INSIGHTS GLOBAL

PJK Research Note

ICE Gas Oil in Backwardation:
Analysis of current situation and future implications

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1 Introduction

This week the term structure of ICE gas oil futures definitely turned from contango to backwardation. Tensions in North-Africa and the Mid-East and the Tsunami and resulting nuclear risks in Japan caused the market to turn. As previously explained in our e-paper "Oil Futures Forward Curve Dynamics" a backwardation implies tight markets with low and/or decreasing inventory levels. But when looking at ARA oil inventory data it seems as though gas oil stocks are relatively high. So does the economic theory fail the test? The answer is no! Our research tells you why.

2 Forward curves and calendar spreads explained

Before we go further we will give a quick refresher on forward curve dynamics. The best way to explain this is by looking at calendar spreads. See figure 1 below which displays ICE gas oil calendar spreads from September 2006 till now.

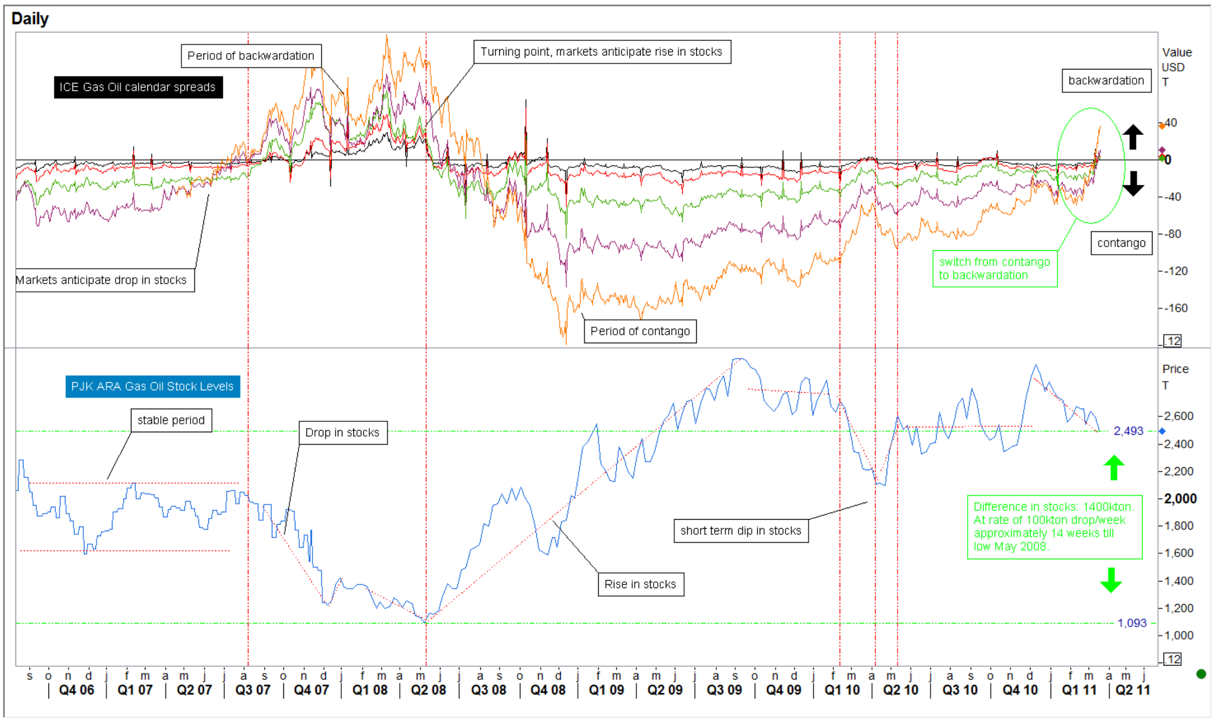

Figure 1: ICE gas Oil calendar spreads versus PJK ARA gasoil stocks

As can be seen there is a link between gas oil inventory levels and calendar spreads. A tighter market with decreasing and/or low inventories is associated with a backwardation, whereas abundant supply and high inventory levels are associated with a contango. For a more thorough description of the logic behind this please download the specific "forward curve theory e-paper" from our site.

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3 Current situation analysed

The recent switch from contango to backwardation however seems to go counter to this logic. Normally at these high inventory levels a backwardation should not occur. Traders would sell their inventories and this would pressure spot prices causing the differential between physical spot prices and gas oil first month futures prices to decrease. Markets would anticipate this mechanism and this would pull the forward curve back into contango. But something different is happening. Although spot gas oil is trading at a discount to ICE gas oil futures the discount narrowed recently to $2.00. At the same time diesel premiums decreased. ARA gas oil inventory levels have decreased recently but not at an alarming rate. This week's stocks decreased by approximately 100ktons. At this rate it would take more than fourteen weeks to reach levels that occurred in May 2008 and at that level still no shortage was applicable. This means that the forward curve should be in contango till at least June 2011. So how is it possible that the whole forward curve is in backwardation at these high inventory levels?

The answer lies in the concealed shift from gas oil 0.1% to ULSD. Two large European markets for gas oil, the heating oil market in Germany and the inland barge bunker market, both recently switched from gas oil 0.1% to ultralow sulfur diesel quality fuel. This transition led to less tank capacity being utilized to store the normal gas oil grade. Because of the definition of the 'PJK ARA gas oil' stocks this was however not visible. Our data aggregates gas oil and diesel stocks in one number!

From storage companies we have heard that most of the so-called 'gas oil' stocks are currently in fact diesel stocks. This means that there is far less gas oil supply than one would expect looking at the inventory levels and this explains the formation of a backwardation forward curve structure.

4 Short to medium term implications

The switch from contango to backwardation will influence ARA and European oil trading. From a theoretical point of view we would expect traders to minimize gas oil and distillate stock levels. ARA gas oil stocks are already decreasing and we are hearing from markets that oil majors with German refining assets are unloading stocks and dumping gas oil and middle distillates on domestic markets. This will result in less demand for ARA gas oil from hinterland markets. Barge freight rates in the short run will most likely suffer if less is imported.

To keep the backwardation in place demand coming from outside Northwest Europe must remain high. Currently gas oil is being exported to the Mediterranean. Due to the fall of Libyan crude production Med refineries are producing less oil products. Also much rumours and speculation is going on about the impact of the natural disaster in Japan. Television shots from Japan after the quake showed refineries on fire. Several have been damaged and many refineries are down amounting to a capacity loss of approximately 2.2mbpd. That loss has to be compensated by other regions and may result in extra product being shipped from the ARA to the Far-East.

For the medium term several scenarios are possible that will result in a persisting backwardation term structure. If Gadaffi remains in power Western oil companies active in Libya might find themselves unwelcome and oil production might suffer as a result. This scenario however seems less likely after the UN Security Council Resolution that was passed last night, which allows the use of force to protect Libyan civilians. The scenario in which Gadaffi's regime will be toppled seems to gain significance and this scenario will serve Western interest best.

Also elsewhere in the Arabian region unrest has not disappeared. With tensions between Sunni en Shi'ite groups mounting in Bahrain Saudi-Arabia might also find it in similar situation. The oil rich regions in Saudi-Arabia are populated with mainly Shi'ites and this forms a great risk for stability in world's biggest oil exporter. The deployment of Saudi soldiers to help the regime in Bahrain with its hard-line stance against the Shi'ite protesters may backfire at home.
How things will develop is however hard to predict at this time. So be aware of the risks, try to understand the implications of various scenarios and be prepared to take swift action when scenarios materialize!

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5 PJK Market Analysis Services

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