



NextGen Performance[®]

KBC PERSPECTIVE: Current Sector Realities

NextGen Performers are those who are able to navigate the current economic and regulatory challenges. These leaders, who possess the foresight to maintain operational integrity and face these realities directly, will be successful during the current economy and poised for greater returns as the economy improves. Many clients ask, "What should we be doing right now?" The following information provides some perspectives on the current conditions and the types of actions that might be considered to navigate these challenges.

Relevant considerations include the following:

- A long term view allows actions taken today set the stage for future success.
- Short term strategies are required to meet events on an economic horizon; inaction is not a viable strategy.
- Specific tactics and strategies are dependent on on the refiner's unique situation.

KEY CHALLENGE: DECREASED DEMAND FOR OIL

Between 2008 and 2009, there has been a 5.4 million bbl/d downward shift in the long term global oil demand curve. This is the first back-to-back yearly decline in global demand in over 20 years has recently occurred (see Figure 1). The short term downward shift in demand has occurred due to the global recession, increased use of biofuels, and improved energy efficiency.

This has adversely impacted global refining margins resulting in:

- Capital Constraints/Limited or No Capital Budgets (for Independent Oil Companies vs National Oil Companies)
- Pressure to Obtain Greater Efficiencies from the Existing Asset Base:
 - Increased Asset Availability
 - Leveraging Opportunity Crudes/Feedstocks
 - Adjusting Product Mix to Meet New Market Demands

At the same time, there are increasing environmental demands (such as CO₂ emissions restrictions) placed on refiners and petrochemical producers.

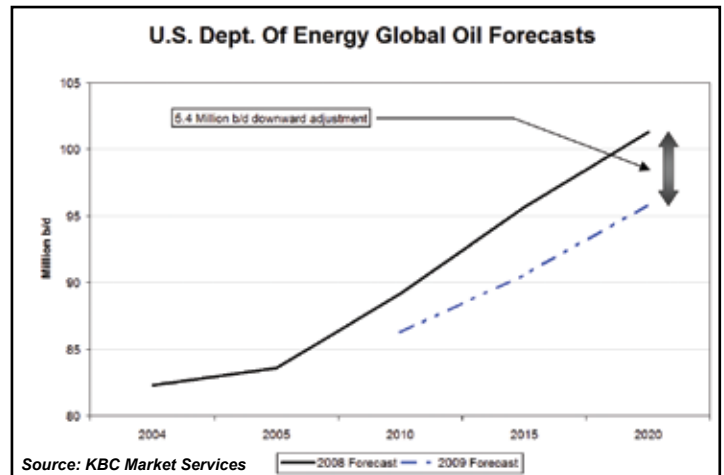


Figure 1 - Global Oil Demand Forecast: 2008 vs 2009

KEY CHALLENGE: CAPACITY ADDITIONS HAVE BEEN DELAYED - NOT CANCELLED

Economic pressures in the refining sector and poor financial liquidity mean that new refining capacity is being delayed, but it has not been entirely cancelled. Net capacity is still being added, particularly in the short term, just as product demand has declined (see Figure 2).

In summary, the capacity situation is this:

- Net capacity additions (new additions minus closures) remain positive.
- Many projects are delayed not cancelled.
- Upgrading additions outpace basic crude additions suggesting severe margin challenges ahead.
- Regional differences exist, with significant capacity additions anticipated in Asia-Pacific.

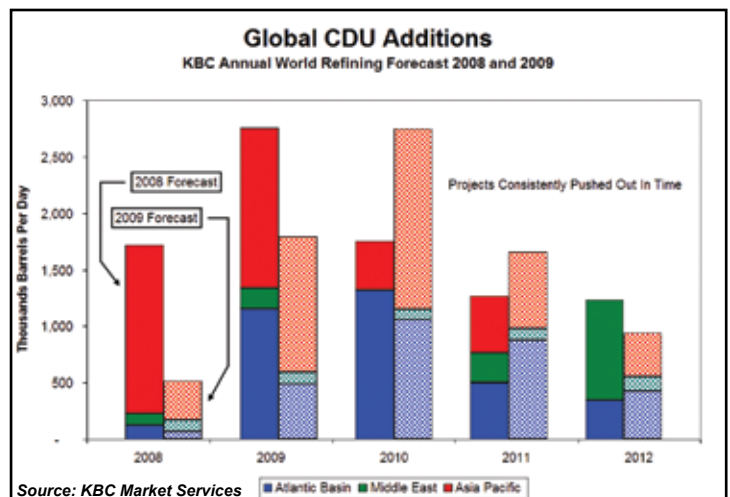


Figure 2 - Global CDU Additions Forecast: 2008 vs 2009

(Continued)

KEY CHALLENGE: GLOBAL SUPPLY/DEMAND IMBALANCE IS EXACERBATED

While the downward shift in demand has delayed the addition of some new capacity, total oil demand has dropped more than the delayed additions. Thus, the short term imbalance between supply and demand has worsened as the demand curve shifts downward (see Figure 3).

To properly adjust for this imbalance:

- Average global operating rates will have to drop nearly 4% just to stay balanced.
- Economic challenges and the correct responses will differ dramatically based on:
 - Geography
 - Product Demand Patterns
 - Governmental Regulations
 - Cost of Capital
 - Import/Export Barriers

NET RESULT

The short term downward shift in demand is not being sufficiently offset by delays in capacity additions or closure of existing capacity. Basic economic theory indicates that when supply exceeds demand, price will be negatively impacted.

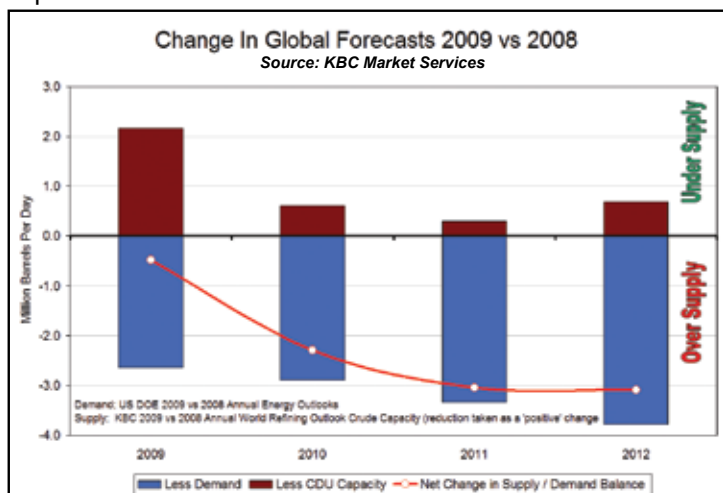


Figure 3 - Global Supply/Demand Forecast: 2008 vs 2009

IMPLICATIONS

- Short term operating rates will need to decline further for supply balance with demand, which would further reduce refining margins (unlikely scenario).
- Marginal producers with the least efficient cost structures will be forced to either temporarily or permanently close (more likely scenario).
- Newer and more efficient refining capacity additions are economically favoured:
 - Efficient capacity will have cost advantages that will offset the transport cost of refined products — particularly when the cost of transport is less. In effect, there are more competitors today (with less and less geographical isolation).
 - The increasing regional integration of feedstocks and products will transcend national boundaries.
 - Example: A facility in India has a 1.2 million bbl/d refinery with integrated petrochemical and electric power operations (a model of the future).
- Older, less integrated, or less efficient capacity is at a risk of competitive disadvantage. Without optimisation designed for this changing competitive landscape, it is at risk of closure.
- Regional imbalances of capacity and product qualities relative to changing demand (for example existing capacity not located in areas of increasing demand or aligned with regional quality requirements such as Euro 5).
- Importation of refined product imports (such as gasoline and diesel) maybe cheaper than manufacturing – especially for markets such as North America and Japan, among others.
- Increasing environmental compliance requirements could exacerbate the competitive position of older capacity.
 - Example: Current tail-pipe emissions taxes under the proposed US Waxman-Markey legislation would encourage non-domestic crude refining and product imports.

Your Company + KBC Produces NextGen Performance[®]

We collaborate with our clients to create unique solutions to their specific challenges. Some of these challenges may include:



Strategic Challenges

- Effective Business Strategy/Decisions
- Increased Return on Investments
- Enhanced Returns on Acquisitions/Divestitures
- Reduced Risk (Strategic, Capital, Other)

Market Challenges

- Enhanced Yields
- Effective Responses to Crude/Feedstock and Product Markets
- Improved Financial Performance
- Market Risk Management

Operating Challenges

- Improved Organisational Effectiveness
- Reduced Maintenance Costs
- Improved Energy Efficiency
- Behaviour-based Reliability/Performance
- Improved Safety Performance
- Operational Risk Management

Environmental Challenges

- Reduced Emissions
- Enhanced Compliance

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