

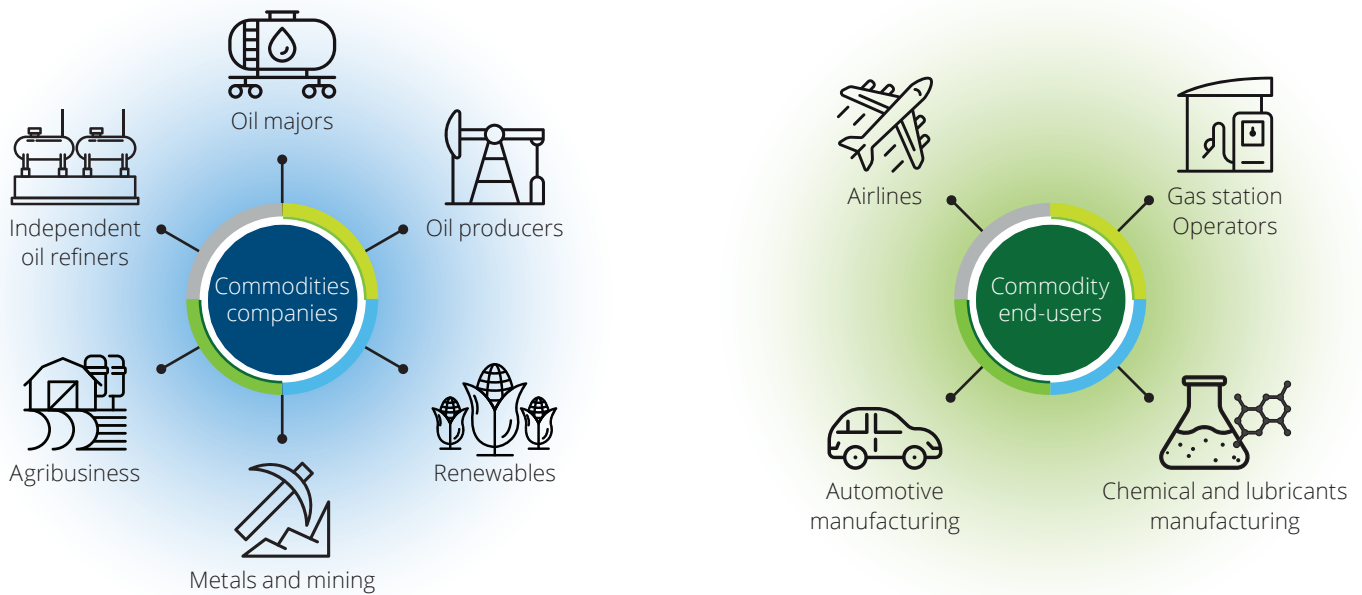
Commodity management

Navigating uncertainty: A cross-industry analysis

For companies with commodity exposure, management of physical inventory and position, market exposure, and profit and loss are consistently top of mind. In times like these—with economic uncertainty due to a health crisis, foreign and domestic political unrest, and a rapidly changing business environment—understanding and managing these factors has rarely been more crucial. This holds true across industries, often impacting companies that may not be thought of as traditional “commodity trading” organizations.

In this paper, we look at how SAP Commodity Management (CM) capabilities not only help an organization navigate these uncertain times, but also arm them with the information needed to take advantage of opportunities presented by market volatility. Highlighting examples across a variety of industries and organizations, this report showcases the specific functionality offered by SAP Commodity Management in S/4HANA that is delivering “real life” results and articulates why—now more than ever—there are opportunities for organizations to use these tools to gain a competitive advantage.

Companies dealing with commodities exposure fall into two general categories. First, there are commodities companies, whose core business is the management of commodities from origin through to the final customer. This category primarily consists of oil majors, independent oil refiners, oil producers, agribusiness companies, metals and mining organizations, and renewable fuels producers. Second, there are the commodity end-users, which are companies that need commodities to support their core business. This category includes gas station operators, airlines, and manufacturers that include automotive, chemicals and lubricants companies. While this paper will specifically address a subset of these, many of the benefits identified are applicable across multiple industries.



Importance of the integrated value chain and how it is enabled by SAP S/4HANA

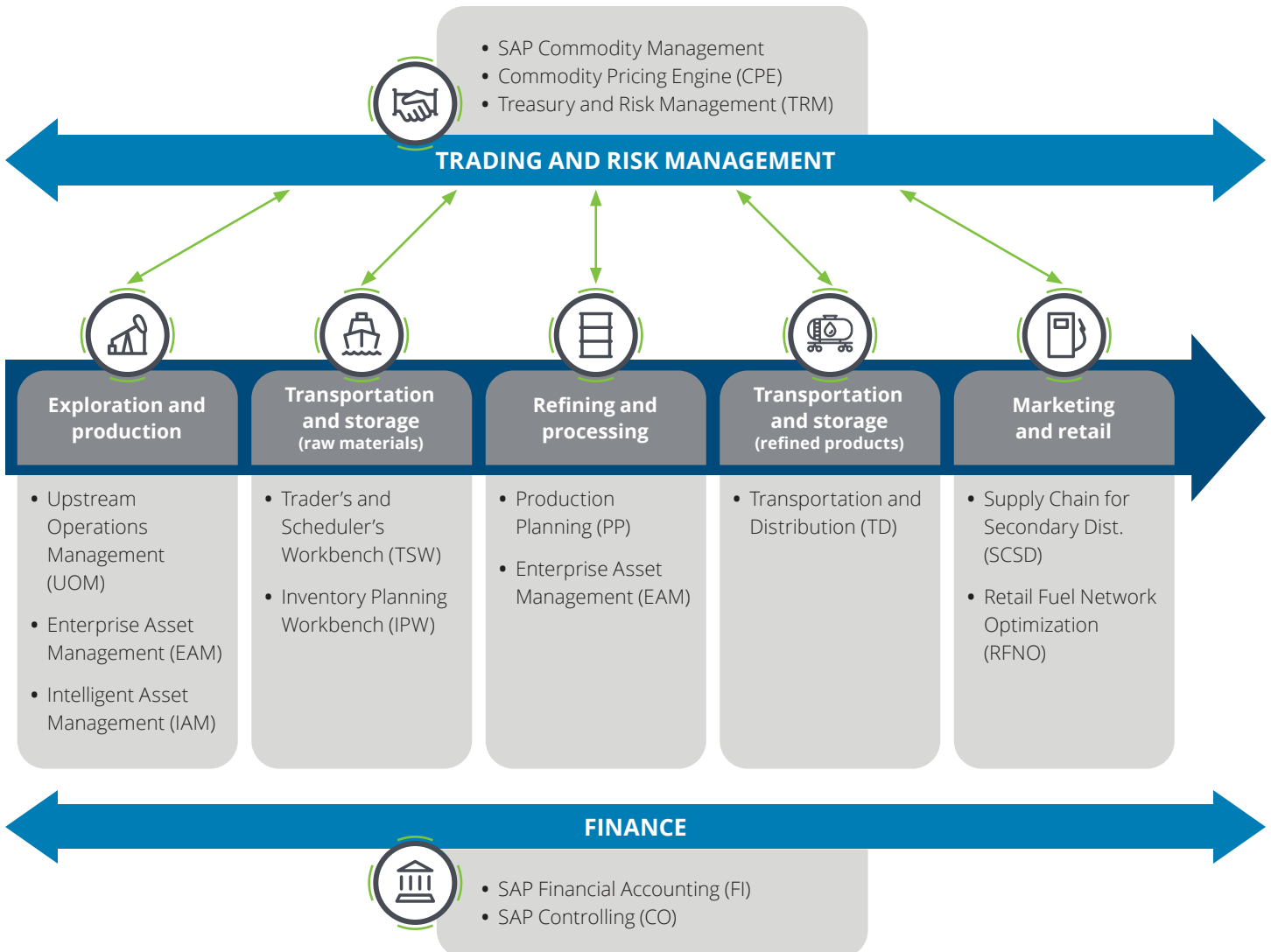
The value of SAP Commodity Management lies in the fact that it incorporates the specific aspects of trading and risk management (i.e., deal capture, complex, index-based pricing, valuation) with other functions of the enterprise that are typically managed in an ERP system (i.e., logistics, inventory, production, asset management, credit management, finance).

With SAP S/4HANA, trading information that has typically been managed separately in a trading and risk management system is now available and integrated with related data from across the enterprise. In doing so, market exposure can be combined with production and demand forecast; complex, indexed pricing can be incorporated into procurement processes; gross-margin and profitability can be calculated across the value chain; and the list of opportunities goes on. There are operational benefits as well: for example, simplified reconciliation as a result of finance and the trading functions calculating profit and loss from the records and simplified master data management as more corporate functions transact out of the same system. In the sections below, we can see how—across industry—SAP S/4HANA can bring together the select functions of an organization.

Commodities companies

For commodities companies, clear and timely understanding of inventory, market exposures, and profitability across the value chain is critical. Often operating on narrow margins, these organizations may have significant exposure to commodity market price fluctuations. An unprotected, adverse move in commodity prices can have far-reaching impacts on financial performance. Likewise, they often have broad asset networks to manage the flow of commodities that can provide tremendous potential to capture the upside of market volatility.

This section addresses case studies for how different types of commodities companies can take advantage of the SAP S/4HANA commodity solutions to improve their performance.





Oil and gas industry

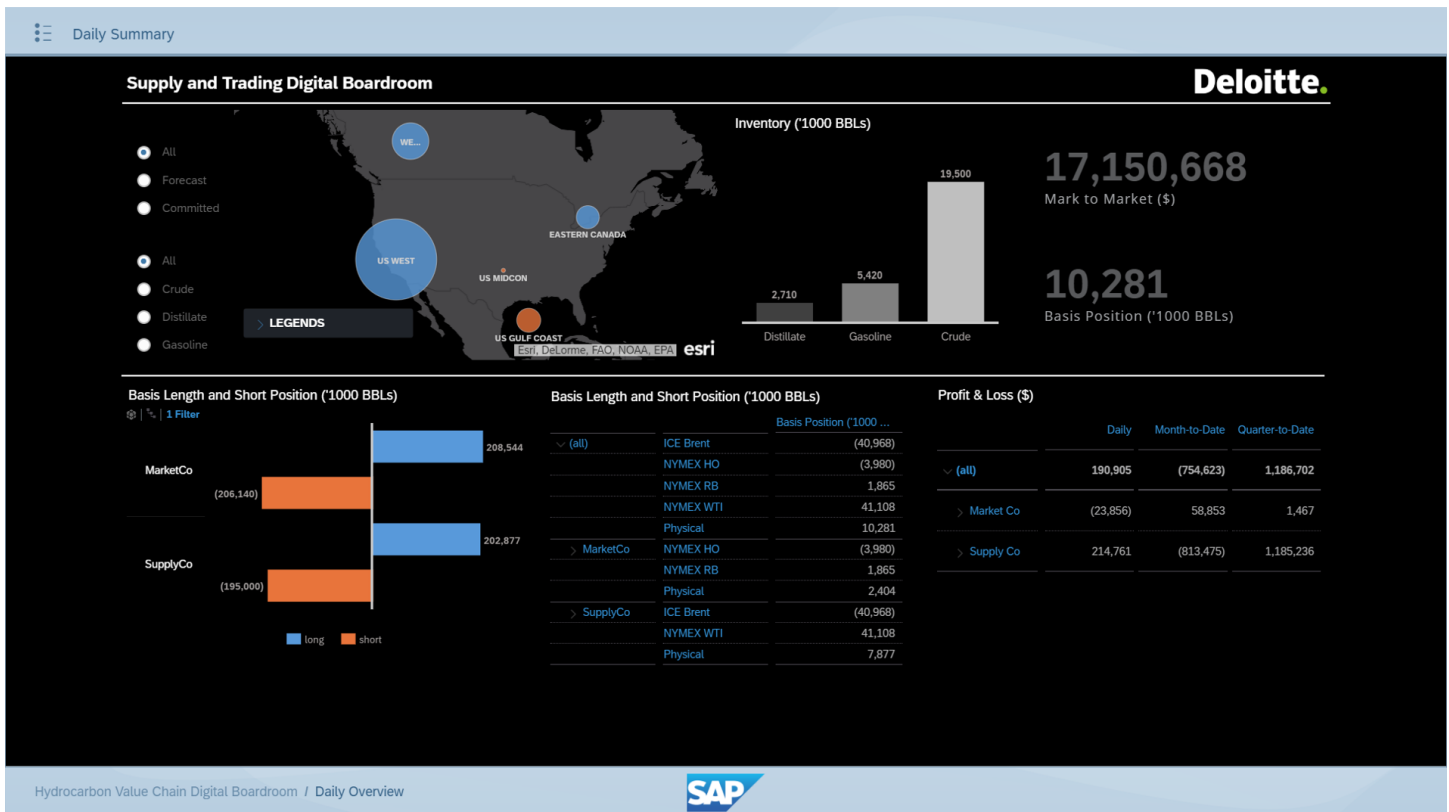
In an industry with a highly volatile market, the ability to efficiently understand and assess select organizational data and indicators is crucial to making decisions that can drive profitability. SAP Commodity Management does this by enabling an enterprise-wide view of position and profitability on a near-real time basis. This integrated view of the enterprise transactions and financials, along with the representation of the physical asset network and characteristics, can allow an organization to assess optionality and extract additional value from their existing asset portfolio.

Gross margin across the value chain

Traditionally, segregation of integrated enterprise data has been an industry-wide challenge that makes an accurate view of profitability, at best, a complicated and time-consuming process or, in some cases, impossible. However, SAP Commodity Management allows an organization to follow the molecule through the value chain and report profitability by function or even the asset level. This takes into account components across Asset Management, Upstream Operations, and Supply & Trading, Refining, Marketing and Retail.

Integrated inventory position and exposure

Similarly, SAP Commodity Management allows an organization to take advantage of integrated enterprise data in order to gain a more integrated picture of their inventory and position. The benefits are both operational and commercial. Operationally, this helps to confirm the right barrels are in the right place at the right time to both avoid cost (e.g., demurrage), as well as help confirm proper flow of the supply chain. Commercially, expanded visibility of inventory position—combined with physical forward and derivatives transaction positions—creates a broad picture of market exposure and allows for more informed decision making at the enterprise level instead of just a business unit or tradebook-level.



For a deeper dive into the value of SAP Commodity Management for Oil and Gas, see [Deloitte's 2019 Report](#).

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Agriculture industry

One of the oldest financial markets in the world, the agriculture industry faces volatility, driven by a wide array of financial, societal and environmental factors. Standard supply and demand and seasonal price cycles can be suddenly and drastically impacted by weather events, natural disasters, logistics constraints, and regulatory policy. During these times, a clear, timely understanding of inventory, position, and mark-to-market exposure across the value chain is critical for agricultural supply, trading, and marketing functions—not only to manage the downside of market swings, but also to understand where they are positioned to take advantage of these changes.

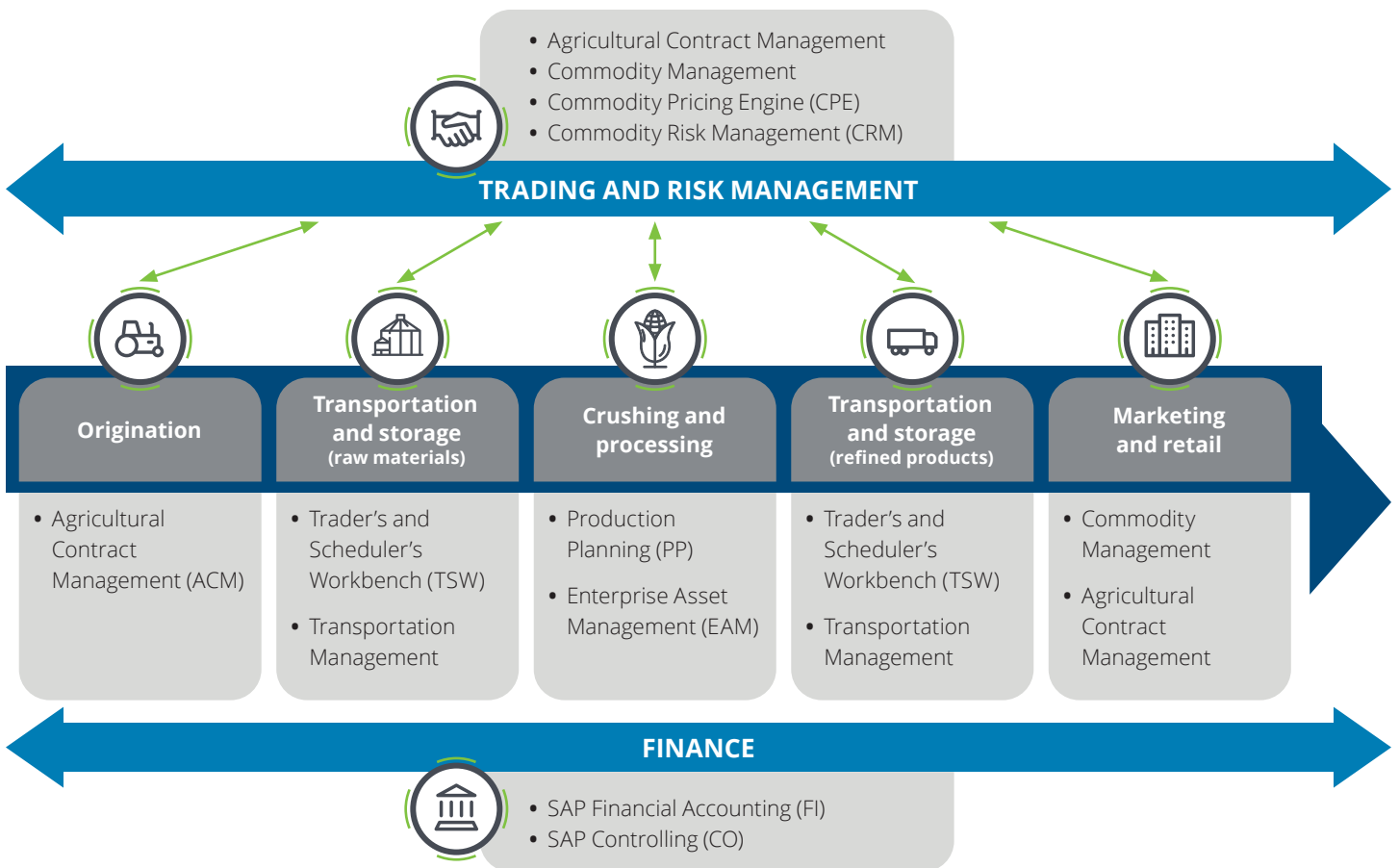
Tailored agriculture functionality

For the agribusiness industry, SAP S/4HANA has a specific module that was built from the ground up to satisfy organizational needs—both from a physical supply chain standpoint as well as a commercial contracting and hedging perspective. Because this module, known as SAP Agriculture Commodity Management (ACM), has been tailored to address specific agricultural processes from contract capture through settlement, standard commodity flow works out of the box. For the first time, this helps organizations fully embed their commodity supply, trading, hedging, and marketing activities within their ERP platform without heavy customization. This means that, during implementation, precious enhancement budget can be spent on value added capabilities like automation, optimization, and analytics.

Real-time monitoring and reporting

When it comes to analytics, having the fully integrated value chain modeled within the core SAP instance unlocks tremendous potential by providing near real-time data on the physical logistics and flow of product as well as the financial transactions used to manage the associated market exposure. This provides full transparency of the cash business during a peak activity period (like harvest)—current inventories, contract load data, forward purchases/sale—that matches up against the hedge book.

This instantaneous, single view of the truth can allow planners and operational teams to make decisions with confidence, while at the same time provide commercial decision-makers unprecedented ability to optimize tradeable products across the organization.



Commodity end-user organizations

For commodity end-user organizations, production, transportation, storage, and processing of commodities is not the core of their business; however, these commodities are the primary input to their operations or production activities. As a result, commodity price and availability play a significant role in their financial and operational results; therefore, these organizations face similar risks related to market fluctuations. SAP Commodity Management provides the opportunity to reduce procurement risk through index-based pricing and hedging, based on improved views of exposure, presenting an opportunity for competitive advantage within their industry.

This section presents high-level overviews of how commodity end-user organizations across industries can take advantage of the SAP commodity solutions to help improve their performance.



Chemical and lubricants industry

While most chemical and lubricants companies fall into this commodity end-user category, some (including fertilizer companies and chemical and lubricants functions that are integrated as part of broader oil and gas organizations) may operate more like the traditional commodities company and capitalize on the value of SAP Commodity Management referenced earlier in this paper. However,

there are benefits to utilizing SAP Commodity Management even for organizations operating as commodity end users.

Chemical and lubricants manufacturing companies face the same challenges related to commodity trading as their counterparts in other industries, including accelerating volatility in supply, demand and price, heightened focus on risk management from

executives and ever-increasing regulatory requirements. However, these organizations have not been “traditional” customers for trading and risk management systems—instead, implementing point solutions and spreadsheets along with their ERP system. SAP Commodity Management provides the opportunity to consolidate and simplify that landscape while enhancing their ability to manage exposure.



Automotive, aviation and industrial

While their core operations are not usually not directly tied to a commodity market, organizations in the automotive, aviation and industrial industries often are faced with significant exposure to commodity volatilities. In these cases, SAP Commodity Management functionality can help companies structure pricing in their procurement activities to introduce value in the management of their supply chain, as well as provide the information required to optimize their hedging strategy.

Supplier contract pricing

Through the tight integration of SAP S/4HANA and SAP Ariba, an auto-manufacturer can structure its contract with a supplier to tie the raw material component of the price to a commodity market and help enable dynamic pricing (while labor and overhead components remain fixed). This allows both the supplier and the manufacturer to take advantage of potential value and, when needed, hedge against volatile market conditions.

Managing volume based supplier discounts

Often, companies in this industry have agreements with raw material suppliers for favorable pricing based on volume. In instances in which the same supplier provides material to an intermediate parts supplier, SAP Commodity Management, specifically the Commodity Pricing Engine (CPE), can help to confirm that the Original Equipment Manufacturer (OEM) still reaps the benefits of the lower priced raw material.

Defining your company's approach

The preceding is a small sample of the benefits that can be realized through the use of SAP Commodity Management. There are countless other applications of the functionality that can introduce value in an organization, and the product roadmap is introducing additional capabilities with each subsequent release.

The current global business environment presents an unprecedented opportunity for organizations to capitalize on the benefits enabled by SAP Commodity Management, including factors such as:

- **Currently on SAP ECC:** These organizations are likely considering their replacement options as their current SAP system reaches end of life. Incorporating SAP Commodity Management may introduce additional benefits and increase the overall value case.
- **Currently on SAP S/4HANA (or in the process of migrating to SAP S/4HANA):** SAP Commodity Management becomes an easy add-on that allows the organization to extract more value from the investment already made in SAP S/4HANA.
- **Currently on standalone Commodity Trading and Risk Management (CTRM) Systems:** In addition to value introduced through data integration across the enterprise, SAP Commodity Management offers organizations the ability to reduce total cost of ownership by reducing or eliminating complex integrations and reconciliations.
- **No current CTRM system:** These organizations are likely leaving significant value on the table; SAP Commodity Management can help them realize this value. In some industries, this means making the organization a "leader" in this area even further increasing the potential value.

While the best time to take advantage of the value offered by SAP Commodity Management is yesterday, the current global business environment presents an unprecedented opportunity for organizations to capitalize on.

- **Market volatility:** In the midst of a global health pandemic and ever-increasing geopolitical uncertainty, commodity markets are as volatile as they have ever been, with frequent and significant shifts in supply and demand. Having real-time access to accurate, enterprise-wide view of data can provide advanced analytic capabilities and help enable the organization to optimize decision making.
- **Changing work environment:** Along with market volatility, the global health pandemic has also forced the organizations to change the way they work. What started as a requirement to work from home is looking, in many ways, to become a permanent (or more widespread) option for many companies. The traditional trade floor has been no exception to the shifting work model. No longer are the resources of a trading organization co-located within an office and the informal flow of information is reduced as a result. This makes the interconnected system and real-time view of data that SAP Commodity Management (integrated with an organizations ERP) can provide even more important.
- **Reduction of Commodity Management alternatives:** As the industry has seen consolidation of some of the traditional players in the CTRM space, SAP S/4HANA Commodity Management continues to become an increasingly attractive alternative. SAP continues to invest in their commodity management solution, adding foundational functionality, introducing cutting edge innovation, and incorporating the latest technical architecture components.
- **Trading value opportunity:** For organizations that are already actively managing commodity exposure, SAP S/4HANA Commodity Management offers an opportunity to provide the tools they need to enhance their decision-making in the market. For organizations that are only doing so in a limited capacity (or not at all), they are potentially leaving value on the table by not looking to take advantage of market opportunities (especially if the industry as a whole is behind the curve in market risk management capability). In either case, active management of exposure and pricing provides an additional financial lever to stabilize earnings in uncertain markets like we face today.





About Deloitte

We combine our deep trading and risk management experience with the Commodity Management capabilities of SAP S/4HANA to help clients realize new business opportunities.

- Deloitte has provided Commodity Trading and Risk Management (CTRM) services since 1996, executing engagements from trading strategy to system design and implementation.
- In that time, we have completed more than 200 CTRM-related projects across a broad range of industries.
- Further, the Deloitte global SAP capability spans more than 20 global delivery centers and has completed more than 200 SAP S/4HANA implementations.



Let's talk

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