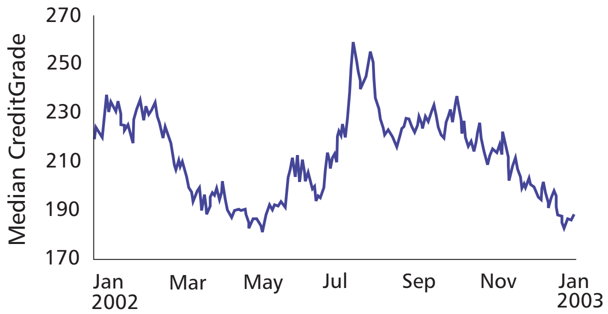
Making the grade

As credit risk is now a major concern in the energy industry, *EPRM* takes a look at CreditGrades, a risk measurement tool from risk analytics firm RiskMetrics

Figure 1: **Median CreditGrade for the energy sector**



Top CreditGrade movers, as of Jan 10, 2003

Company	CreditGrade	Change (from Feb)
Widening		
Forest Oil Corp	224	+19
Lone Star Technologies	334	+14
Transocean	237	+11
Tightening		
Dynegy	1,769	–274
Williams Companies	1,460	–173
Chesapeake Energy Corp	601	–79

Given the turmoil in the energy industry over the past year, there has been increasing concern about credit exposure in general and counterparty risk in particular. As a result, the industry has been looking for more transparent, reliable and timely credit risk measurement tools.

One such tool is CreditGrades (see box). It was introduced last year by risk management and analytics firm RiskMetrics and many firms have started incorporating it into their risk management processes.

Figure 1 shows the history of the median CreditGrade of the US energy sector over the past year. The 'top movers' table above shows the US energy companies – those with market capitalisation greater than $400 million – that experienced the biggest changes in CreditGrade over the past month.

Following a bad year in 2002, and against the backdrop of possible war in Iraq and the strike in Venezuela, the month to January 10, 2003 saw a general improvement in the credit quality of energy-related names. The biggest improvements came from Dynegy, Williams and Chesapeake, where spreads all tightened significantly by 274, 173 and 79 basis points (bp) respectively.

Dynegy recently issued a better-than-expected earnings forecast, which convinced some investors that the firm may avoid bankruptcy. However, with its high debt load there is still a more-than-50% chance of bankruptcy in the next 12 months, according to the CreditGrades model. Williams has also had some recent good news, having settled most of its outstanding litigation with the state of California right at the end of 2002, which brings its CreditGrade down to 1,460.

On the negative side, spreads for Forest Oil, Lone Star and Transoil widened to 224, 334 and 237bp respectively, but all by less than 20bp, reflecting the general trend to improved quality in the sector, which has come off a 250+ basis-point high in July 2002 down to about 190bp now. EPRM

How CreditGrades are determined

CreditGrades provides a measure of a company's default risk through a methodology that has been endorsed by Deutsche Bank, Goldman Sachs, and JP Morgan. CreditGrades was developed by risk management and analytics firm RiskMetrics Group.

The product includes a data set that covers more than 10,000 companies and it expresses a company's default risk in the form of a CreditGrades score, which corresponds to a theoretical credit default swap premium or a bond spread to London interbank offered rate (Libor).

CreditGrades can be used as an early indicator of potential changes in counterparty credit in various contracts. By monitoring changes in these companies' CreditGrades, users can take action to mitigate the impact of worsening counterparty credit – such as hedging via default swaps or requesting collateral.

CreditGrades can also be used by more sophisticated users to factor counterparty credit risk into the pricing of new contracts and to maintain credit 'watch lists' of companies they are interested in monitoring.

There are many examples of the usefulness of CreditGrades as a leading indicator. Figure 2 shows the trend in the model implied default probability of Enron versus Standard & Poor's implied default probability. The CreditGrade spread clearly widened significantly from August 2000 onwards, and the default probability implied by the rating only 'caught up' late in 2001.

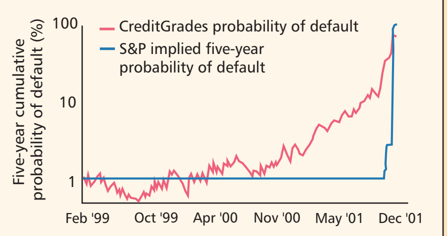


Figure 2: CreditGrades v. 5-year probability of default for Enron

CreditGrades is a structural model that uses equity market and balance-sheet data to estimate credit spreads and default swap premiums. Structural models are based on the concept that debt and equity can be viewed as options on the underlying assets of the firm.

A full description of the model is available in the *CreditGrades Technical Document* – visit: www.creditgrades.com or call +1 212 981 1063 for more information.