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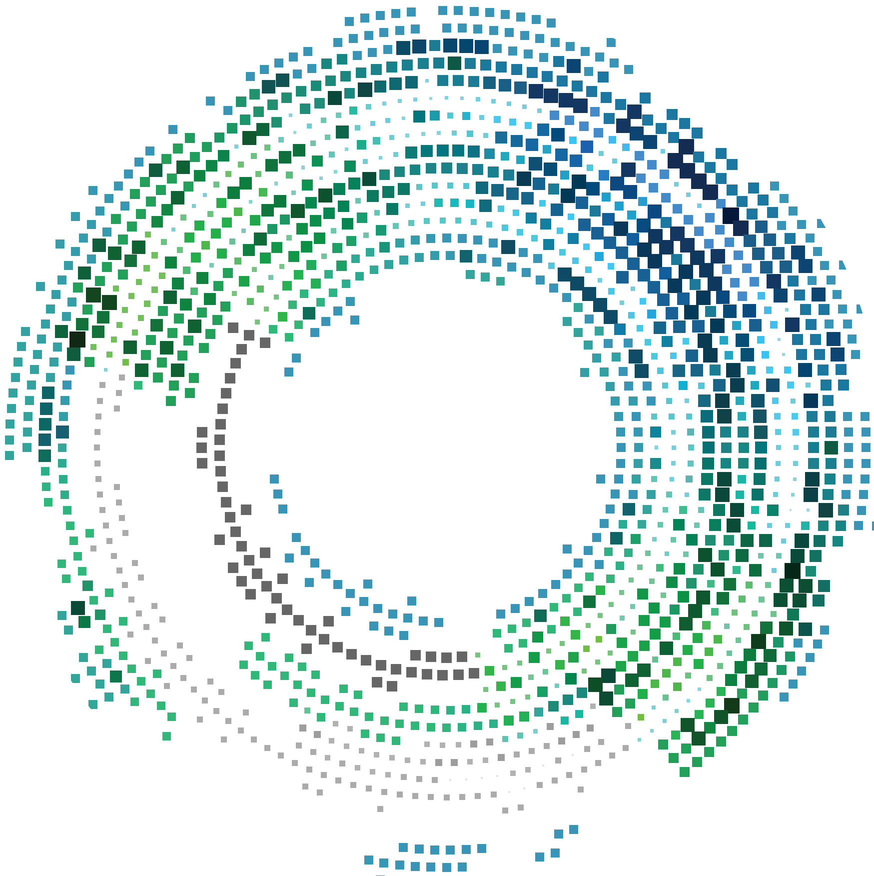

Commodity trading and risk management (CTRM)

In a virtual world

Introduction

Among other elements of the global reaction to the COVID-19 pandemic, the concept of working remotely, and independently, became an overnight reality for many organizations. In what has already become an increasingly digital world, certain aspects of working remotely may be relatively easily implemented while others may be more challenging. While remote or off-premise trading has become commonplace for many commodity trading organizations, the shift of related functions such as risk oversight, compliance, and accounting to a remote model brings new challenges.

Even in ordinary times, running a commodity trading business can present challenges for monitoring and managing the inherent risks. In a virtual world, they can be even more difficult to navigate. Maintaining adequate visibility, transparency, and accountability across the commodity transacting lifecycle in this new reality will require immediate attention to three main areas: (1) governance, (2) operations, and (3) technology. Given the overnight paradigm shift, it's likely how three areas are thought about will also need to shift.

In a virtual world, monitoring and managing inherent risks can be difficult to navigate.

Typically, establishing the governance framework and process is first and then investing in enabling technology to support the program next; however, in a world that changed overnight, technology has become paramount in the execution of the risk monitoring and oversight of a commodity trading business. In this way, it might be helpful to think of these three areas as a pyramid, with technology as the foundation, processes layered on top of technology, and governance sitting at the top providing oversight of the trading activity.

This paper aims to highlight the some of the specific, and immediate, considerations across these layers, both from the context of adequate risk oversight, as well as helping organizations understand whether they are able to support the commercial activities that enable a business to achieve its objectives. We will present questions, as well as considerations, to help organizations address the following:

- Is there adequate visibility as it relates to the ongoing trading activity?
- Is there appropriate transparency in order to govern the activity?
- Is accountability retained and enforced?

Technology

Does everybody have sufficient access to systems, processing power, and the data that they need to do their jobs?

> Are your systems enabling, or constraining, your organization's ability to trade remotely?

Are your systems enabling, or constraining, your organization's ability to trade remotely? Of these questions, one of the most immediate and important questions to answer is whether your systems and infrastructure are constraining or enabling the new remote operating model. Suddenly, simple things such as whether your traders and marketers have appropriate access to enter transactions can present challenges. Whether your systems are on-premise solutions versus cloud-based solutions can add complexity, especially if you are transitioning from the former to the latter. The bottom line is, if your traders can't enter deals in a timely and efficient manner due to limited or intermittent access to deal capture systems, middle- and back-office personnel may be significantly challenged to produce risk reports, manage to risk limits, and track confirmations and settlements.

Another specific technology consideration is whether your infrastructure, VPN capabilities, and other aspects of your IT environment are robust enough to support the processing and analytical requirements demanded by a commodity trading and risk management business. This is true for traders, marketers, risk analysts, and accounting staff. Large, computationally heavy models such as those that produce Value-at-Risk (VaR), Potential Future Exposure (PFE), or other risk performance measures often require significant memory, batch processing, or even hyperthreading which could crash the network at worst and at best take significantly longer than normal to complete. Either outcome produces potential delays that impact front-to-back operations.

Finally, very few—if any—commodity trading businesses operate in a one-system world. Typically, there is an ecosystem of front-, middle-, and back-office systems that require both manual and automated exchange of data. Simply put, this exchange of data is the lifeblood of a commodity trading business and enables the execution of the business' mission. This often requires a significant amount of integration or a significant amount of reconciliation across and within functions.

Regardless of which end of the spectrum you operate at, both will likely be more difficult in a fully remote and independent environment. Whether front-to-back office staff will have access to the data they need to execute their responsibilities will be a key determinant in the effectiveness of trading and risk management in a remote environment. Day-to-day necessities like reporting on aggregated positions and reconciling broker statements will likely become more labor intensive and require virtual coordination.

In the near term, you can consider the following:

1. Perform a review of all commodity trading risk management systems, models, applications, and tools for both access and performance—are all accessible and capable of supporting the continuing trading activity and risk analytics in a remote environment?

2. Review system controls and determine whether there are any deficiencies or gaps that will require augmentation of existing controls or establishing new controls.

3. Review manual processes that may introduce additional work and reconciliation. Determine whether any are candidates for automation.

Operations

Do you have the appropriate processes and roles, along with appropriate measures of performance and risk, to enable front-to-back operations? Are you able to execute the transacting processes/operations in a remote world in the same way that you would in the office?

Do your current processes and roles enable front-to-back operations in a virtual environment?

Even if you don't anticipate technology introducing any of the obstacles discussed above, what about the potential impact on operations? Operations, which forms the middle of the pyramid, focus on how technology is leveraged and executes the day-to-day processes that support the trading and risk management program.

Thus, the second question to ask is do you have the appropriate processes, controls, and clearly defined roles, which—along with appropriate measures of performance and risk—enable front-to-back operations? Whereas a few weeks ago, you could walk across the trade floor to ask a colleague a question or get help resolving a discrepancy, it is likely more difficult and more time-consuming to do it in a virtual world. The fact that most activities will likely take more effort and more time presents significant challenges to productivity. It is likely that everyone's availability via audio or video conferencing tools will not be the same as in-person for answering questions. For now, meeting over a cup of coffee to discuss the latest issue is no longer feasible. Will this potentially impact the effectiveness of risk operations?

From an operations perspective, everything from data management and quality control to trade processing, risk monitoring, trade surveillance, and reporting will undoubtedly be impacted in some shape or form. For instance, how quickly will you be able to identify, investigate, and resolve issues with price curves? Delays in this process can impact valuation and risk quantification and could delay reporting. If traders and marketers don't have access to the information they need to trade, how effective can they be? Another example is the new product approval process. As traders identify new opportunities in today's rapidly evolving world, something they are compensated to do, how quickly will new opportunities make their way through a new product approval process? Can it be completed quickly enough, in a remote environment, to allow traders to capitalize on what they see in the market?

Finally, continuing the price curve process challenge discussed above, if reporting is delayed, how will risk control analysts know whether there are any trade compliance violations, delegation of authority issues, or credit limit encroachments? How timely will you be able to validate counterparty collateral requirements? What starts as a simple and harmless data issue turns into a delay in the end-of-day process and can ultimately impact many downstream processes because the ease with which people used to connect with each other has changed.

In the near term, you can consider the following:

1. Review your data strategy for consistency, appropriate inclusion, and assess whether data quality controls are appropriate and can be executed in a remote environment
2. Assess whether middle and back offices have appropriate access to efficiently support review, confirmation, and settlement of transactions
3. Review your processes involved with generating risk measures, reporting on limit encroachments, and escalating as necessary
4. Assess how timely reporting can be conducted in a virtual environment and how well-positioned the business is to follow-up on exceptions and exposures.

Governance

Do you have the right oversight and management in place to enable trading and commercial activities, while also monitoring trading risks? Do your policies address all front-to-back functions in a remote environment, providing for visibility, transparency, and accountability?

Is the proper oversight and management in place to control trading risks?

Finally, when we consider governance, the capstone to the pyramid, the first question that comes to mind is do you have the right oversight and management in place to control trading risks? This starts with your policies and procedures.

In the pre-COVID-19 world, policies typically either allowed for off-site trading with appropriate controls and process requirements documented or off-site trading was prohibited. Since the latter is no longer a possibility, policies, procedures, and documentation must change to address the new virtual word. This should include everything from authorizations to additional controls, roles and responsibilities and a virtual oversight framework.

Risk governance hierarchies may also change out of necessity. Do you have clearly defined steps for escalating emerging risks and risk policy violations? Even if escalation procedures are clearly defined, they may need to change in a remote world. It will be important to establish approved communication methods and a resolution confirmation and documentation process.

Finally, the way risk management committee meetings are conducted may need to change. While it's admittedly easy to schedule a video or teleconference to conduct a normally scheduled meeting, impromptu meetings to address urgent issues or emerging risks will present new challenges when everyone is no longer located in the same building. Agendas and reports will likely need to be distributed further in advance of meetings to give more time for preparation. While it is undoubtedly more difficult to provide oversight for something that you can't directly witness, the availability of collaboration tools should help mitigate some of the increased complexity of conducting these meeting remotely.

In the near term, you can consider the following:

1. Perform a review of the risk policy and related control framework—are there any control points that will be potentially compromised in a remote environment? Can a supplementary or compensatory control be put in place to address this?
   - For example, a control may exist to review all inactive contracts for potential deactivation annually. You may wish to perform an immediate review and take action today to remove one or more from their portfolio.
   - Consider implementing additional redundancy controls to address increased risk areas, especially as it relates to data consolidation, validation reviews, etc.

2. Prepare a report that can be distributed to executive management, the board of directors, or other stakeholders in order to provide perspective and confidence that proactive action is being taken

3. Perform a thorough review of potential pressure points in risk and credit policies, as well as policy requirements that may restrict responsible commercial activity in a remote environment,
   - Are there certain policy items that need to be amended to address these concerns with management support?

Conclusion

One of the impacts of COVID-19 on companies has been the rapid shift to virtual work environments. For commodity trading organizations, employees across the front, middle and back office have been physically separated, requiring those organizations to re-evaluate their ability to maintain appropriate visibility, transparency, and accountability from the time a new trade is executed, all the way through to the time that it is settled. Maintaining the ability to measure and monitor risks associated with the trades, as well as ensure compliance, are critical functions that must be retained. In order to do so, commodity trading organizations will need to rapidly assess and, if necessary, modify their capabilities in order to maintain business as usual. The hurdles and obstacles are present as trading organizations try to adapt to the "new normal" are numerous and substantial. It may be easy to lose the forest for the trees. As such, it will be important to have a clear focus and an organizing purpose for the changes that are prioritized and implemented. We believe that the approach laid out in the discussion above provides a simple yet broad view of the specific elements. By focusing on the pyramid view and the three elements of technology, process and governance, commodity trading organizations can be better positioned to implement important changes and provide some assurance to stakeholders that commercial goals may still be achieved while also maintaining appropriate oversight. In order to do so, the priority actions that can be considered in the near term include:

1. Assessing technology capabilities, including system access, processing capabilities and integration of systems to support data aggregation, risk analytics, and metric measurement;

2. Identifying and addressing operational risks that emerge due to working in a new, remote paradigm, and modify or enhance underlying processes in order to help ensure that the integrity of the transaction lifecycle is retained, and that roles, responsibilities and activities are well understood; and

3. Ensuring that your governance infrastructure, including risk policies, controls, and organizational hierarchy, are updated to reflect the reality of off-premise trading, risk oversight, compliance, and accounting. Every component of the transaction lifecycle should be considered, and updates to the policy and control environment should be prioritized so that stakeholders can have confidence that an appropriate level of oversight still exists

Working in a virtual environment requires immediate and significant adaptations to your business and operations and can be significantly enabled by focusing development efforts in the areas of supporting technology, operations and enabling processes, and the governance framework.

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