social chaos will ultimately lead to international consequences. We don’t rule that out, and in fact expect it to happen. The issue is what international consequences will they be? However, we believe that China’s leaders understand the long-term social and economic risks created by the government’s past policies. Historically, China’s economic safety net for its aging population was large families. Now, as China looks forward to becoming one of the oldest populations in the world during the next 45 years, economic growth becomes much more important in order to create an economy that can afford to support its aging populace. By 2050, according to UN projections, China will have twice as many people 50 years and older as they have that are 20 years and younger. In the past, the country’s social safety net has been large families, but that option no longer exists. It is this recognition that is driving China’s economic renaissance and its need for a larger economy. More per capita income is a step toward being able to deal with China’s ageing population. One cannot lose sight of the issue that China’s economy has grown at a high rate for a much longer time span than the past few years.

Exhibit 4. China’s Economic Growth Record



Source: BHPBilliton

China will continue to impact natural resource markets with its strong appetite holding up commodity prices

Despite the economic challenges facing the country, we expect China's economy will continue to grow at a high rate for many years to come. That does not ignore the fact that the country has numerous financial, economic and political problems. What we are acknowledging is that the risk of governmental failure is so great that the leaders will allow some problems to fester until they need to be addressed at a future point in time. In the mean time, China will continue to impact natural resource markets with its strong appetite holding up commodity prices.

Contact PPHB:
1900 St. James Place, Suite 125
Houston, Texas 77056
Main Tel: (713) 621-8100
Main Fax: (713) 621-8166
www.pphb.com