

Finding a solution to the credit problem

Peter Stockman of Accenture outlines what energy companies can do, internally, to manage credit more effectively and addresses the potential benefits of participating in a multilateral netting solution for the industry

The largest energy merchants have credit exposures equal to the exposure carried by many North American banks. The nature of this credit exposure is quite different.

- It is concentrated: fewer than 15 counterparties often account for more than 75% of total exposure in many credit books.
- It is volatile: energy merchant credit exposure is driven by commodity values subject to wide price swings.
- It is fragile: informal bilateral credit arrangements that simplify day-to-day collateral operations introduce sudden, unexpected behaviour near the edge of a liquidity crisis.
- It is costly: whereas most bank credit exposure is to other, highly rated financial institutions, energy company credit exposure is to other companies, many barely holding on to investment grade ratings.

Energy company balance sheets are not bank balance sheets. They are not structured to hold credit risk. Asset development competes with risk for capital and cash. Accenture estimates indicate that the aggregate credit exposure in the energy sector exceeds the sector's aggregate credit capacity.

Figure 1 illustrates the outcome of this situation: tens of billions of

dollars in lost market value in the North American energy sector alone. The downward pressure on company values comes from many sources. Credit concentration and tightly interwoven cross-exposures mean that news about one participant influences the funding costs of many others. Credit agreements fraught with ratings triggers and a 'relationship' approach to managing the largest counterparties only add to the brittleness of energy company balance sheets.

The result is capital costs, working capital inefficiencies and constraints on liquidity that hurt company valuations. The rising tide of credit exposure is sinking all boats. What can be done? Clearly, companies can do a better job at managing the credit exposure they accumulate in the normal course of business. Recent efforts to establish risk management standards for the energy sector will facilitate broad change, in much the same way the Group of 30 addressed standards for the derivatives industry and the Basel accords have established guidelines for the banking sector, globally. While minimum standards and 'best practices' will establish a defensive baseline, energy companies will be able to achieve a significant market advantage by innovating more advanced credit risk management practices. Today, only their bank trading partners enjoy these market advantages.

Managing credit exposure more effectively does not address the fact that growth in the industry is being constrained by the sheer quantity of credit exposure on company balance sheets. Credit netting is the solution to this problem. The most sustainable solution will probably involve removing credit exposure from the industry entirely.

Figure 1. Market impact of credit exposure and transparency problem

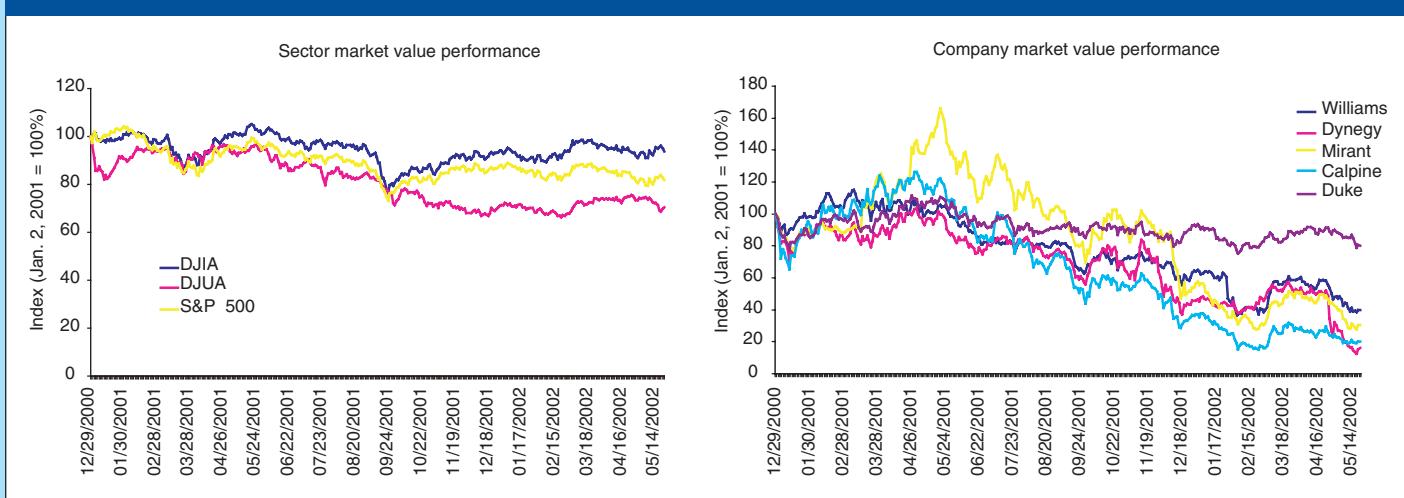
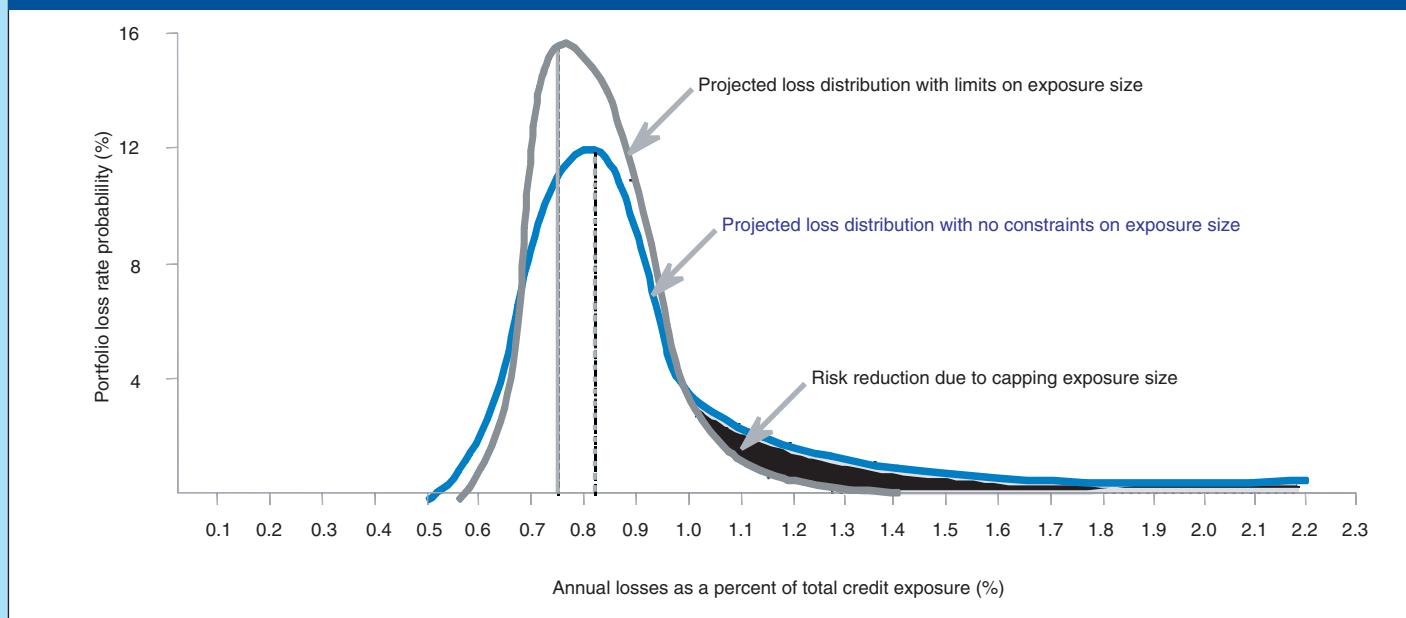


Figure 2. The impact of capping exposure size



Achieving internal solutions

Focusing on the basics will help a lot. Being able to measure current, gross credit exposure by counterparty across all businesses, transactions, agreements and geographies is basic, but not a capability all major energy marketers have. Similarly, comprehensive collateral and cross-product netting is foundational, but is not a universal feature of energy credit risk management. Many energy companies are only just beginning to project future, potential credit exposure and experiment with credit VAR and transfer pricing the credit cost-of-carry.

The credit management organisation is even less developed. As a rule, energy companies build credit portfolios from the bottom up, acquiring exposures as they acquire commodity and financial positions. Credit policy within an energy company focuses on transaction-level credit procedures and measurement. Responsibilities for credit strategy and planning, credit performance measurement, definition of risk acceptance criteria and credit capacity management are not defined and are not an important feature of the chief credit officer's job description.

We think there are three important management steps that energy companies must take, in order to regain control of their credit rating, these are as follows.

Create a credit portfolio management mandate. Figure 2 illustrates the effect of changing average exposure on the loss distribution of a credit portfolio. As you can see, capping the size of counterparty credit exposures can have a substantial effect on the variability of losses in the credit portfolio.

Exposure size is not even the most important driver of portfolio loss volatility: the credit quality profile of the portfolio has the largest impact on the shape of the loss distribution. The next most important driver of loss volatility is loss-in-event-of-default (LIED). Typical LIED is highly skewed, with a double-digit probability of a zero LIED and smaller, evenly distributed probabilities of LIED ranging from 10–100%. The shape of the LIED distribution is heavily influenced by the collateral structure and source of credit exposure in the portfolio.

The point here is that the shape of credit portfolio's loss distribution has a direct effect on the credit quality and financial flexibility of an

energy company, shown in figure 3. An energy company's financial flexibility is directly tied to the size and composition of its portfolio of wholesale credit exposures.

Managing the size and structure of the credit portfolio is critical to corporate liquidity and overall balance sheet management and yet, there is usually no executive that has a clear mandate to do this.

A strong credit portfolio management mandate ensures that credit strategy is consistent with business strategy. It includes credit planning and credit performance objective setting. Finally, and most importantly, it includes establishing targets for credit portfolio size and mix and taking actions to maintain this size and mix.

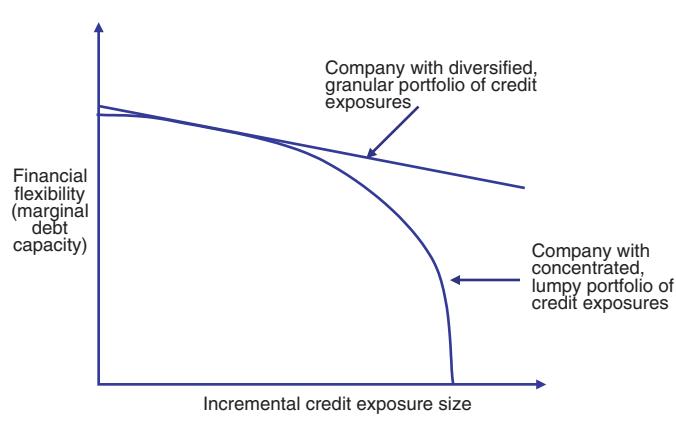
Establish the means to balance the business franchise with the credit franchise. Balancing credit decisions with business decisions does not mean saying "yes" or "no" to transactions. Extension of credit is a feature of an energy transaction. Balancing the business franchise with the credit franchise means that:

- the credit extension is properly priced and one is being compensated (through margin or structure) for the use of company credit capacity;
- credit capacity is used on the most profitable deals and businesses; and
- there is an exit strategy for the credit exposure that supports the customer relationship objectives.

The credit tools needed to do this include credit pricing and transfer pricing analytics; credit capacity pipeline management and a view of transaction profitability that includes the credit cost-of-carry.

Make credit risk transparent to management, rating agencies and investors. This is, perhaps, the most effective way of taking back control of a company's credit rating and funding costs. It has two features: taking the lead and exceeding standard credit risk management practices and driving quality and innovation into credit reporting. If banking provides

Figure 3. Impact of credit portfolio composition and financial flexibility



any lessons, individual energy companies that develop new and effective means of managing credit will have much more control over the rating outcomes. Energy companies need to be teaching and educating external constituencies, not listening and responding.

Ensure there is singular accountability for liquidity management. In our work with clients, we often see a sharing of responsibility for corporate liquidity between the Treasurer, the chief market risk manager and the chief credit risk manager. While such sharing arrangements cover off the requirements for managing corporate liquidity, monitoring and decision making often suffer. Each executive approaches the task from their own perspective and accountabilities. There is usually management 'white space' between these accountabilities.

Without singular accountability for the liquidity position of the corporation, development of a comprehensive view of liquidity is dif-

ficult to achieve. Figure 4 illustrates the components of such a comprehensive view. It breaks liquidity into sources and uses. The top row lists the categories that are typically tracked for liquidity management purposes. The middle row lists contingent sources and uses of liquidity that are often overlooked. It is these quantities that have the greatest impact on corporate liquidity behaviour at the edge of a liquidity crisis. Finally, the third row lists quantities that are almost always overlooked in bottom-up liquidity aggregators. These are sources and uses of liquidity that originate at the top of the house, rather than the bottom.

An industry solution: multilateral netting

Getting internal management of credit exposure right is critical. No one is going to do it for you and it is imperative to long-term corporate survival. With a strong credit portfolio management mandate, companies do not need to retain all the credit they extend on their own balance sheet. They can transfer it to investors through credit insurance, credit derivatives or structured products. Such transfers are expensive and may not be options for less highly rated companies. We believe that multilateral netting is the most effective solution to the industry credit exposure problem. There are real and substantial benefits to companies that clear through a central counterparty. Initial indications are that more than two-thirds of the gross exposure in the industry can be eliminated through multilateral netting. This results in huge releases of working capital to more productive uses and a reduction in funding costs.

Accenture's analysis indicates that individual energy companies should use a variety of methods to rectify credit exposure on their balance sheets. In some cases it pays to retain some credit risk on balance sheet. This will be the case when the company's own balance sheet provides the least costly source of risk financing for that tranche of credit risk. Risk transfer techniques such as credit insurance and individual transaction covers make sense for larger, riskier tranches of credit exposure. Multilateral netting represents yet another means of rectifying credit exposure. It is currently competing with credit wrappers as a company- and industry-level solution to the credit problem.

Multilateral netting comes in two flavours: mutualised and market-

Figure 4. A more comprehensive view of liquidity

Quality	Liquidity sources	Liquidity uses
Liquid	<ul style="list-style-type: none"> ■ Cash ■ Traditional current receivables ■ Current period gains 	<ul style="list-style-type: none"> ■ Traditional S/T payables ■ Traditional current payables ■ Current period losses
Contingent	<ul style="list-style-type: none"> ■ Callable, but uncalled collateral owed ■ Securities lent ■ Bank lines ■ Letters of credit ■ Unrealised gains 	<ul style="list-style-type: none"> ■ Callable, but uncalled collateral due ■ Securities borrowed ■ Unrealised losses
Financing	<ul style="list-style-type: none"> ■ Incremental debt capacity ■ In-the-money off-balance-sheet financing 	<ul style="list-style-type: none"> ■ Out-of-the-money off-balance-sheet positions



Figure 5. Evaluation of industry-level credit exposure solutions

Requirements for liquidity	Individual transaction covers	Corporate credit wrapper	Mutualised multilateral netting	Market-based multilateral netting
1. Enables credit anonymity	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
2. Reduces credit cost-of-carry	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
3. Removes credit risk from participant's balance sheet	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
4. Participants pay full freight for own credit risk	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
5. Tail risk managed by those in a position to mitigate it	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Removes credit risk from the industry	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	<input type="radio"/> = satisfies not at all	<input checked="" type="radio"/> = completely satisfies		

based. In the mutualised version the central counterparty is owned and capitalised by the clearing participants. The netted credit exposure on the central counterparty's balance sheet is transferred to the balance sheets of the clearing participants through their ownership stakes and capital contributions. In this way it functions much as mutual savings banks, building societies and stock market clearing-houses do. The cost of the insurance policy offered by a mutual clearer is paid through reserve assessments and margin requirements. Fairness is achieved by limiting clearing participants to more highly rated counterparties.

The market-based version uses the credit markets to distribute the netted credit exposure to outside investors. The netted credit exposure is, for the most part, not put back on the balance sheets of the clearing participants. The cost of the insurance policy offered by a market-based clearer is paid through transaction fees. Fairness is achieved by charging clearing participants transaction fees commensurate with their credit quality.

How do the solutions to the industry's credit exposure problem compare? We have evaluated the most prominent solution alternatives on the basis of how well they support factors that encourage energy market liquidity. The factors relate to trading anonymity, credit pricing and discipline, company balance sheet impact and how catastrophic events are resolved.

The results can be seen in figure 5. Market-based multilateral netting achieves a positive contribution to market liquidity across the board. Mutualised multilateral netting has substantial benefits, but does not produce the same credit discipline as covers, wrappers or market-based multilateral netting. Wrappers and credit covers take credit exposure out of the industry, but are expensive in that they cannot exploit the benefits of multilateral netting.

Looking forward

Multilateral netting, credit wrappers and other company-level solutions to the credit problem will soon be here. These solutions will create new credit risk management and reporting requirements. Companies participating in a mutualised netting solution will need to develop trade and credit clearing connections with the central counterparty. They will also need to account for their share of the mutualised net credit exposure as a contingent use of company liquidity. Companies participating in a market-based netting approach will have to develop many of the same trade or credit clearing interfaces. Further, they will have to have the analytics in place to confirm the reasonableness of the insurance fees charged by the central counterparty.

Both solutions will produce large benefits for individual companies and the industry. Companies should begin now to exploit this benefit. ■

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