Accenture Trading, Investments & Optimization Strategy

Helping organizations to navigate risks and seek organic and inorganic growth opportunities in an uncertain and volatile world.

High performance. Delivered.
Accenture Trading, Investments & Optimization Strategy
Helping organizations to navigate risks and seek organic and inorganic growth opportunities in an uncertain and volatile world.

Introduction 3
Portfolio Strategy and Transactions 4
Commodity Trading Strategy and Risk Analytics 6
Value Chain Optimization 9
Contact Us 11
Introduction

Today’s business environment is characterized by disruption and volatile swings in commodity markets. This presents organizations with an urgent need to improve their method of managing risks and earnings. High-performing businesses embrace uncertainty to monetize opportunities and build risk resilient organizations. Players in global and regional markets are responding by boosting risk management capabilities and adjusting strategies in order to defend existing businesses, to capture new growth opportunities and to improve risk-adjusted returns. They are also upgrading their portfolios by divesting and acquiring strategic and merchant assets to improve integrated margins.

Accenture Trading, Investments & Optimization Strategy offers a range of services that combines specialist industry knowledge and global breadth to help organizations craft powerful and agile strategies. These strategies are designed to make the most of today’s challenging and dynamic commodity markets. They focus on sustainable risk and earnings management, built with execution in mind, and are accelerated using a proprietary suite of Accenture assets and tools.

Trading, Investments & Optimization Strategy covers three critical capability areas: Portfolio Strategy and Transactions, Commodity Trading Strategy and Risk Analytics, and Value Chain Optimization. They work across multiple industries and geographies to provide an integrated service to help clients address their most challenging issues.

Our cross-functional practice is a center of excellence and is supported by the development of pioneering and world-class thought leadership. We cover topics such as optimum commodity value chains, asset portfolio optimization techniques and contemporary financial structuring approaches for investments and divestments. As we describe in the following pages, our capabilities succeed in empowering Accenture’s clients to transform volatility and uncertainty into opportunity and growth.
Demand for investment in commodity assets is high and is driven by a number of critical trends and forces. These include changes to the energy mix in developed countries, growing demand from emerging and frontier markets and the growth of alternative and unconventional energy sources. At the same time, new regulatory mandates are affecting reliance on particular commodities and there is a need to replace aging infrastructure.

To help businesses maximize opportunities arising from strong demand, Accenture works with executives from companies in commodities production, transformation, trading, and distribution to develop optimal capital investment programs. These include identifying targets for acquisition and divestment, performing valuation and risk analyses, structuring commercial terms and supporting the integration of marketing and trading activities.

During our initial engagement with a business we typically work with the management teams to focus on defining the asset portfolio to support the overall corporate strategy. This encompasses a number of tasks, including assessment of the level of commodity flows, exposure needed for trading and marketing operations, the capital available (based on the balance sheet structure and credit-rating target) and finally, the organization’s appetite for market, credit, liquidity and operational risks.

Once the asset portfolio strategy is defined we then focus on the execution of the plan, either for investment or divestiture. Our collaboration with the management team typically begins with asset screening and extends to the development of financial valuation, risk analysis, due diligence and high-level integration planning.

We have worked with IOCs, NOCs, global commodity traders, utilities and independents on a number of transactions. During these transactions our expertise has proved invaluable in supporting the right senior executive decisions.

Our key areas of expertise include:

1. Corporate Balance Sheet and Portfolio Strategy

We develop models designed to project balance sheet structures, according to capital investment scenarios, and gauge the expected incremental capital and cash flow needed, or divestiture program to be executed, to maintain a target capital structure. We assist companies with modeling and prioritizing a variety of sources of capital, from working capital facilities to debt capital markets. We also support the equity joint-venture partnerships that underpin asset investments and fulfill target credit rating, leverage, liquidity and solvency ratios.

2. Acquisitions and Divestitures Valuation

Our approach to valuation relies on financial models that have been used successfully in more than $10 billion worth of transactions, on both buy and sell sides. Our models are highly flexible; this enables us to value complex structures, such as joint ventures, tolling, off-take and embedded contractual optionalities. By integrating stochastic risk analysis with the financial models we can provide an integrated view of the expected range of returns and any deviation from the efficient frontier benchmark.

3. Commercial and Capital Structuring

We work with business management teams to design and assemble the main contractual commercial terms and analyze the financial implications of our valuations. Conversely, if terms are options-based we use our stochastic risk analysis approach. For commodities assets our models are designed to capture all capital structuring terms (equity call and put options, debt conversion options and joint-venture equity structuring), and commercial terms (supply and off-take price structuring, take-or-pay penalties, and performance bonuses). We also consider a range of investment structures designed to provide capital-efficient and off-balance sheet options to overcome investment programs' limitations.

4. Capital Investment Risk Analysis

To understand the cost of capital or risk premium expected from investments in particular assets, we quantify all key market, credit and operational risks through deterministic stress tests and stochastic risk models. We provide executives with metrics to assess risk/return ratios and set an appropriate discount rate for their investment valuation decisions.

5. Additional Transaction Services

In addition to our core expertise in valuation, risk and commercial and capital structuring, we also provide our clients with transactions services, covering commercial and regulatory due diligence, transaction project management and integration execution.
Client Examples

Buy Side Transaction Advisory

Accenture worked with a global commodities trading company to value the trading books of an acquisition target. To support our client’s management team, we first analyzed the structured physical purchase and sales contracts of ethanol and gasoline commodities. We extracted all price terms, optionalities (delivery or purchase time, volumetric, penalties and others), and identified potential operational risks associated with the contracts execution. From this analysis, we calculated the value at risk of the global portfolio using a price-correlated stochastic model. Working alongside the buyer’s economists and traders, we stress tested the portfolio for FX exposure, commodity prices, chartering costs and operational risks in order to assess extreme valuations. The management team was then able to use our portfolio valuation model during due diligence, to quantify the indicative value of the portfolio and set the discount factor based on the quantified market, currency and operational risk.

Greenfield Investment Advisory

Accenture was mandated by the Board of a major NOC to provide economic analysis and return valuation of a $12 billion strategic investment in a 200,000 barrels a day refinery. Given the size of the investment, the Board and CEO asked Accenture to evaluate possible joint-venture structures and commercial agreements to reduce equity capital injection and limit the impact on expected financial returns. To assess the market for the new refinery, we developed a detailed domestic and regional supply and demand analysis of petroleum products. We then used this analysis to shape price forecasts for petroleum products in the different markets, along with additional price forecasts for crude oil and LNG to be used as feedstock. Our advanced financial model incorporated modules for commercial and capital joint-venture structuring and stochastic risk analysis. These estimated the range of financial returns under different joint-venture structures, which gave the executive team the flexibility to calibrate the NOC’s investment. A summary of our economic analysis was submitted to the Board as a report and shared with the country’s oil industry officials to evaluate the project’s economics, as part of the country’s infrastructure investment program.
Commodity Trading Strategy and Risk Analytics

Commodity players are facing a period of marked change, arising from factors such as price volatility, changes to political and regulatory regimes, security of supply issues, and post-economic-crisis liquidity and capital constraints. As a result organizations are seeking to enhance their internal risk management capabilities, as well as to adjust their customer, asset and trading strategies to improve risk-adjusted returns and secure competitive advantage.

Our Commodity Trading Strategy and Risk Analytics capability is focused on helping organizations understand and respond effectively to the external pressures they face. We collaborate with clients to devise appropriate strategies that are implemented using robust business and operating models and supported with appropriate technology.
1. Earnings and Risk Management
Prudent earnings and risk management is a source of competitive advantage. We help companies to define the right balance between risk and reward. We install measures that support defensive capital protection, while still allowing for capital growth.

2. Commodity Risk Analytics and Valuation
To remain competitive, many commodity players need to enhance their analytical and control capabilities. They can benefit from identifying, measuring and managing all dimensions of the risks their organizations are facing. In response to this we have collaborated to create advanced analytical tools and assets that can illuminate relevant risks and educate organizations about them. We also work extensively with nonconventional commodity players, such as airlines and beverage companies, to help them to quantify and manage commodity price risks.

3. Trade Book Forensic Analysis and Valuation
Our deep analytical and industry knowledge also helps commodity players assess the profitability and sustainability of their trading operations. This can be done as part of an annual growth strategy exercise, as a one-off analysis, or as transaction due diligence.

4. Target Operating Model Design for Commodity Players
Business models have evolved to mitigate external pressures, as well as integrate new businesses. As a result, many companies are struggling with proliferation and overextension. In response, we have developed tools and assets to help formulate simplified and scalable operating models. The aim of these models is to achieve high performance in today’s disruptive business environment.

5. Trading Process and IT Solution Design and Implementation
Our practitioners leverage their deep industry knowledge and access to Accenture’s wider technology landscape to provide bespoke solutions. They support clients to improve their processes, controls and systems. They help organizations obtain a detailed understanding of their options and risks, and therefore enhance business operations and deliver increased shareholder value.
Accenture undertook a comprehensive review of a global airline's joint-venture strategy to provide a comprehensive picture of current and future risks. Our multipronged approach included:

- **Sensitivity analyses** to understand key value drivers and risk levers for each joint business.
- Calculating the proportion of each joint venture's gross margin considered at risk, under the current and proposed portfolio of joint businesses.
- Analyzing company-wide liquidity risk to calculate the risk capital reserved for market risk and to assess the sustainability of current or proposed risk levels.

Our research delivered a number of key benefits. When considering changes to its entire portfolio, the airline was able to assess investments or divestments by valuing the change in risk-adjusted returns and resultant capital adequacy ratios. It can now also quantify the additional risk each party brings in joint ventures, or long-term contractual agreements, and price these into contracts. This also enables accurate forecasting of cash reserves. By controlling the risks associated with foreign currency exchange, the airline can mitigate the risk of global expansion. With insight into profit, earnings and cash flow at risk under the different scenarios, the airline can fully comprehend the resilience of its corporate finance structure.

A global beverage company wanted to optimize its procurement of commodity-based contracts and more actively manage the prices it pays. Working closely with the business, we developed an understanding of the current capabilities, identified a target-operating model and established a business case for change. The company spent in the region of $1 billion on raw commodities and Accenture was able to first identify a significant benefit from more active management and trading of the structural commodity price risk. Second, using this knowledge we were able to build processes and policies to manage trading and risk management. Third, we constructed tailored IT systems to support commodity trading and trained teams on the new systems and trading fundamentals.
Value Chain Optimization

With continuous volatility and disruption along the value chain, organizations are striving to change their forecasting capabilities to look farther and more accurately into the future. Leading companies further their understanding by factoring in competitor actions, using applied game theory concepts. From this understanding, companies can develop a robust growth strategy to take advantage of a challenging and unpredictable business environment. In executing this strategy they can benefit from improving and integrating their capabilities—for example, through price optimization.

To help businesses gain optimum success along the entire value chain, we bring the specialist experience of leading practices from different sectors of the energy and trading industries together. We do this using proprietary diagnostic and analysis tools. We typically work with clients to quantify an opportunity and then develop an experience-backed plan to capture value quickly.

1. Supply, Demand and Price Forecasting

   The success or failure of the biggest business decisions can rest on the accuracy of macro forecasts. Pursuing value chain optimization is affected by accurate operational forecasting. However, organizations have capability gaps. Accenture is set apart by its unique and sophisticated methodologies to forecast future supply, demand and prices tailored to the commodities in question. Backed by our tools and assets, our team works collaboratively to deliver solutions designed around the client’s needs. For example, we may develop and embed a new capability within an organization, or perform a shorter, one-off scenario analysis engagement.

2. Wholesale Markets Price Optimization and Analytics

   Organizations can benefit from evaluating a host of complex variables within the price-setting process. These include market volatility, price transparency, regional arbitrage, customer satisfaction, loyalty, and the elasticity of demand. Our specialists have developed exhaustive methodologies to help organizations change their price setting. These methods utilize advanced analytics, supported by appropriate changes in operating models, processes and tools.

3. Market and Competitor Analysis and Industry Benchmarking

   Accenture is uniquely positioned to help commodity players assess their performance. Our deep industry and functional knowledge drives insight into benchmarking and competitive analysis. This can enable companies to understand and assess their performance relative to the performance of their competitors and where the improvement opportunities lie. Using concepts from game theory we can simulate how competitors will react to our clients’ strategies, adding strength to the business case.

4. Growth Strategy

   The three key areas listed above are all brought together to assess opportunities for growth. Our methodology begins with identifying and assessing value propositions for potential markets and customer segments. This assessment is typically based on an understanding of the industry trends and the competitive landscape in targeted geographies. High-priority opportunities, and the business models to capture them, are then tested, relative to the existing capabilities of the business.
Client Examples

A global oil and gas company was looking to gain a greater understanding of long-term global downstream supply and demand in order to enhance strategic decision making and mitigate risks. Working with the client’s subject matter experts, Accenture pioneered an integrated modular tool generating demand forecasts over 20 years combined with a dynamic supply model. These models use sophisticated genetic algorithms to balance supply and demand in conjunction with trade simulations and investment modeling to preserve realism and improve accuracy. Accenture was able to create an interdependent global trade view, forecasting potential product shifts, logistical gaps, and further capacity investment to provide the client with advanced market knowledge.

A global oil major with a complex value chain was concerned that pricing decisions were not being made in a truly integrated or optimized way. Accenture analyzed its historical pricing to clarify the way costs were allocated, including working capital, risks and options given away. The findings were stark. From a true integrated margin perspective, as many as a quarter of customers were unprofitable. We worked with the business to implement improvements. First, a customer segmentation and price-elasticity analysis was performed and was distilled into a new, evidence-based pricing strategy. Second, we developed a tool to provide decision support for price negotiators. The key was giving them an integrated-margin view. The tool also ensured that the pricing strategy was consistently applied. Third, we expanded the analysis to realize quick wins in working capital, demand forecasting and risk. Fourth, we embedded these improvements by improving the operating model. The result was a significant increase in pocket margin across the business.
Ogan Kose is a managing director in Accenture Strategy & Sustainability and leads Accenture Trading, Investments & Optimization Strategy. Overall, he has more than 15 years of experience helping commodity players with their earnings and risk management. His primary focus areas are commodity trading, risk management, investment evaluation and financial analysis, pricing, and commodity contract structuring. At Accenture, Ogan has worked to help clients across multiple geographies, such as the United States, Europe, China and Southeast Asia.

He holds bachelor of science and master of science degrees in chemical engineering (Imperial College, London) and a master of business administration from Georgetown University. He is a member of the Global Association of Risk Professionals and is a financial risk manager. He is based in London.

ogan.a.kose@accenture.com

Miguel Gonzalez-Torreira is a director in Accenture Strategy & Sustainability and is part of Accenture Trading, Investments & Optimization Strategy. Overall Miguel has more than 10 years of experience, specifically in commodities and energy. His primary focus area is in energy value chain optimisation, helping clients defining their operating models in order to bring strategic and operational synergies across production, supply, trading, pricing and marketing of commodity products. Miguel has worked with multiple clients on trading strategy, risk management, pricing performance & profitability analysis, working capital reduction, customer portfolio optimisation, supply & demand modelling and competitive positioning.

He holds a bachelor of science and master of science in physics from the University of Santiago de Compostela, Spain, and a doctorate degree in engineering from the University of Birmingham. He is based in London.

m.gonzalez-torreira@accenture.com

Arash Dara is member of Accenture Management Consulting Strategy & Sustainability with responsibility for Accenture Trading, Investments and Optimization Strategy in the Middle East. Arash has broad experience in energy commercial optimization and supporting clients in the development of operating models to enhance and transform strategy and operations from production through to marketing. He has worked with numerous energy clients (IOCs and NOCs) on corporate growth strategies, local content development, energy supply and demand modeling, investment valuation, scenario forecasting, integrated strategic & business planning, performance management & analysis, value chain integration, competitive positioning, and product to market entry & operational strategies.

Arash holds a master of business administration from Imperial College, London. He is based in Abu Dhabi, UAE.

arash.dara@accenture.com

Bruno Berthon is the managing director for Accenture Management Consulting Strategy & Sustainability, a group committed to developing and implementing practical strategies for forward-thinking organizations while embedding sustainability as a key lever to long-term success and high performance. Bruno has gained extensive experience across a wide range of industries, from retail and consumer goods through to transportation and utilities. He specializes in large-scale transformation triggered by large M&A deals or other major operating model changes. Bruno studied engineering and law at Ecole Centrale Paris, and also has a master’s degree in macroeconomics from Paris La Sorbonne, and a master of business administration from INSEAD. He is based in Paris.

bruno.berthon@accenture.com

Ogan Kose is a managing director in Accenture Strategy & Sustainability and leads Accenture Trading, Investments & Optimization Strategy. Overall, he has more than 15 years of experience helping commodity players with their earnings and risk management.

Ogan has worked to help clients across multiple geographies, such as the United States, Europe, China and Southeast Asia.

Bruno has gained extensive experience across a wide range of industries, from retail and consumer goods through to transportation and utilities. He specializes in large-scale transformation triggered by large M&A deals or other major operating model changes. Bruno studied engineering and law at Ecole Centrale Paris, and also has a master’s degree in macroeconomics from Paris La Sorbonne, and a master of business administration from INSEAD. He is based in Paris.

bruno.berthon@accenture.com

Arash Dara is member of Accenture Management Consulting Strategy & Sustainability with responsibility for Accenture Trading, Investments and Optimization Strategy in the Middle East. Arash has broad experience in energy commercial optimization and supporting clients in the development of operating models to enhance and transform strategy and operations from production through to marketing. He has worked with numerous energy clients (IOCs and NOCs) on corporate growth strategies, local content development, energy supply and demand modeling, investment valuation, scenario forecasting, integrated strategic & business planning, performance management & analysis, value chain integration, competitive positioning, and product to market entry & operational strategies.

Arash holds a master of business administration from Imperial College, London. He is based in Abu Dhabi, UAE.

arash.dara@accenture.com
About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with approximately 259,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world’s most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$27.9 billion for the fiscal year ended Aug. 31, 2012. Its home page is www.accenture.com

Accenture is a leading provider of management consulting services worldwide. Drawing on the extensive experience of its 17,000 management consultants globally, Accenture Management Consulting works with companies and governments to identify and deliver value by combining broad and deep industry knowledge with functional capabilities to provide services in Strategy, Analytics, Finance & Enterprise Performance, Marketing, Operations, Risk Management, Sales & Customer Services, Sustainability, and Talent & Organization.