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Special Feature

Short-Term Commodity Price Trends and Forecasts

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Trinidad and Tobago has traditionally been dependent on export-oriented production from an enclave sector to provide the impetus for economic development. Since the establishment of fertilizer, methanol and iron and steel plants commencing in the 1980s and natural gas export via LNG in 1999, developments in these markets have significant implications for Trinidad and Tobago's economic fortunes. Over the past few years commodity prices have been trending upwards and this trend has accelerated in the second half of 2007 and so far in 2008. Given this reality, an examination of current market trends in the natural gas, ammonia, methanol and iron and steel market, their impact on NGC and by extension Trinidad and Tobago, is useful for both national and company policy formulation and in making investment decisions.

Impact of the energy sector on the economy

The improved performance in the Trinidad and Tobago economy in the current decade has been based on growth in the energy sector – mostly growth in the gas sector. As no detailed economic breakdown as yet exists between growth attributable to oil and growth attributable to gas, any net benefit to the economy from natural gas has to be inferred. However the general trend in prices for commodities exported by Trinidad and Tobago since 2002 has been upwards, with a corresponding effect on GDP, exports and government revenues. Table 1 shows the impact of the energy sector on selected economic indicators, while Table 2 shows the output of selected gas-based industries.

LNG and natural gas

The initial decision to build an LNG plant to export natural gas as LNG took place in 1995, with the first LNG output from the Atlantic LNG facility in 1999. Since then, three additional plants have been built, with the four plants having a net capacity of 15 million tonnes of LNG per year. For the last few years Trinidad & Tobago/Atlantic LNG has been credited with being the largest supplier of LNG to the US market, averaging 65% or higher of their annual imports. While Atlantic volumes are also contracted for supply to Spain, and individual cargoes have landed as far afield as Japan, the

Table 1

Impact of the energy sector on the Trinidad and Tobago economy

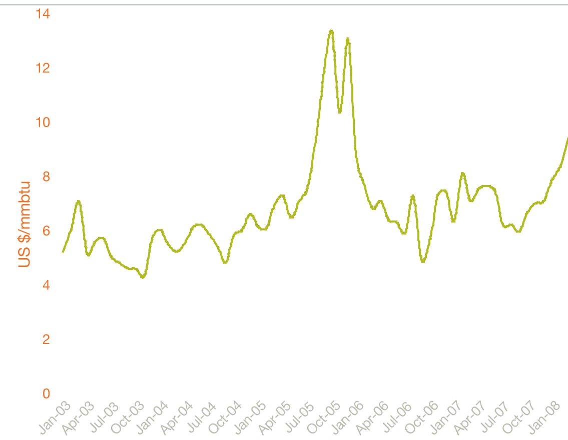
	2002	2003	2004	2005	2006	2007
Energy GDP/Total GDP	26.2	36.2	37.4	41.9	45.1	43.0
Energy revenue/Total revenue	27.9	42.7	42.9	53.3	60.3	56.0
Energy exports/Total exports	73.3	81.5	80.3	88.9	91.0	89.4
Energy employment/Total employment	3.4	3.2	3.6	3.4	3.5	4.0

Source: Central Bank of Trinidad and Tobago

reality is that shipping logistics make the Atlantic basin, and the US in particular, the natural home for Trinidad LNG with Henry Hub its base reference price. In recent months, US gas prices measured at Henry Hub have risen from just under $6/mmbtu in September 2007 to $9.39/mmbtu in March 2008, a rise of some 57%. Key demand factors contributing to the price increases included rising crude oil prices, severe winter weather, the resumption of industrial load after the winter season. According to the April 2008 EIA Short Term Energy Outlook, the Henry Hub spot price is expected to average about $8.59 per mcf in 2008 and $8.32 per mcf in 2009. Long-term factors that are expected to influence the US gas market revolve around supply concerns, both as they relate to oil and natural gas. One manifestation of this has been the recent decoupling of the traditional energy equivalency relationship between oil and gas prices.

Figure 5.1:

Henry Hub gas prices: 2003-2008



Source: Natural Gas Week, various issues.

> The natural gas sector has had a compound annual growth rate in gas usage of over 15% for the last decade, mostly as a result of LNG.

Locally, the natural gas sector has experienced a significant rise in output in the current decade as a result of new LNG facilities coming on-stream, along with new gas-based plants. The sector has had a compound annual growth rate in gas usage of over 15% for the last decade, mostly as a result of LNG. Current gas output and usage averages 3.8 bcf (billion cubic feet) per day. In the medium-term, the sector is expected to further increase its consumption as a result of the commissioning of new electricity generation facilities, new industrial and petrochemical plants along with other new downstream consumers. Figure 5.1 shows the trend for Henry Hub natural gas prices from 2003 to 2008.

Ammonia

The main factors that influence the prices and outlook for ammonia are trends and demand for fertilizer for agricultural use in leading agricultural economies, most notably the US. In that country, the link between gas prices and fertilizer prices has weakened since 2006 as a result of grain-driven demand and tight nitrogen supplies. Moreover, the shift of ammonia production to offshore locations has meant that US gas market conditions now bear little relationship to nitrogen fertilizer prices. Global corn and wheat stocks are at 30-year and 60-year lows, respectively and are unlikely to significantly change even with record-sized crops in 2008. The medium-term corn price outlook remains strong due in part to the continued expansion in ethanol production. Elsewhere,

Table 2

Production of selected gas-based industries in Trinidad and Tobago, 2002-2007

	Ammonia ('000 metric tonnes)	Methanol ('000 metric tonnes)	DRI ('000 metric tonnes)	Billets ('000 metric tonnes)	Wire rods ('000 metric tonnes)
2002	3,985.2	2,829.0	2,316.4	817.0	704.5
2003	4,317.8	2,845.7	2,275.0	896.0	640.9
2004	4,428.1	2,750.8	2,336.5	789.8	616.2
2005	5,166.4	4,694.8	2,055.3	712.0	472.1
2006	5,128.5	6,015.6	2,071.5	673.0	485.7
2007	5,192.3	5,933.4	2,062.8	694.6	510.3

Source: Central Bank of Trinidad and Tobago

high gas prices and supply disruptions have been the main contributory factor to high ammonia prices. As a result, ammonia prices have skyrocketed on disrupted supply, with Chinese and Indian agricultural demand playing a major role in supply tightness. The average ammonia price for the three months ending March 2008 (fob Caribbean) was US $526.2 per tonne.

In the immediate future, higher natural gas prices in Europe and the former Soviet Union appear to support higher floor prices for nitrogen. The overall nitrogen fertilizer supply/demand balances remain tight due to limited new capacity additions; FSU producer discipline due to rising natural gas costs; and increased global demand for nitrogen-intensive grains. Global ammonia capacity use is expected to remain near 85% through 2010, based on industry estimates that global ammonia consumption is expected to increase by about 2.3% in 2008 and 2009. Of the new plants scheduled to start up in 2008, nearly half of this new capacity is in Iran, where construction has been delayed due to shortages of labor and materials. Floor prices for ammonia at the next cyclical low point (expected in 2011-2012) are expected to be driven by the marginal costs of FSU ammonia exporters struggling with production costs caused by gas market liberalisation.

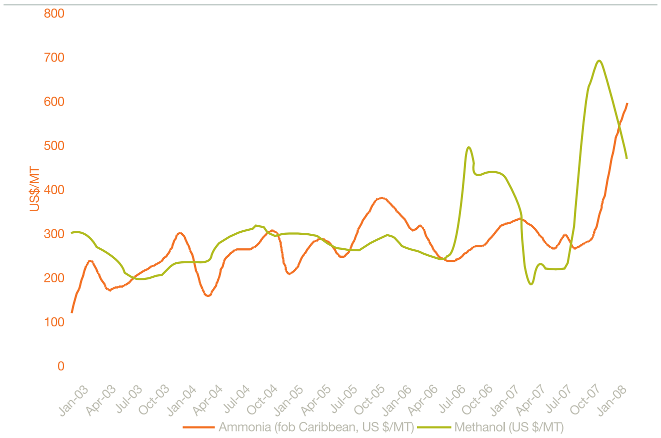
Methanol

Methanol is a basic commodity that goes into a number of feedstock used in industrial production, and is used to create added value to basic industrial products. Traditional uses include acetic acid production, formaldehyde manufacture (preservatives and particle board), use in gasoline additives as well as for agricultural use. More recently, the use of methanol for dimethyl ether (DME) as an extender to LPGs, direct blending of methanol into gasoline, bio-diesel and fuel cells has experienced a significant increase. Global methanol consumption reached 40.3 million metric tonnes in 2007 and is projected by some industry analysts to grow by nearly 11%, to 44.7 million metric tonnes by 2010.

The global methanol market is currently displaying divergent price trends, with North American and European prices trending downwards while Chinese prices are rising. The main impetus for the falloff in methanol prices in the US and Europe is reduced demand for traditional methanol derivatives. Formaldehyde demand remained driven by overall economic growth and the collapse of the housing market in the US and expectations for sharply reduced growth in the US have stifled methanol demand. On the other hand, while demand patterns in China are consistent with global trends, tight supply conditions in the China market has contributed to the divergent price trend. While industry analysts predict that there may be an upward realignment of methanol prices,

Figure 5.2:

Petrochemical prices 2003-2008



Sources: Fertilizer Week, various issues; Green markets, various issues; Methanol Market Report, various issues

Table 3

Selected Annual Commodity Prices 2004-2008

	2004	2005	2006	2007	2008e
Ammonia (US$/tonne, fob Caribbean)	252	286	284	301	493
Methanol (US $/tonne, US Gulf)	279	283	328	374	577
Wire rods (US$/tonne, cif Latin America)	464	410	446	570	600
Henry Hub natural gas (US$/mmcf/d)	5.76	8.79	6.79	6.95	8.12

Sources: Fertilizer Week, various issues; Green markets, various issues; Natural Gas Week, various issues; Methanol Market Report, various issues; MEPS Steel Prices Online, Metal Bulletin, various issues.

this will occur after the third quarter of 2008 at the earliest. Methanol prices for the three months ended March 2008 (US Gulf) averaged US $533/tonne.

One positive effect of the high commodity prices over the last few years on the local gas sector has been that NGC and some upstream gas producers have benefited from increases in natural gas price netbacks from volumes sold to ammonia and methanol facilities. This is by virtue of the fact that NGC, some time ago, adopted a pricing formula for gas sold to petrochemical plants that incorporates the price of the commodity sold as a significant component of that formula. The current high prices for ammonia and methanol (both commodities flirting with historical highs over the past year) mean that the gas sold by NGC to these plants nets a significantly higher price than would obtain in a more traditional petrochemical market. Indeed, on occasion the gas price netbacks to Trinidad and Tobago from these sectors rival or exceed those achieved by LNG sales directly into the USA. Chart 5.2 shows the movement in petrochemical prices from 2003 to 2008.

Iron and steel

Steel price increases in 2008 have been driven by a tight supply chain, raw materials price escalation and structural change. Speculation on steel prices has also kept prices high. Despite the slowdown in the US economy, the appetite for steel is expected to remain robust in 2008, because of increasing infrastructure spending in emerging countries such as Brazil, Russia, India and China and in the Middle East, where steel use accounted for 40% of global usage in 2006, according to the International Iron and Steel Institute. They forecast that it will rise to 45% in 2008. Large scale public investment in emerging markets provides the basis of a strong steel demand outlook in 2008, but a possible slowdown in the US could have a negative impact on demand. Slowing industrial production cycles, on the back of weaker manufacturing, housing and auto sector performance, will likely impact adversely on steel demand in OECD countries. The result of these factors has been the rapid increase in steel prices in 2008, especially among derivative products, such as steel billets and wire rods.

As an open economy experiencing a rapid rise in construction expenditure, Trinidad and Tobago is not immune to the effects of the increase in prices. In keeping with ArcelorMittal's pricing trends in other countries, local downstream steel producers can expect to pay higher international prices for steel billets and wire rods. Moreover, the higher steel prices are expected to impact ongoing construction and infrastructure projects, leading to higher project costs, with an expected impact on inflation. In the future, the local iron and steel sector is expected to continue its growth as Essar Steel is expected to complete the construction of a 2.5-million tonne plant in Trinidad and Tobago at a cost of some $1.76 billion. The plant is expected to be operational by 2010. Moreover, the State through the NEC is expected to get involved in aluminum production through the Alutrint project, a joint venture between Trinidad and Tobago and Venezuela to develop a 125,000 tonne per year aluminum smelter. This plant is expected to be operational by 2010-2011. Table 3 shows trends in commodity prices from 2004 to 2008.

Conclusion

The general outlook for commodities in 2008, therefore, is positive. With continuing strong demand for natural resources and commodities generally, prices are expected to remain robust over the next few years. Moreover, supply-side realities for these and most other commodities are that stock levels remain near record lows, meaning that any output disruption has a disproportionate effect on prices. Given the current turbulence in the financial markets, commodities provide strong performance and a relatively safe haven for investment capital, especially in an environment of market volatility, rising inflation and political uncertainty. iQ