ASPO-Australia

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Lack of reliability of ABARE's future oil price forecasts

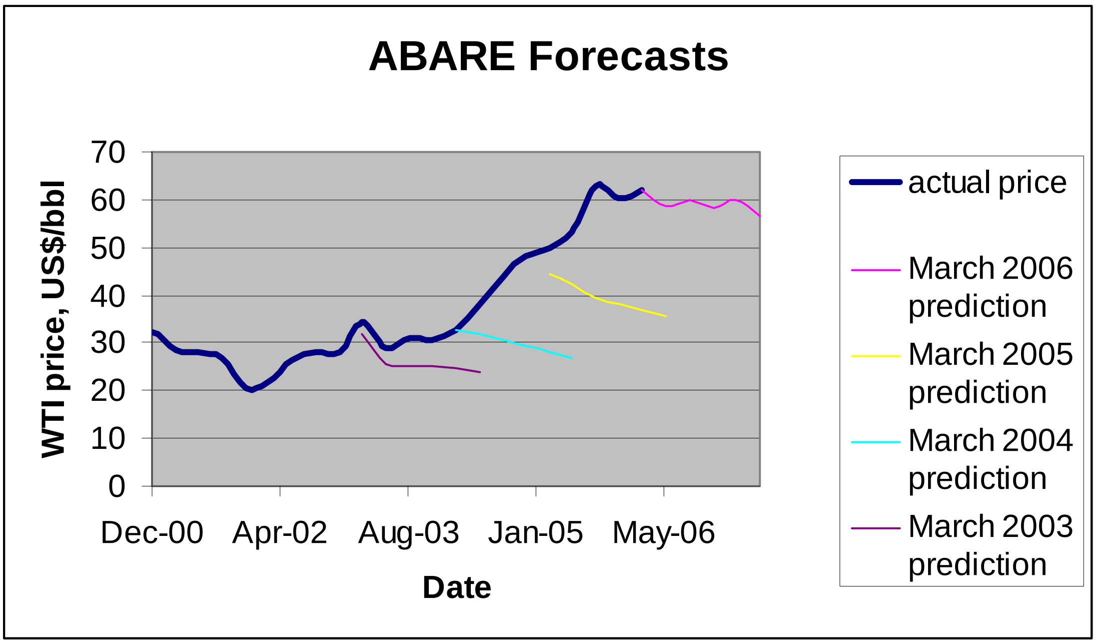
SUMMARY

ABARE's future oil price prediction pattern is generally the same: *the oil price will gently recede from its current value.* This means that in situations where the actual oil price is trending upwards, ABARE forecasts will tend to undershoot, and the further the forecast goes into the future, the greater the gap will be.
In short, ABARE can predict the oil price under conditions where the market remains stable, because under such conditions the price *will* remain roughly constant or gradually recede. Unfortunately, stability (or lack thereof) in the oil market appears to have been totally unpredictable, which ultimately renders ABARE's forecasts unreliable.

INTRODUCTION

Since mid-2002, ABARE has consistently under-predicted WTI oil price. The further the predictions go into the future, the greater is the undershoot. This appears to be due to a trend where prices are consistently forecast to remain constant or move downward from the current price.

Prices are almost never forecast to rise, even when the dominant trend in actual prices has been upward for some time. It therefore appears that there is an ongoing unwarranted sense of optimism in ABARE regarding the stability of the oil market.

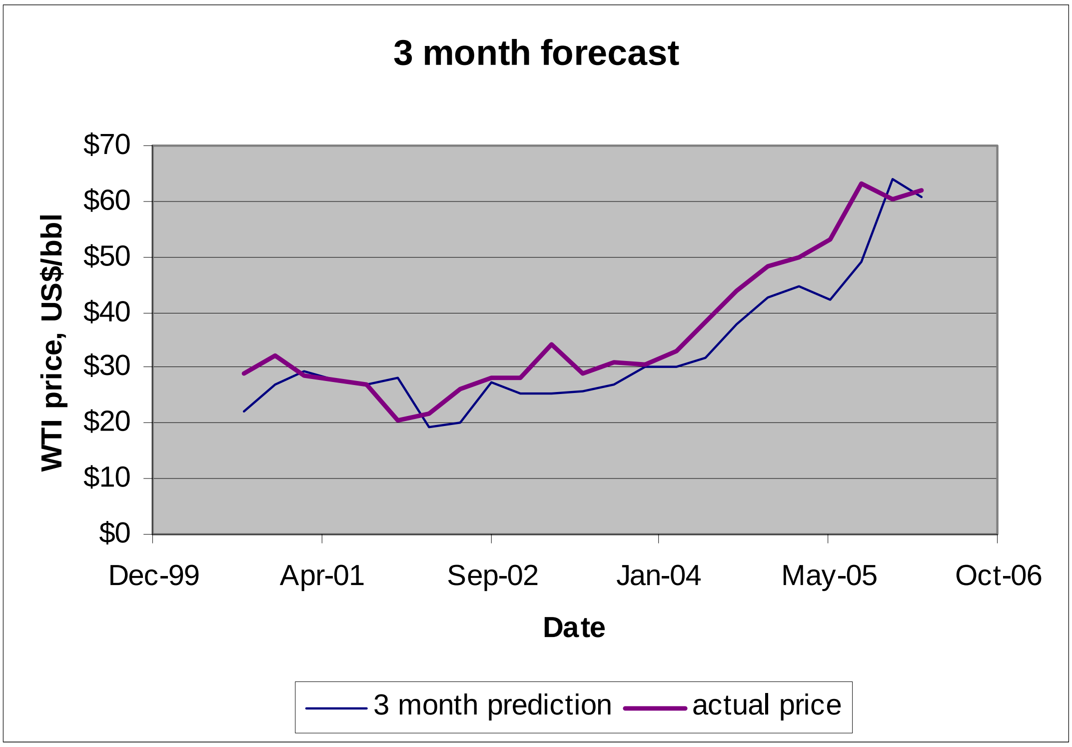


It must be concluded that at any point in time, ABARE believes that the "current price" is at some sort of peak, and that it will gently recede. This ideology has apparently not been updated or questioned, despite the last 3 years of consistently rising oil prices.

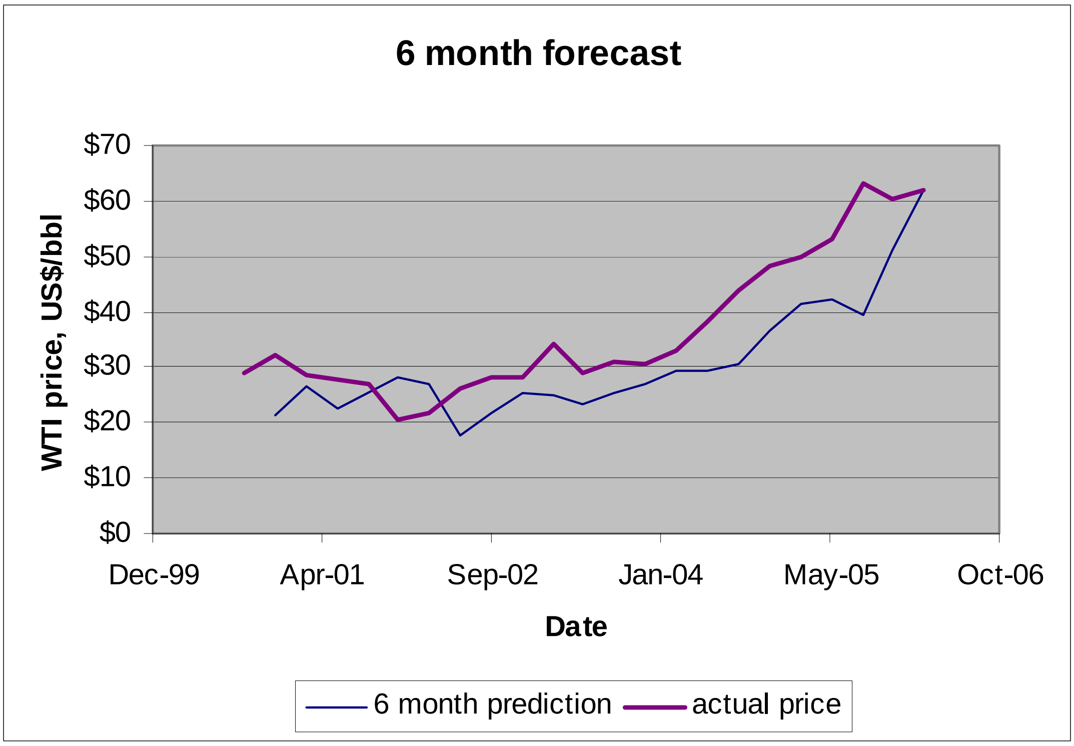
FORECAST GRAPHS

How the forecast graphs work:
The line called "3 month prediction" is a plot of all prices that were predicted 3 months in advance. In other words, the price shown for March 2006 was taken from the December 2005 Quarterly Report (i.e. 3 months before), and the price shown for September 2005 was taken from the June 2005 report, and so on.
Each prediction line is plotted with the actual price as a comparison. It can be seen that as predictions go further into the future, the graphs tend to exhibit more and more divergence. For instance, the graph of 3 month predictions shows a reasonably good match, whereas the 9 and 12 month graphs show a large gap between the rising actual price and the predicted prices.

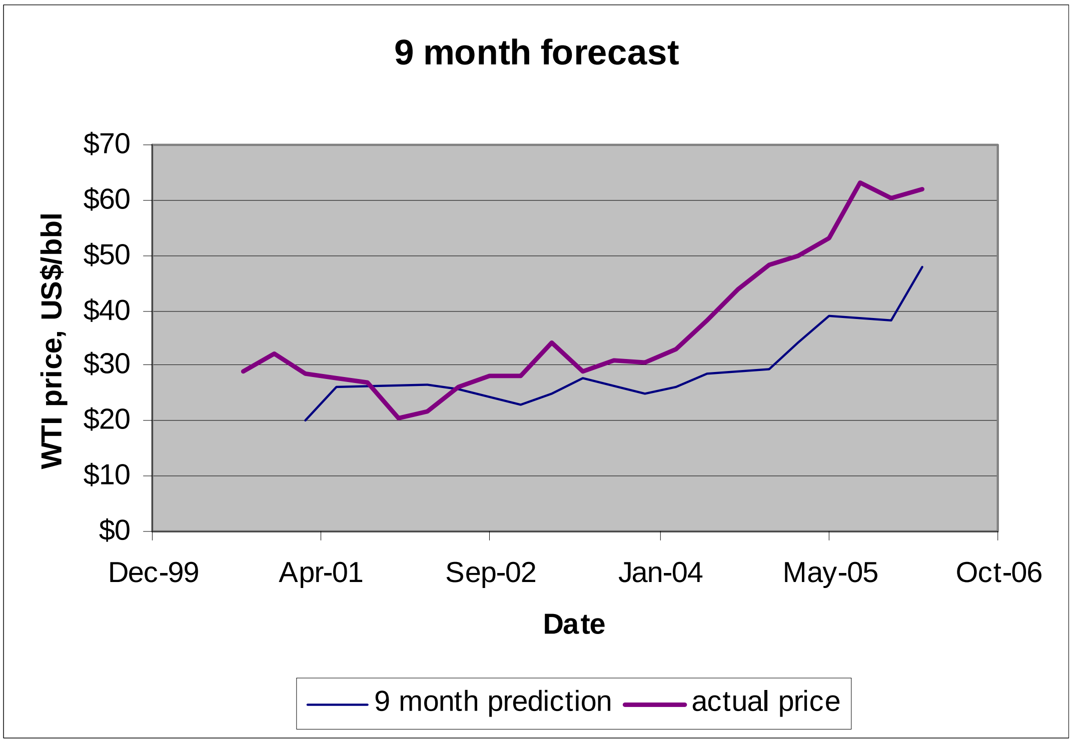
Looking at all forecasts made 3 months into the future, we see that the 3 month prediction price is, on average, about 5-10% lower than the actual price (we will refer to this as "average undershoot").



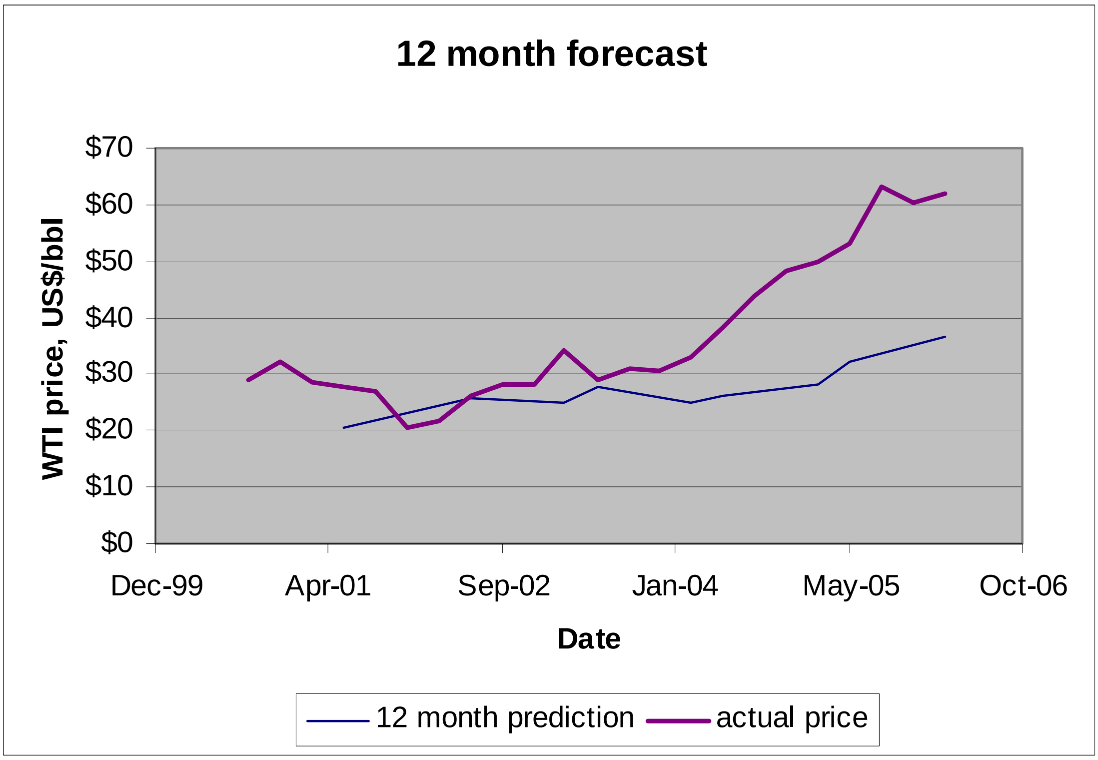
Looking now at forecasts made 6 months in advance, we see the gap between predicted and actual price widening. Overall, the average undershoot is about 15% of actual price, but over the last 2 years this has been getting wider (averaging over 20%, with a maximum of almost 40%). Evidently, ABARE's 6 month predictions do not cope well in rising price conditions.



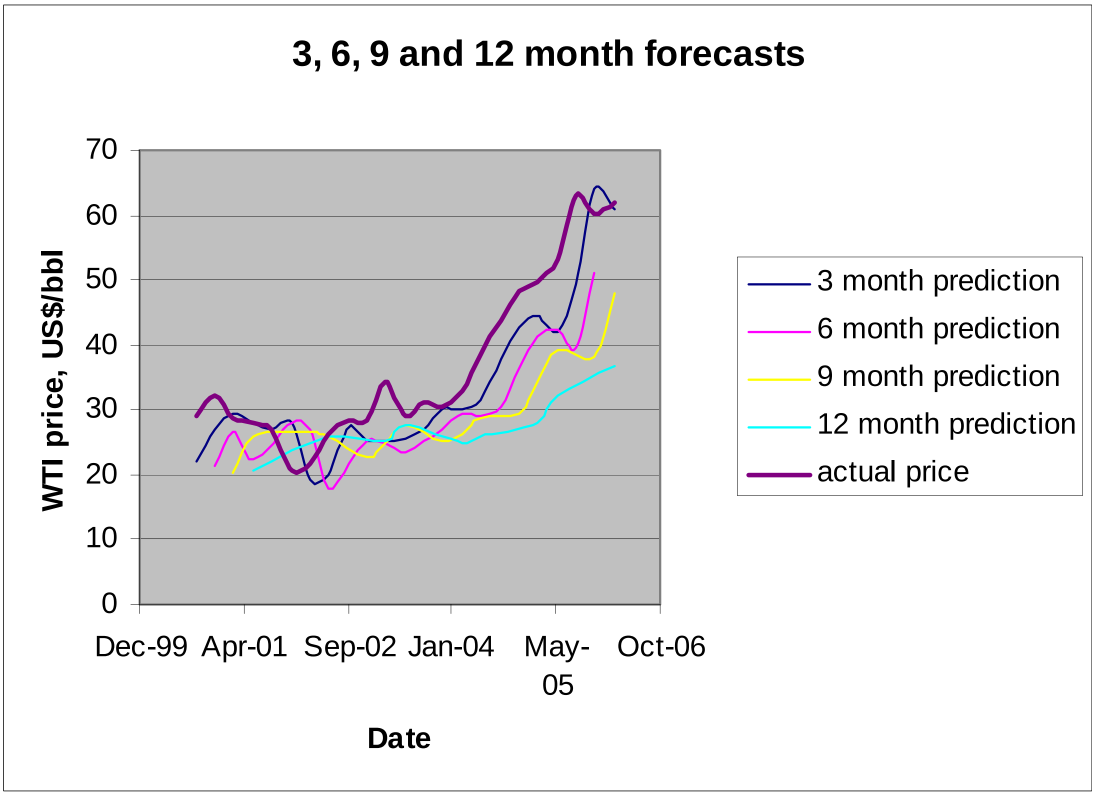
The 9 month forecasts show even more diversion from actual prices. Overall average undershoot is about 20%, and over the last 2 years the average was 30%.



Prices that are forecast one year in advance are very unreliable in conditions of rising actual prices. Overall average undershoot was over 25%, with the average over the last 2 years being close to 40%.



The final graph is simply the previous 4 graphs combined:



CONCLUSION

ABARE's prediction pattern is generally the same: *the oil price will gently recede from its current value.* This means that in situations where the actual oil price is trending upwards, ABARE forecasts will tend to undershoot, and the further the forecast goes into the future, the greater the gap will be.

In short, ABARE can predict the oil price under conditions where the market remains stable, because under such conditions the price *will* remain roughly constant or gradually recede. Unfortunately, stability (or lack thereof) in the oil market appears to have been totally unpredictable, which ultimately renders ABARE's forecasts unreliable.

EXAMPLE

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Medium term simulation results using ABARE's oil market forecasting model

Base case forecast

ABARE's oil market forecasting model indicates that, in the base case, world oil prices will average around US$41 a barrel (WTI) in 2005, before declining to around US$30 a barrel in real (2005 dollar) terms by 2010. In real world trade weighted price terms, this is equivalent to US$34 a barrel in 2005 and around US$25 a barrel in 2010.

Price sensitivity to permanent supply disruptions

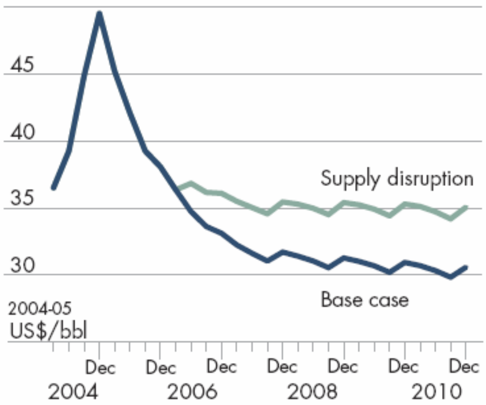
Recent developments in world oil markets have demonstrated the responsiveness of global oil prices to actual and potential supply disruptions. In an attempt to examine the sensitivity of world oil prices to a permanent supply shock, ABARE's oil market forecasting model was used to estimate the effect on world oil prices of a permanent 1 million barrel a day reduction in global oil production. In this simulation, the reduction in world oil production is assumed to commence in 2006. It is assumed that no oil producer is able to expand production to cover this loss compared with the base case.

Lower world oil production will lead to a decline in world oil stocks and place upward pressure on prices. In this scenario, global oil prices, in WTI terms, are projected to increase significantly, compared with the base case. World oil prices, in 2005 dollars, are projected to average around US$35 a barrel by 2010, nearly 15 per cent higher than in the base case.

The simulation results highlight the sensitivity of oil prices to changes in world oil production over the medium term. Sufficient spare production capacity to cover actual or potential supply losses will be an important determinant of oil price movements over the outlook period.

Permanent supply disruption

Quarterly, West Texas Intermediate



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APPENDIX

A copy of this collation comparing ABARE's forecasts with actual prices and the New York Metals Exchange futures trading (NYMEX) was tabled by ASPO-Australia at the Senate Inquiry hearing in Perth on 12th April 2006