

# Global Finance and the Oil & Natural Gas Cycles

An On Point Industry Issues Supplement

The emerging global recession (or, if you are an optimist, the threat of a global recession) is profoundly impacting the oil and natural gas industries.

There are three recessions underway at this time:

- The global economy
- The oil economy with a likely spillover into the international gas sector and
- The North American natural gas economy

Spillover downturns are also likely to hit (1) in the industries supplying services and products to the oil and gas industry and (2) in the oil and gas producing nations heavily dependent on export revenues.

These recessions are most certainly not entirely independent. Deterioration in the global economy creates the threat of significant declines in oil and natural gas consumption and, in response, oil and natural gas prices fall. Declining oil and gas prices, meanwhile, pose a very real risk of piling on in the sense of worsening the impact of the economic recession on a number of oil and gas exporting countries.

### Where We Are

As of last Friday, Henry Hub gas prices have fallen 50%, WTI is down 51%, the S&P 500 is down 43% and the financial sector is in the midst of a very real liquidity trap.

Some companies have already announced substantial cuts in their capital spending

plans. Also, a number of major world-class projects run an apparent risk of being trapped in budget commitments made at cyclically high costs and oil and gas prices that may be at or near the point of making the projects marginal.

Finally, a wide range of companies have been aggressively building land positions throughout the world with substantial sunk capital to acquire the positions and equally substantial work obligations associated with primary term licenses that will expire in a relatively short period of time.

### A Cyclical Perspective on Markets

There are seven critical economies or markets impacting the global energy industry at any point in time. These are (1) the Global economy including demographic trends, (2) oil, (3) international gas, (4) North American gas, (5) costs, (6) public policy and (7) alternative energy.

The degree of interaction between these markets varies and some are subject to longer-term, nearly independent forces that are often misunderstood.

The link between the Global Economy and the energy sectors is almost purely a demand-side process. Economic growth or decline and certain demographic trends drive demand with sometimes little or no regard for the capacity to supply these needs.

There is little doubt that the risk of a recession that is both severe and global in scope is having a major impact on oil and natural gas prices.

This, however, is not the central issue. The essential issue is whether the downturn in the global economy also marks the end of the upward cyclical pressures on oil and gas prices that we have seen in recent years.

In the oil and natural gas sectors there are recurring long economic cycles that are rooted in several peculiar features of the industries:

- New source supply is inherently lumpy, tending to become available in great surges as new producing areas are discovered or as industry-changing technology enables commercial development of entirely new supply sources. Rising oil or natural gas prices will cause short-term increases in production, or at least stabilization of production, but this is not by itself what causes the cycle to eventually peak.
- These world class supply additions routinely lag behind market signals.
  - It takes time to mobilize resources at a world scale.
  - It also takes an underlying conviction within the industry that higher prices are not transitory.
  - Two other factors cause supply to routinely lag the price signals and thereby amplify the cyclical process: costs and public policy
    - Costs: The industry cycle up and down is inevitably mirrored in cost inflation and deflation pressures but with lags. As costs rise in a cyclical expansion they erode the

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supply response in two ways. First, lead times lengthen and become more unpredictable due to resource constraints. Second, higher costs reduce the pool of resources that would, otherwise, be commercially viable in higher oil or natural gas price environments.

- **Public Policy:** A key source of public policy impact on the cycle is government take and public policy on oil company access to resources. Like other costs, government take rises and falls with the oil and gas price cycles. Access to resources also consistently varies with prices but generally in an inverse relationship and the impact lags the market. The shifts in policy in Venezuela, Russia, and Bolivia are stark examples of this effect and while these are perhaps extreme cases they are not unique. The vast majority of governments have increased taxes and limited access.
- Once new world-class supply sources emerge, economies of scale and infrastructure enable continuing exploitation and supply growth even as oil or natural gas demand is beginning to stabilize or even fall. The price required to trigger initial production from a new world-class supply source is almost always much higher than the price required to stimulate continuing exploitation. In short, once set in motion, the supply response takes on an apparent life of its own, magnifying the potential future price fall.
- A compensating negative force operating on supply is depletion. The irony is that the greater the preceding supply surge that follows new world class resource discoveries or industry-changing technology the more severe depletion's drag on supply will be in the future. What has increased at very rapid rates is also likely to fall at very rapid rates later.
- The oil and gas industries are extraordinarily competitive (far more competitive than policy makers

understand). In competing for new business development opportunities oil companies will always undercut their competitors during a cyclical expansion. This is as true for ExxonMobil or Shell as it is for Chesapeake, Tullow, or Santos. It is also evident in the behavior of the national oil companies trying to feed their energy hungry domestic markets such as CNOOC, Sinopec, or ONGC.

- While oil and natural gas display similar cyclical patterns, they are only imperfectly linked together and they are imperfect substitutes
  - Transportation is a cornerstone of oil demand while natural gas depends much more on space heating, generation of electricity and petrochemicals.
    - The markets for oil and natural gas show different responsiveness to shifts in the global economy
    - Demographics also play a different role because of the different uses of oil and gas
  - Supply characteristics of natural gas (particularly in the North American market) are different in a number of ways including, specifically, a greater capacity to cycle efforts up and down in the gas sector than in oil
  - International gas, with its dependence on LNG or very expensive pipeline infrastructure costs, will tend to display characteristics much more like those of oil.

## Open Questions to Consider

It is certainly understandable how many will see the current environment in terms of heightened risk.

However, overstating these risks or confusing the relatively short-lived effects of an economic recession with the more strategically challenging prospect of an industry-specific cyclical downturn will result in missed opportunities.

In balancing these considerations a number of critical questions emerge:

- How do companies differ with respect to how much capital they have committed, how rigid are these commitments and how dependent are the companies' goals and performance targets on these projects?
- What projects are currently at risk?
- What is the time horizon of expiration schedules on major license holdings? Who has time to wait and who does not?
- How will industry costs respond? Which components of cost will be most responsive to a global recession and industry cutbacks in spending and how should companies respond?
- Have the fundamentals of the oil and natural gas sectors been reversed beyond the near to medium-term?
  - Will prices rebound again after the recession ends?
  - Within the North American market, will shale gas fundamentally alter future conditions, how will this affect international gas and which companies are in the best position to profit?
- Will governments adapt their policies to the new environment, which governments are most exposed to the adverse effects of current conditions, and what are key indicators to watch?
- What other policy changes (CO2 cap and trade rules, for example) should be expected and how will they affect different projects and different companies?

# CONTACTS



Gordon Energy Solutions is an energy consulting firm specializing in competitor analysis, strategic decisions, political risk analysis, and global issues concerning the international, integrated oil & gas industry. We anticipate future opportunities and challenges confronting our clients and assist in exploiting those opportunities.

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