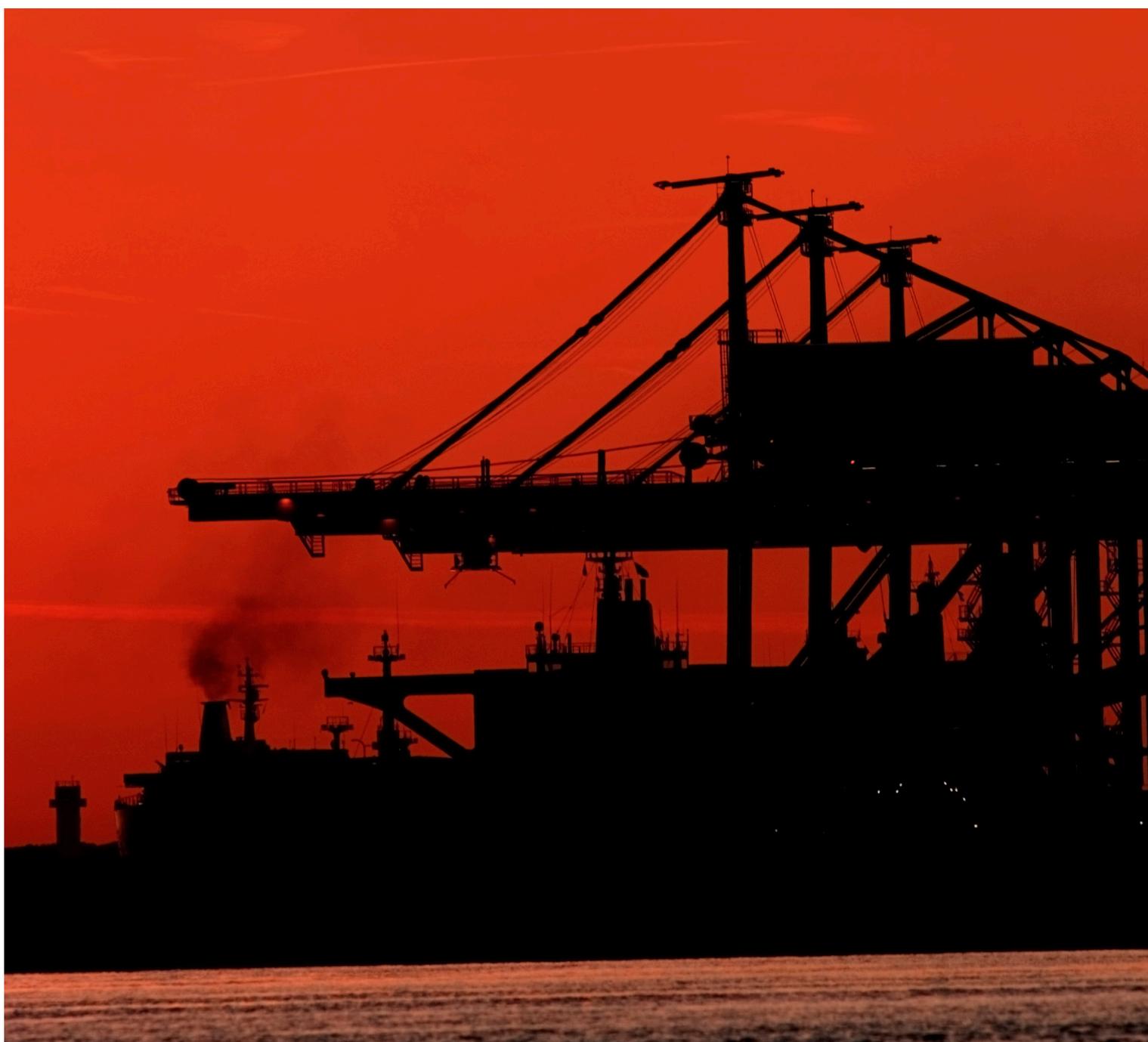


# Managing credit risk for global commodity producers

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March 2010







# Introduction

The global financial crisis has brought credit management practices back onto the boardroom agenda of most large exporting producers. Credit exposure for a single customer can be in the order of several hundred million dollars for large producers. Despite the turmoil of the past two years, many commodity producers still use unsophisticated credit risk management practices.

This paper describes the credit risk issues faced by global commodity producers and highlights examples of best practice in the areas of the assessment and management of credit risk.

# A. The return of credit risk

## Commodity credit risk

As commodity prices and volumes rose steadily in the years before the financial crisis in 2008, credit exposure of commodity producers grew silently and massively. Masking this exposure was the very low incidence of payment default due to the burgeoning global demand which offered many alternative sale options to anyone with an unwanted cargo or available stockpile.

Commodity markets have become truly globalised over the past two decades. Large users of raw materials such as steel mills, refineries and power stations now deal directly with commodity producers rather than the trading houses that previously dominated international trade in many commodities. Driving this change has been commodity user access to foreign exchange and overseas bank financing. More recently, commodity users from emerging economies have also been able to deal directly with producers due to the adoption of international accounting and reporting practices and better local capital market regulation.

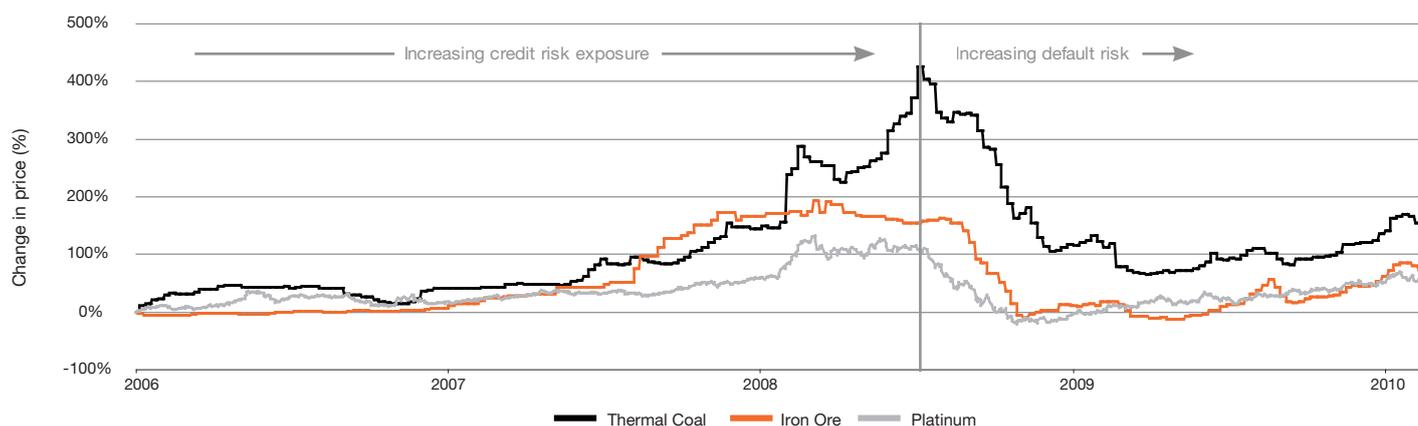
In this increasingly competitive supply environment, large export producers have been required to accept credit risk from a wider variety of international customers. Over the past two decades, export producers have become more accustomed to huge credit exposures and more relaxed about the financial standing of their customers as they vied to sell their product to both industrial sector customers and the increasing number of trading houses focused entirely on commodity speculation. For all but the most disciplined of producers, the pressure to produce volume and preserve price overpowered the ability to manage credit risk at acceptable levels. For many producers, the customer track record of payment remains the only metric used to assess the credit worthiness of a customer.

## Increased default risk from buyers

From the middle of 2008, many commodity customers began to aggressively negotiate reductions to contractually agreed prices and in some cases deferring and cancelling shipments. This is unsurprising given that a shipment of iron ore or coal purchased when prices were at their peak could be purchased on the spot market for tens of millions of dollars less by the time the loaded freighter was in transit. Faced with increased customer reluctance to accept contracted shipments, producers quickly began to quantify their credit exposures and realised the significant risk of payment default they faced from some of their biggest customers.

Some producers who can ship CFR/CIF have exercised their options to retain control of the cargo for longer and therefore reduced their credit exposure for voyage time. However, these producers are generally able to maintain usual payment terms which place FOB shippers under more pressure to maintain their existing terms.

Figure 1: Increasing credit risk



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## B. The credit risk challenge

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### Piloting through the global financial crisis

Selling commodities on the global market requires major exporting producers to enter into complex credit arrangements involving billions of dollars annually for the sale and transport of hundreds of millions of tonnes of minerals across multiple legal jurisdictions.

Steven Johnstone, Global Head of Risk and Assurance, Base Metals at Anglo American is clear about the importance of credit risk: “Managing the complex credit arrangements required to sell our commodities as we piloted through the global financial crisis put credit risk back on the main agenda for Anglo and all major mining companies”. Anglo American’s response to this industry challenge was to develop a completely new global credit risk process for coal sales which was fully implemented by June 2009 across the company’s main coal operations in South Africa, Australia and the UK.

### Credit ratings

The international rating agencies: Moodys and Standard & Poors (S&P) provide capital markets with the most credible and objective measure of creditworthiness for companies, financial instruments and sovereign nations. PricewaterhouseCoopers estimates that less than 20% of global commodity customers have an internationally recognised credit rating provided by a globally recognised rating agency. Many customers rely instead on their reputation for payment, the credit rating of one or more of their shareholding entities or even the sovereign credit rating of their country of domicile when negotiating purchase contracts.

There are many reasons why obtaining a credit rating is difficult for some commodity customers. Many large customers are not listed on any stock exchange and have no audited financial accounts available. Although English is the international language of banking and shipping, many customers provide no information or only extracts of their accounts in English.

There are some sectors where ratings coverage is common such as power generation for example. However, many commodity customers have complex or undisclosed ownership structures. Most large industrial companies contract through subsidiaries but only disclose accounts of the parent and rarely fully guarantee the subsidiary.

Many trading houses rely upon their reputations earned through decades of honest trading and typically don’t provide any financial information.

International credit agencies are still conscious of past criticisms of slow reaction to previous economic slowdowns which were followed by spectacular corporate failures. Most recently, credit agencies quickly began to systematically downgrade companies with high debt levels or looming loan repayments which were perceived to be difficult to roll-over in a tightening capital market.

The challenge for the producers is therefore to produce a reliable picture of the credit risk position of each customer that can be relied upon to be consistent and comparable across the many different types of customer operating in different sovereign jurisdictions.

### Tightening banking requirements

Compounding matters in the second half of 2008, was the fact that the banks were facing their own credit crisis and began to significantly reduce their own exposure to other banks. Although much of the external focus seemed to be on falling prices, the mechanics of the commodity trading system also began to break down. Fear of default from customers or their banks began to hinder deals as producers, customers and their respective banks tried to evaluate new levels of counterparty risk.

Compliance procedures were tightened severely, particularly for banks operating in developing economies where many commodity customers are to be found. Payment risk had previously been transferred between banks (for a fee) thus guaranteeing payment for the producer. Banks in developed economies started to refuse to accept the payment risk from many customer banks.

Banks and credit insurers have also reduced recourse and limited recourse risk coverage for customers in many sectors and countries. This places further pressure on the producers who are forced to make a decision about whether or not to trade without risk coverage. Customers without such arrangements still expect the producers to agree sale contracts, particularly longstanding customers with perfect payment records.

Many customers started (and continue) to find it impossible to arrange letters of credit guaranteeing payment to the producer. Producers in this situation face a difficult choice of either loading the cargo and accepting full open account payment risk or cancelling a coal sale to a customer at a time when supply is exceeding demand.

## Sovereign and sector risk

Sovereign and sector risk are important components of overall export credit risk. Even multinational corporations with strong credit rating in their home country of domicile may have wholly owned subsidiaries operating in much riskier countries or sectors. Currency exchange restrictions for example can negatively affect the ability to trade in anything other than local currency particularly during times of inadequate foreign currency reserves.

Sovereign risk is also an important proxy that can be used for government owned corporations. There is considerable information available on sovereign risk due to the hugely active foreign exchange and bond markets and almost all sovereign nations are rated by both Moodys and S&P.

Sector risk is more difficult to determine and can change frequently. However many customer sectors are inherently riskier than others. For example, a pure trading house with unclear ownership structure is a fundamentally different risk position than a state owned power generator with a regular cash flow.

The risk involved in selling to particular industries can change considerably in a relatively short time due to many factors as diverse as changing demand for product, debt exposure levels, global supply situations or even environmental factors like abnormal weather.

Sector and sovereign risk may not be an issue if a parent entity with a good credit rating guarantees the debts for all its subsidiaries no matter the industrial sector or country of domicile. However, it is clearly important that the credit risk assessment process ensures that such credit guarantees are in place.

## Credit risk culture

Most major producers have managed to make it through the global financial crisis without a significant level of payment defaults. However establishing new credit risk governance procedures has become a priority for many. A good credit risk policy should result in the implementation of a system that encourages the measured and controlled risk necessary to sell target volumes at healthy prices.

Developing a good credit culture means embedding credit risk awareness and processes throughout the sales and finance functions. This is an important step to avoid the inevitable conflict between the sales team trying to sell the product, the finance team trying to manage debtors and the treasury team managing working capital requirements.

## Separation of tasks

One symptom of an unhealthy credit risk culture and poor control process is the situation where sales people view credit risk as being of no concern of the finance function. They may even ignore clear warning signs of customer financial distress in their haste to close the deal.

One way to help embed good credit culture and procedure across the sales and finance function is to ensure clear task separation when it comes to setting the credit limit for a customer and agreeing a sale contract with that customer. The level of separation (and authorisation) will typically vary depending on the size of the credit limit required. Ensuring sales personnel are never responsible for managing the credit limits of their own customers is the most basic level of control.

# C. Managing the credit risk process

## Using external credit ratings

Utilising international rating agency information from Moodys and S&P is a key element of a sound credit management methodology. Investment grade ratings provide the yardstick for acceptable counterparty risk and contractual risk accepted with customers defined by rating agencies as being below investment grade should typically return a higher level of reward.

Entering into a contract with counterparties considered below investment grade requires caution, greater business justification and should be accompanied by a greater level of monitoring.

However, producers must bear in mind that it is the customer that pays for a credit rating for the primary purpose of facilitating their own borrowings and investment. Some companies pay for ratings because they don't disclose financial information to the wider market. During the global financial crisis, some companies chose to discontinue their use of credit agencies when their ratings began to drop and threatened to fall below investment grade as defined by the major agencies. Even when ratings are available, they must be treated with caution. Credit ratings agencies are not responsible for verifying the accuracy of the financial data supplied to them. The recent financial crisis demonstrated that even accurate historical financial information is not always a good indicator of credit worthiness.

Key external indicators such as share-price movement can give an immediate indication of deteriorating financial position even when the credit rating remains good. Internal qualitative measures such as late payments for recent shipments or erratic re-scheduling of shipments may also give a better indication of credit risk position than the current credit rating.

## Developing internal credit ratings for customers

For the reasons outlined above, the development of an internal credit rating system is vital for producers that sell on the global market. This process must be robust and wide-ranging enough to produce comparable risk metrics for customers operating across different sectors, in different sovereign jurisdictions and with varying degrees of publicly available financial information. The process must also be able to take into account complex ownership structures which also typically cross different legal jurisdictions. Implementing such a system requires a

producer to move beyond historical measures and think carefully about the factors that impact credit worthiness of their particular customer base.

Figure 2: Customer financial information

Key assessment area	Weighting	Risk	Calculation	Weighted risk	Risk rating					
					1	2	3	4	5	
1 Size	20%	1	\$8,249m	0.20	1					
2 Net assets	20%	1	\$3,935m	0.20	1					
3 Liquidity (Current ratio)	15%	1	143%	0.15	1					
4 Liquidity (Acid test)	15%	3	88%	0.45			3			
5 Profitability	20%	3	6%	0.60			3			
6 Gearing	10%	4	43%	0.40					4	
7 External credit rating	0%	0	No rating	0.00						
Weighted average	100%	2.00			2					

## Managing to limits

A credit limit is defined as the total amount of outstanding debt that a producer is prepared to accept from a customer. A credit limit is one of the most important key control points in the credit management process.

To be effective a credit limit is not a guideline but a 'hard stop' control that needs to be taken seriously by all participants and a disciplined approach taken to potential breaches, increases and renewals.

Shipments are seldom uniformly spread so where prudent, limits may need to be set to allow for spikes in volume. Managing this process in real time is incredibly difficult when a producer sells/contracts multiple shipments from different ports/countries to the same customer. It becomes even more complex if the customer is purchasing through different legal entities with multiple destination ports which may not even be in the same country. To compound this problem further, many global producers sell/contract from more than one legal entity operating in different jurisdictions.

Figure 3: Risk factors

Key assessment area	Weighting	Risk	Weighted risk	Risk					
				1	2	3	4	5	
1 Company risk	60%	3.00	1.80			3			
2 Sector risk	20%	3.00	0.60			3			
3 Sovereign risk	20%	2.00	0.40	2					
Weighted average	100%	2.80				3			

Rarely will a producer be able to contractually restrict shipments under a tight internal credit limit so managing to limits sometimes requires operational adjustments such as monitoring vessel nomination and acceptance which is another key control point in the export credit process. Once a vessel has been accepted it is very difficult and expensive to stop the cargo proceeding to the customer. An effective and efficient credit process must therefore incorporate the functionality to forecast future exposure levels based on latest shipping and expected payment schedules.

Other methods that can be used to manage to internal limits include retaining title and control of the cargo for longer eg changing from FOB to DES terms. However in this situation, marine insurance arrangements will then be recommended. Trade finance and credit insurance may also be used to sell down risk to trade banks and credit insurers which can involve discounting receivables. However each of these options has an associated cost.

### The right tools for the job

Many producers still use unsophisticated credit risk management practices consisting of ad hoc processes and rudimentary software tools at best. However universal use of a standardised credit assessment tool is an important part of the credit management process.

Producing a standard set of software tools helps standardise credit risk assessment and ensure easy and consistent management reporting of the credit risk portfolio. Implementing such tools also helps producers understand credit trends, in particular customer sectors or geographies and allows monitoring of the history of both individual customer and portfolio credit risk.

The biggest barrier to developing a software tool is the lack of a consistent credit risk assessment process to systemise in the first place. The credit risk policy and credit risk assessment process are often absent or outdated and require significant effort to put in place the agreement of all stakeholders across the organisation. Understanding and systemising the many parameters to be considered when reaching a credit decision is the first step towards implementing a robust and standard methodology.

The following steps are the typical sequence that must be followed to implement a credit risk tool:

- Determine credit risk policy
- Determine key control points for sale/shipping
- Design credit assessment process
- Design reporting formats required
- Design tool logic
- Build, test and implement tool

Figure 4: Credit risk assessment tool

The screenshot displays a credit risk assessment tool interface. It is divided into several sections:

- FINANCIAL STATEMENTS (BALANCE SHEET):** A table with columns for 'Euro (Millions)', '31-Dec-08', and '31-Dec-07'. Rows include Cash & Equivalents, Trade Accounts Receivable, Inventory, Other Current Assets, Total Current Assets, Net Fixed Assets, Intangibles (goodwill, etc.), Other Non-current Assets, Total Non-current Assets, TOTAL ASSETS, Trade Accounts Payable, Loans Payable, Other Short Term Liabilities, Total Current Liabilities, Provisions, Long Term Debt, Other Non-current Liabilities, Total Non-current Liabilities, TOTAL LIABILITIES, TOTAL EQUITY, and Total Liabilities & Equity.
- Qualitative:** A box containing factors like Share price movement, Ownership structure, Status with industry, Industry trend, Relationship history, and Creditworthy news & events.
- Quantitative:** A box containing factors like External credit rating, Balance sheet, Income statement, Market segment, and Country of operation.
- INCOME STATEMENT:** A table with columns for 'Euro (Millions)', '31-Dec-08', and '31-Dec-07'. Rows include Revenue, Cost Of Goods Sold, Gross Profit, Total Operating Expenses, EBITDA, Depreciation & Amortisation, EBIT, Loan Interest & Other Borrowing Expenditure, Other Non Operating Expenditure, Non Operating Income, Net Before Taxes, Tax Expenditure, Extraordinary Income or (Loss), Minority Interest Income or (Loss), and NET INCOME AFTER TAX.
- Final Recommendation:** A section with a dropdown menu for 'Recommended credit limit (\$/€ million (if applicable))' and a text box for 'Recommended credit terms and security (if applicable)'. It also includes a 'Recommended comment' field and a 'Credit Risk Assessment - Authorized Approval' section with fields for 'Submitted for approval by:', 'Frequency of review required:', 'Date of approval:', 'Approver name:', and 'Approver signature:'.

- ### Design principles of the tool
- Balances leading and lagging indicators
  - Links the credit risk assessment to a structured credit limit estimation
  - Integrates the credit risk assessment rating to contract risk for unsecured customers
  - User friendly and effective format to increase risk assessment process efficiency
  - Automated functionality to analyse customer information
  - Leverages external credit ratings from Moody's & S&P
  - Incorporates sovereign risk ratings
  - Provides both a quantitative and qualitative perspective to allow for an informed credit risk assessment

## Adopting a portfolio view of credit risk

Adopting a portfolio view of credit risk allows customer comparison and also a measure of aggregate credit risk which can be segmented by geography, industry sector or risk category. The portfolio view of credit risk is typically the view that should be presented regularly to both board level risk committees and the executive management team.

One company who have implemented a new approach to credit risk is Anglo American plc who implemented new global credit risk policy, processes and tools in June 2009. Francois Jacques, then Global Head of Marketing for Anglo Coal was very clear about the need to adopt a portfolio view to assist management decision making. “At the customer level, we had to introduce a robust set of tools and policies to cope with the new world we now operate in. But without risk there is no return and it is vital that we also understand our exposure to each industry sector and of course each country that we sell to”.

It is suggested that to obtain a balanced portfolio view, aggregate credit risk should be reported by:

- customer
- customer sector
- product (commodity)
- producing mine
- country of production
- country of destination

The portfolio view of customer credit risk should highlight any imbalance of risk exposure to particular sectors and geographies or closely related customer entities in particular. Well presented portfolio summary data will help minimise short term credit risk and also steer business volumes to customers and sectors with stronger credit positions. This should result in a healthy well balanced customer portfolio in the longer term.

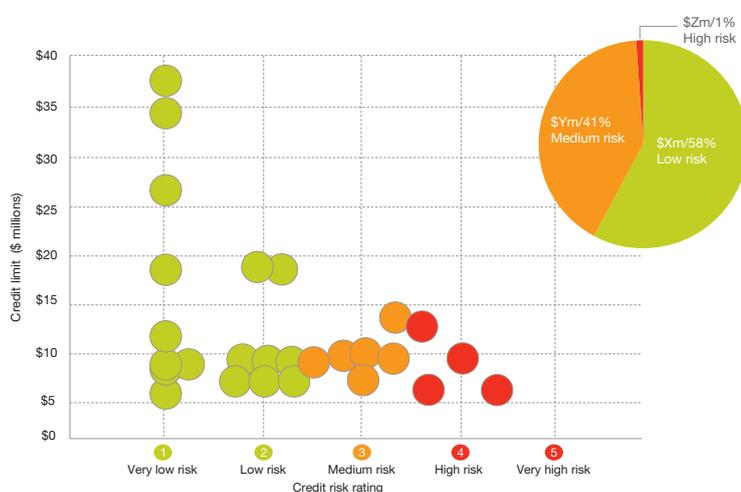
## Trade finance, credit insurance and banking relationships

Trade banks and credit insurers play an important role in providing the financial mechanisms needed to facilitate trade between producers and customers such as letters of credit. Banks can also facilitate participation in the credit default swap market which can provide coverage of payment default risk on customers at the more credit worthy end of the spectrum. The banks in effect accept the transfer of trade risk from the customer for a price. They can also effectively provide risk cover for open account business on either a disclosed or silent basis although typically this will involve tight contract terms or a bill of exchange as part of their security. However the cost of such financial mechanisms can be extremely high for customers with high credit risk.

Trade finance is an important aspect of the credit management process and must be managed tightly to avoid unintended unsecured risk. The credit risk protection provided by letters of credit used to secure payment for a shipment commonly become invalid due to the inability of the producer to comply with the strict documentation requirements of the bank. In the event of payment default in such circumstances, the producer has no recourse to the issuing or confirming bank and has wasted time and money confirming the letters of credit.

Trade banks and credit insurers are excellent sources of information for commodity producers. Banks typically have professional credit departments with deep information. It is in a bank’s interest to share credit related information with the producers using their services where it is legal to do so. However few producers systemise the collation of appropriate data from their banking partners in a proactive and timely manner as part of the credit risk process. Since the onset of the global financial crisis, banks have become accustomed to receiving urgent requests for information from producers to help resolve credit decisions.

Figure 5: Credit risk profile – Customers



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# Conclusion

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Commodity producers require robust systems, processes and a cross functional involvement in credit management to minimise credit risk at the customer and portfolio level. Despite the recent financial crisis, many exporting producers still lack the basic systems and processes required to actively manage credit risk. Managing credit risk has become increasingly difficult for commodity producers due to the following factors:

- Increased default risk from buyers.
- Most customers have no internationally recognised credit rating.
- Banking requirements have tightened reducing ability of customers to arrange payment guarantees.
- Widening variation in sovereign and sector risk profiles.
- Poor credit risk culture within the marketing and sales groups.

However, many leading commodity producers have implemented robust controls and tools to manage the credit risk process. This paper has sought to highlight five areas of focus to improve the management of credit risk:

- Producers should develop an internal credit rating system for customers.
- Internal credit limits should be used as the main control point in the export process.
- Close relationships should be maintained with credit insurers and banks.
- A standard credit risk process and set of tools should be used by all marketing and sales personnel.
- A portfolio view of credit risk should be reviewed regularly by a senior executive team.

## Acknowledgements

This paper has been developed following insights gained by PricewaterhouseCoopers while working on projects with Anglo American, BHP Billiton and Xstrata. Francois Jacques and Steven Johnstone with Anglo American plc in London and Mark Couchman with ANZ Bank in Brisbane were all kind enough to contribute their time and deep knowledge to add valuable contributions to this paper.

Our special thanks to the Marketing, Sales and Finance teams at Anglo American who engaged PricewaterhouseCoopers to help develop and implement new credit risk processes and tools and have allowed us to reproduce some of their insights and solutions.

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