Companies faced with significant exposures to commodities are experiencing unprecedented challenges as a result of volatile and rising commodity prices fuelled by population growth, climate change and a growing prosperity. This in turn is having a direct impact on company performance and many companies who have issued profit warnings over the past few years have found this is partly being driven by rising commodity prices.

Market data indicates that this rise in commodity prices is more structural and will remain going forward, and companies therefore need to consider fundamental changes to their business model. This article discusses why organisations might consider commodity risk as a significant issue and sets out factors to consider when looking to set up a Commodity Risk Management (‘CRM’) function.

Creating the case for managing commodity risk

Commodity price volatility has reached unprecedented levels over the last five years and most people are now of the view that this trend is likely to remain with us. Recent price volatility in almost all commodities has significantly outstripped that of other indices and exposures such as foreign exchange.

Commodity price volatility has reached unprecedented levels over the last five years

Figure 1: Commodity prices September 2009 – September 2011

Source: Bloomberg
Volatility creates a significant exposure for any company producing or trading commodities, but also for those consuming or using commodities as part of the manufacturing, distribution or selling process. Companies within sectors such as industrials, mining and metals, retail and consumer goods appear to be having the greatest exposures to commodity risk. The commodities that have been most volatile over the past five years include oil, wheat and copper, and where these are embedded in the supply chain they can have a significant impact on profit. Many companies are also finding that the volatility and price increases in many commodities are having a direct impact on profit margins. This creates fundamental business performance issues which are also compounded by the difficulty in passing on these higher costs given the current economic environment. These performance issues are particularly relevant in industries where demand for a company’s product is weak but they are also having an impact on companies where there is strong demand and good pricing power because the speed of the surge in input costs means there is a lag before they can pass them onto their customers.

Companies that proactively and effectively manage their commodity risk will be in a position to gain a competitive advantage over their peers especially when it comes to profit margin. However, it appears that for many organisations commodity risk is lower on the risk register and hence may not receive the focus that it deserves. This was confirmed in PwC’s recent Global Treasury Survey involving 600 companies which highlighted that 75% of companies saw commodity risk as low to medium level in terms of importance, 60% took a reactive approach or did not manage it at all and over 50% of companies either naturally hedged or did not hedge at all.

We believe organisations that have yet to proactively consider commodity risk as high on their risk agenda may be exposing themselves to both business and financial risk. We recommend companies who are exposed significantly to commodities consider a CRM function or some level of capability to address this risk.

PwC
In setting up a CRM framework we recommend you consider:

1. **New Operating Models.** Companies should be mindful of the scope of the CRM function and how broad its role could and should be. Successful functions generally have clear objectives, are fully integrated into the end-to-end supply chain and perform a range of activities including sophisticated hedging techniques, creating localised supplier hubs, developing closer relationships to strengthen security of supplies and optimising supply chain logistics (e.g. optimising inventory levels in accordance with market forward curves and optimising logistics in accordance with geographical price spreads). The model on right sets out a framework for companies to consider when setting up a CRM function.

2. **Taking an enterprise view of risk.** Companies which have assessed commodity risk to be significant are vulnerable to there being a direct impact on performance and therefore should consider taking a strategic approach to enterprise risk management. This includes a group wide understanding of risk and standardised quantitative risk measurements across the business including risk adjusted return on capital, value at risk and profit at risk.

3. **Integrated and real-time management information.** With increasing exposure to commodity price volatility and with complex contract structures, real-time risk, coverage and exposure information is critical to effective risk management and procurement optimisation. Coverage reporting should distinguish between physical coverage (through supply contracts and inventory) and financial coverage (through hedging, physical fixed price contracts and inventories). In addition, reporting should also focus on indirect exposures to underlying commodities which are hidden in parts of the cost structure and result in companies understating the true exposures which impact profits.

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**Figure 4: Considerations when setting up a CRM framework**

**Service, functional and integrated model**

When setting out what the function will do it is important to distinguish where in the organisation a CRM function would sit. The PwC Treasury Survey Report 2011 (Managing the aftermath) indicated that 40% of companies had the function sitting within Procurement and 40% in Treasury. In addition, companies should also decide on the activities being performed which may include assessing credit worthy parties, executing instruments to hedge, reporting risks to management, accounting and paying counterparty invoices.

**Business strategy**

In setting a vision, companies should look to understand exposures within their business throughout the value chain (i.e. from contracting with a counterparty through to making a payment). Once this analysis has been understood and stress tested, management should set a policy framework which includes the risk appetite and the approach taken to manage the exposure including hedging and optimisation strategy. All of these key decisions will vary dependent on the business strategy and sector the company operates in.

**People and process**

Where the risks are considered to be significant and where there are significant challenges around integrating the activities within the organisation given it will touch many parts of the business, consideration should be given to the need for robust governance including policies, processes and controls which assign responsibilities, KPI’s and a risk oversight committee. In addition, given the complexity of an operation, consideration is needed to the recruitment of trained individuals who have in depth knowledge of the commodity market.

**Systems**

Managing commodity risk effectively requires both timely management information and, given the activities involved, it also requires a strong control environment and payment functionality. Companies should consider either utilising existing system capabilities or assessing where there is a need to purchase a specific CRM system.
A simple example to highlight the hidden exposures would be looking at the cost structure of a light bulb. When reviewing the volatility of the key component parts it is noticeable that they have undergone significant volatility in the last six years and therefore could have had a substantial impact on the cost structure if not effectively understood and reported.

4. Increasing sophistication in contract structures.
   With increasing price volatility, companies (both suppliers and customers) should consider decoupling supply from price risk management in order to manage commodity risk.

Embedding CRM in your value chain

The evolution in CRM practices does not appear to be keeping pace with the rapid escalation in price and volatility, and appears to be behind more established risk management activities such as foreign exchange. The greatest benefits will be realised by companies that are able to embed the CRM function within their value chain with a focus on supply chain management as well as sophisticated hedging techniques. Companies that are able to do this will create better margins than slower to respond competitors and will therefore be well placed to create a competitive advantage.

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**Figure 5: Cost structure of the light bulb**

<table>
<thead>
<tr>
<th>Sales price structure</th>
<th>Price evolution of the commodity components</th>
</tr>
</thead>
<tbody>
<tr>
<td>5% Energy</td>
<td>0% Energy (fuel)</td>
</tr>
<tr>
<td>30% Other</td>
<td>10% Tungsten</td>
</tr>
<tr>
<td>15% Aluminium base</td>
<td>20% Aluminium</td>
</tr>
<tr>
<td>12% Tungsten wire</td>
<td>30% Tungsten</td>
</tr>
<tr>
<td>25% Glass</td>
<td>40% Tungsten</td>
</tr>
<tr>
<td>13% Margin</td>
<td>50% Tungsten</td>
</tr>
</tbody>
</table>

(01/01/2005=100)

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**Source:** PwC Commodity Risk Management Flyer

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If you want to do more with your treasury to identify, realise or create value for your business, please contact your local PwC Treasury partner:

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