

Welcome to the...

NAPM – New York Commodity Corner

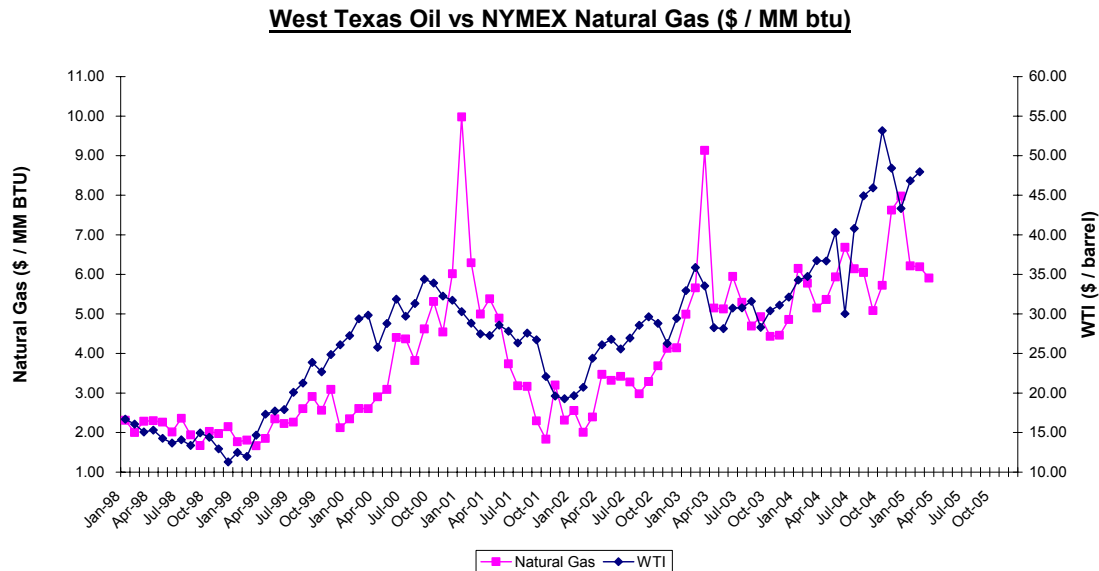
March 2005 Edition

In this feature, we will provide you some commodity pricing history, define trends, discuss forecasts, and most of all, help develop some new insights regarding materials pricing. Crude oil and natural gas updates will be made monthly, all other commodities will be updated on a calendar quarter, or as the specific need arises.

We hope you find this information useful, and as usual, are open to suggestions and questions. Please send your questions / comments to: info@napm-ny.org

So... Is the high price of oil giving you gas???

Probably... at the pump, your heating bills, and for a whole group of downstream materials, we call **plastics**.

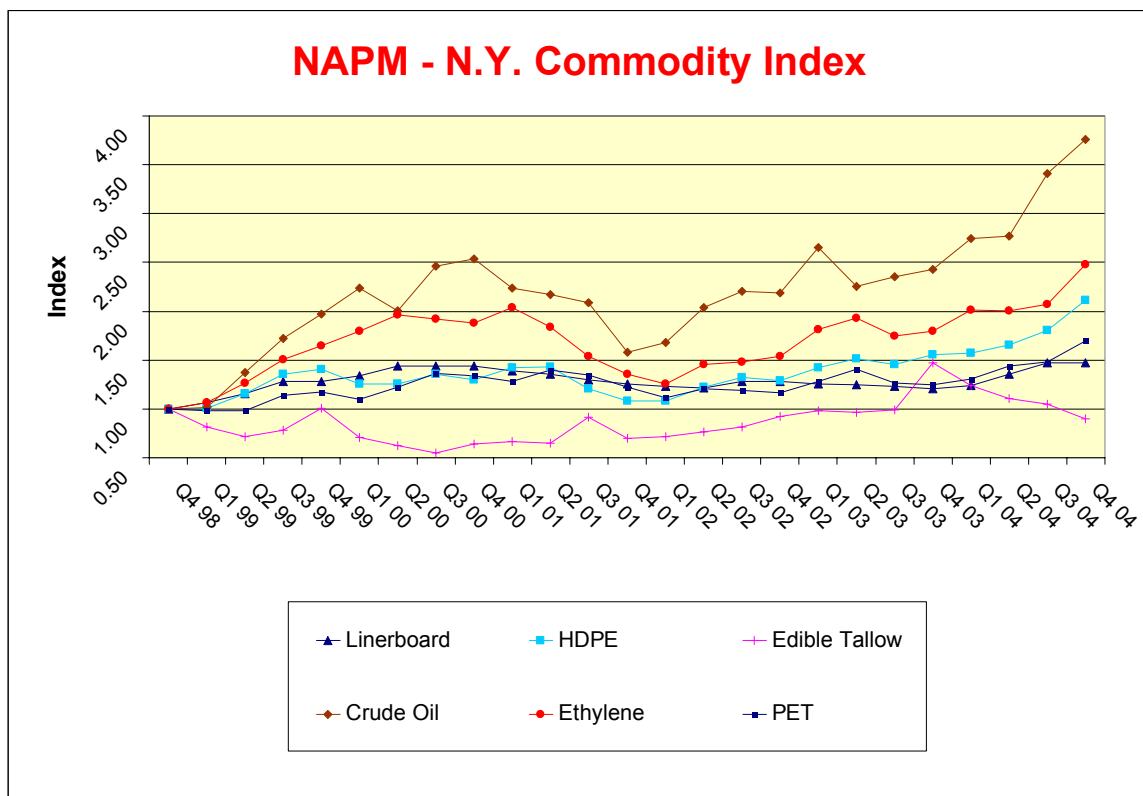


Yes, plastics come from oil and natural gas. About 70% of North America's ethylene production is linked to natural gas (30% to oil). Ethylene is the building block for polyethylene, which drives a variety of the plastics we use daily, but more about plastics later in this report.

Crude Oil & Natural Gas

We all understand the “drivers” of crude oil: supply demand balances, the war on terror, regional instability, weather... but where is it going? Our crystal ball is probably as cloudy as yours, but experts are looking for a full year average in the \$44 to \$48 per barrel (bbl) range. Clearly, volatility will remain until geo-political conditions stabilize. For certain, the \$28/bbl target set by OPEC is a thing of the past.

Natural gas (for the most part) is a domestic natural resource. Drivers are supply / demand, weather, and to some extent, sympathetic movement to oil. Full year average pricing in 2004 was \$5.81/MMBtu (MMBtu = Million British Thermal units), while current full year 2005 forecasted average is running in the low \$6.00/MMBtu range. Inventories remain healthy at levels about 12% higher than the five year average, and may improve somewhat should warmer weather persist.



We’ve already spoken to crude oil and natural gas, so let’s focus some attention in the “downstream” materials.

Ethylene

Ethylene is the key building block chemical used in the manufacture of plastics, surfactants, solvents, etc... As mentioned above, about 70% of North America’s ethylene is derived from the natural gas stream. Although tied to natural gas and oil costs, ethylene is also very subject to supply / demand swings. Downstream end products (plastics, solvents, glycols, etc) can compete for the available pounds of ethylene, thus driving ethylene pricing. Full year 2004, ethylene averaged \$.35/pound, while current 2005 full year average forecasts range from \$.40 to \$.45 per pound.

HDPE

High density polyethylene is used in wide variety of applications; most common at home would be plastic milk containers, liquid detergent bottles, etc... and industrial applications such as plastic pipe for natural gas transmission and a myriad of automotive applications. As one would assume by the name, HDPE is heavily influenced by ethylene costs, and it also has its own supply / demand cost influences. Full year 2004 average transaction price ran at \$.60/pound for bottle grade material, while the 2005 forecast is ranging from \$.63 to \$.67/pound. This market is “tight” due to increased demand, reduced inventories, and manufacturer limitations.

PET

Bet you can't say “polyethylene terephthalate” three times fast!

The good news is that we all have great familiarity with PET. This is the plastic used to make soda bottles, water bottles, plastic beer bottles... and is also used in the manufacture of carpeting, clothing, etc... We touch PET daily.

Now the bad news, PET has risen in cost steadily over the last two years, and there appears to be no relief in sight (for the short term). Average full year price for 2003 was in the mid \$.60/pound range. In 2004, the average moved up to the mid \$.70/pound range, and current forecasts show a 2005 average price in the low to mid \$.80/pound range...ouch. PET pricing is tied to ethylene and to xylene markets, supply / demand balances, and it has historically had a “seasonal” influence (increased consumption during the summer due to water and soda bottle demand).

Edible Tallow

A “by-product” produced from the slaughter of cattle (beef).

Tallow is used in a wide variety of applications, from the manufacture of soaps and cosmetics, to animal feed, cooking grease, and fatty acids (which have their own downstream uses). Tallow pricing is heavily influenced by supply / demand (cattle slaughter) as well as competing applications (like corn, when looking at animal feed or other vegetable oils). Other than supply / demand, “angst” influences the market under the guise of “mad cow disease” (BSE or bovine spongiform encephalopathy).

Linerboard

Linerboard is the main component and cost driver in the manufacture of corrugated shipping containers. Linerboard is heavily influenced by supply / demand balances, inventories, conversion cost (energy), exports (foreign exchange driven) and industry consolidations (fewer, bigger players). As a whole, prices move in a disciplined approach, both up and down.

Prices have risen steadily over the last two year period, up from an average of \$360 – 370/ton in 2003 to the full year 2005 projection ranging from \$435 to \$439/ton (down from the current \$470/tn average).