Centrus

Modern Finance

Commodity Hedging

White paper

How the right technology solution can support an effective commodity hedging strategy

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Over the past decade, increased price volatility across international commodity markets have caused many companies to reassess their approach to risk management.

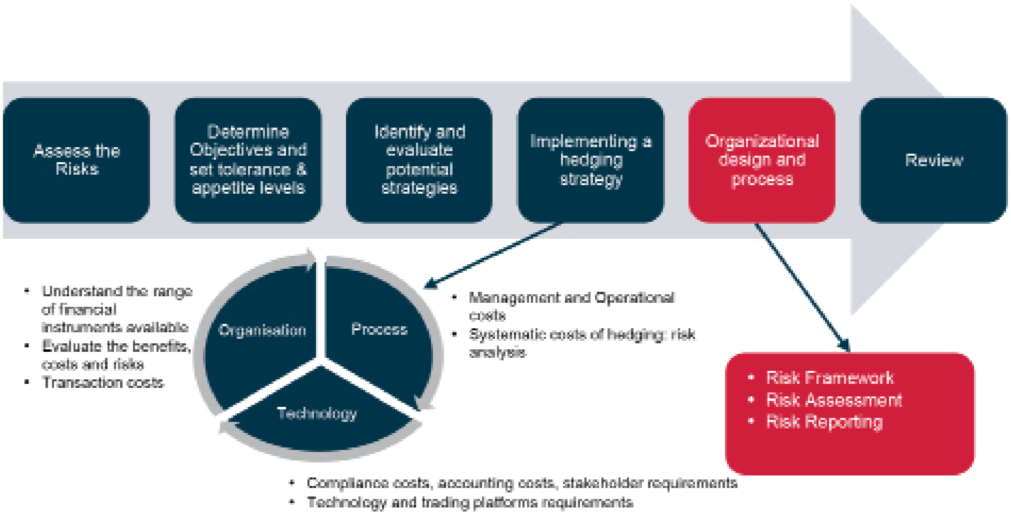
In particular, while implementing more effective hedging strategies has reduced price risk and earnings volatility, the impact of these strategies on the business has often had such an effect on profitability that they have often become key performance differentiators, impacting whether the business is able to compete effectively their market.

How the right technology solution can support an effective commodity hedging strategy

Over the past decade, increased price volatility across international commodity markets have caused many companies to reassess their approach to risk management. In particular, while implementing more effective hedging strategies has reduced price risk and earnings volatility, the impact of these strategies on the business has often had such an effect on profitability that they have often become key performance differentiators, impacting whether the business is able to compete effectively their market.

When setting out a hedging strategy a series of steps need to be taken, starting at the very top layers of management decision making. Once the right strategy has been arrived at, the right technology solution is required to be able to deliver it. An implementation stage is performed which looks to collect the relevant risk data and metrics across the business, so that management and decision making can be performed in one place. Then the on-going process is one of setup that combines appropriate quantitative analysis daily alongside market intelligence.

Risk management process – building a framework and implementing a strategy



Roles & Responsibilities

The role of actually implementing the hedging strategy on a day-to-day basis has traditionally been led by Procurement divisions, while the management of other risks such as exchange risk has resided with treasurers. This has been increasingly recognised as a sub-optimal as commodity and exchange rate exposures are often inter-linked. There are several examples of organisations not coordinating their hedging between different strands of their business e.g. a department undertaking expensive financial hedges unaware of natural hedges being in place as a result of the day-to-day activities elsewhere in the organisation or in their pension schemes, leading to an opposite increase of the net exposure instead of the desired reduction. As organisations grow in complexity, with multi-departments undergoing their own risk management, such risks only increase.

Technology as an enabler

Advances in technology have made it easier to combine exposures and the related hedges within a single department, often across traditionally separated sector types, such as currencies and commodities. Using spreadsheets to manage such processes would normally be sufficient on a small scale but as a firm grows in complexity, spreadsheets become impractical and a risk in their own right. Technology in this instance can be used effectively to aggregate demand forecasts and actuals and determine the net exposure to each different factor. The team in charge of the risk management normally receives inputs from different departments and enters these into a master system, which then allows the team to hedge only defined, relevant net risk exposures, and suitably procure the appropriate hedging transactions in the market.

“A properly supported and aligned risk management framework is the foundation to create an effective hedging strategy.”

Such a shift in technology has driven changes in attitudes in the organisational design. The hedging role has often fallen to treasurers. This has resulted in FX and commodity risk management becoming their top priority, a markedly different view compared to less than a decade ago. A sophisticated platform that can run holistic risk analysis as well as deal with daily operations can add great value to the treasury team.

Technology has also driven other corporate changes:

- Board and executive teams demand better visibility of the company’s net exposures, often in real-time, as a response to increased volatility in markets and demand for transparency
- Firms, mindful of the changing regulatory environment such as the introduction of MiFID II, EMIR and Dodd-Frank which may cause impact on non-financial businesses, are often producing further, more comprehensive disclosures, using technology.
- Technology is featuring in business review processes to fine-tune or re-establish existing hedging frameworks analysing the information on the prices achieved and the performance against targets.

Implementation challenges

Organisations are often riddled with overlapping legacy systems across different departments, resulting in inefficiencies, duplication of work and a heightened level of undue risk. Often centralisation of tasks both simplifies the business’ infrastructure and reduces cost.

Centrus has supported such system development, and market data and has successfully brought efficiencies to organisations by streamlining projects by integrating and simplifying system architecture, driving valuable cost savings and allowing the business to better manage itself.

That said, a system solution is only an enabler. In the first instance a properly supported and aligned risk management framework is the foundation to create an effective hedging strategy, normally requiring top level management buy-in without which even the best system will struggle to make a difference. A hedging strategy is only as good as the people and management driving it, however an effective technology and system partner will make the difference in ensuring that the selected strategy can be successfully delivered in a way that it works effectively and so drives value in the business.

Case Study: Risk Reporting & Derivative Valuation Services for a Major Airline

Streamlining internal treasury & risk management systems:

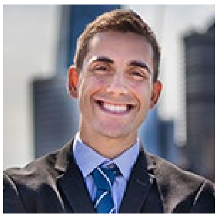
- 4-5 TMS and Trading system licenses (FX and Fuel)
- Risky and intensive spreadsheet calculation and reporting
- Complex valuations approximated by sub-standard systems.
- Desire to streamline and upgrade risk management

Based on the scenario, Centrus designed the following solution for a global airline:

- Set-up automated feeds of business exposures and hedging portfolio to Centrus’ platform, removing existing systems.
- Agree customised reporting deliverables
- Daily Dashboards
  - Daily MtM Valuations / Collateral calls
  - Potential Expected and Future Exposure (EPE / PFE)
  - Daily Hedging Position for FX and Fuel:
    - Open exposures / hedged positions across time
    - Performance against policy
- Monthly Reports:
  - Risk sensitivity
  - Monthly MtM valuation for accounting
  - Monthly settlement report
  - CVA / DVA, asset liability split

Contacts

For further advice on this area please contact:



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- Value at Risk
  - Application of different hedging strategies to VaR calculations
  - Weekly cash sensitivity reporting based on VaR outputs (CFaR)

After the implementation, the outcomes we could see were significant improvement in risk reporting and simplification of internal processes.

- Enhanced Reporting
  - Daily dashboards received early in the morning with up to date portfolio position and valuation information.
- Reduced Cost
  - Cost savings from system replacement and removal of internal spreadsheet processes.
- Pertinent Advice
  - Centrus and the airline are working closely together to ensure hedging strategy is fit to wider internal goals and appropriately communicated to internal stakeholders, keeping up to date with latest market practices.

Centrus Risk

Centrus Risk provides independent valuations and risk analyses of complex OTC derivatives and structured products. Centrus has both quantitative and technological expertise in delivering valuations, analyses and specialised reporting. Centrus Risk system framework consists of sophisticated rules engine which allows us the flexibility to adapt to new requirements and market demands. We believe it's imperative that this service is coupled with unparalleled customer support consisting of professionals from diverse backgrounds, such as accountants, treasurers and derivative specialists.

Key Benefits

- Automated Financial Disclosures Reports – Information for your business and accounts in the format you require
- Automated Hedge Accounting
- Automated MTM Reports
- Valuations & Cashflows on Complex Positions
- Potential Future Exposure (PFE) Calculations
- CVA/DVA/KVA/FVA
- Hedging Advice and Analyses
- Value at Risk (VaR) calculations
- EMR Reporting

About Centrus

Centrus is an independent financial services group that believes in a better way of doing business. We specialise in corporate finance, analytics and investment management and are united by a culture that values imagination, energy and purpose.

We believe this can unlock significant value for our clients and their communities. Above all, we're working towards a more modern financial landscape. It is a simpler and more responsible way of doing business by delivering real money and tangible benefits to the real economy.

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Data is sourced from various sources including Reuters, Bloomberg, Markit and Centrus Market Data.