UNIVERSITY OF TOLEDO INTERNAL AUDIT DEPARTMENT
MANAGE FINANCIAL RISK

Control practices

The following control objectives provide a basis for strengthening your control environment for the process of managing financial risk. When you select an objective, you will access a list of the associated business risks and control practices. That information can serve as a checklist when you begin reviewing the strength of your current process controls.

This business risk and control information can help you assess your internal control environment and assist with the design and implementation of internal controls. Please note that this information is at the generic business process level and many companies will need to go beyond generic models to address the specific business processes that support the financial and nonfinancial disclosures being made. You can combine the insight of this business risk and control information with your industry-specific knowledge and understanding of your company's environment when conducting internal control assessments and designing and implementing recommendations.

Effectiveness and efficiency of operations

A. Treasury and derivatives risk management activities are controlled.
B. Interest rate risk is controlled.
C. Foreign currency risk is controlled.
D. Commodity pricing risk is controlled.
E. Foreign investment risk is managed.
F. Risk management activity and derivatives transactions are properly authorized.
G. All derivatives transactions are accurately processed and reported.
H. Exposures and derivative positions are frequently measured and evaluated.
I. Senior management and the board of directors provide oversight and direction of derivatives activities, including the development and communication of trading or risk management strategy and policy.
J. An effective organizational structure provides a foundation for controlling risk management activities.
K. A process for financial risk monitoring and control is in place
L. Strategic treasury reviews are used to identify the critical financial risks the company faces and to evaluate whether their treasury systems are cost-effective in achieving the vision and reducing risks to an acceptable level.
M. Internal audits of financial derivatives activities are conducted.
N. Management segregates incompatible duties and the integrity of application systems and key records and documents used to process derivative transactions is protected.

Effectiveness and efficiency of operations

A. Treasury and derivatives risk management activities are controlled.

Business risks

- With respect to derivatives, without appropriate business process controls, management may be unaware of, and therefore unable to prevent, significant losses. For example, a clear coherent strategy may not exist to define the risks to be hedged, the instruments to be used and why, the limits on the use of such instruments, the level of risk that management is willing to assume, and the counterparties and dealers with whom the company is willing to do business.
- While many different types of derivatives exist, they share common elements of business risks. For more information on risks inherent in the process of managing financial risks, see the Business risk model in the Risk definition overview.

Control practices

1. Appoint and make responsible a person with risk management responsibilities for: being aware of key announcements or events likely to affect the markets, monitoring each day's activities and occurrences, and monitoring at least twice daily the company's outstanding contracts and net foreign currency positions.
2. Evaluate foreign exchange policies and risk management practices frequently as market conditions change.
3. Define and monitor the limits for hedging and trading activities according to established written risk management policies
4. Allow only professionals with the requisite skills and experience to transact deals and manage risks, and to process, report, control, and audit derivatives activities.
5. Rotate managers regularly in their assignments to separate functions and processes and to avoid excessive specialization so that managers develop broader experience.
6. Produce reports that post all market transactions to provide management with a glimpse of the unrealized losses that risk managers have accumulated in their current positions.
7. Produce reports that summarize the risk profile of the entire company portfolio and include information on contracts that have been opened and the unrealized gains and losses that have occurred on individual positions.
8. Establish risk management performance measures and benchmarks.
9. Inform banks, counterparties, and other third parties as to what the company's procedures and policies are.
10. Ensure proper segregation of duties exists among deal execution, processing and transaction edits (changes), settlements, and accounting.
11. Ensure all derivatives contract documentation is confirmed, timely and properly executed, maintained, and safeguarded.
12. Review terms of the contract, prior to entering into a derivatives transaction, to ensure they are legally sound. Include a review of the timing of outstanding contract terminations and the calculation of settlement amounts payable to or between parties upon the termination of a contract agreement.
13. Develop an oversight group to meet regularly and evaluate strategies, hedging levels, and exposures.
14. Establish a monetary limit on experimentation with new financial products.
15. Adopt an appropriate accounting and disclosure policy consistent with generally accepted accounting principles and full and fair reporting.

B. Interest rate risk is controlled.

Business risks

- Interest rate risk--The possibility or likelihood that interest rates will move significantly away from forecasts, creating additional borrowing costs or lower investment yields. For example: risk that a future spot interest rate will deviate from its expected value; price risk associated with holding a fixed-rate debt instrument as a result of fluctuations in the instrument's yield.

Control practices

1. Define a coherent funding and risk management strategy to ensure that different functional groups do not take opposing market views. (For example, different market assumptions could arise between a short-term borrowing and investment group and a foreign exchange group.)
2. Track and monitor the movements of interest rates and exchange rates.
3. Build up cash reserves during low interest rate periods.
4. Manage interest rate exposures using derivative-type tools including exchange-traded futures and options and OTC products such as swaps, caps, collars, floors, and swap options.

C. Foreign currency risk is controlled.

Business risks

- Currency risk--Lower operating margins as a result of foreign exchange movements.
- Unexpected losses on contracts as a result of foreign exchange movements.
- Pricing, billing, purchasing, and other decisions made by operating personnel without considering the currency risk implications.
- Losses resulting from oversights, mismatch, and unauthorized speculation.

Control practices

1. Obtain current forecasts of foreign exchange movements in a timely manner. Ask banks to provide assistance with information on recent rate movements, relative inflation rates, balance of payments and trade, money supply growth, and interest rate differentials.
2. Evaluate economic and operating exposure to better understand the extent of foreign exchange risk.
3. Implement operational hedges of foreign exchange risks. Use the following techniques to hedge foreign exchange risk: netting, pooling, alternate billing or purchasing currency, alternate sourcing, strategic plant location, currency risk-sharing agreements, internally diversifying cash inflows and outflows, and relationship banking.
4. Hedge foreign exchange risk using derivative instruments such as forward foreign exchange contracts, currency futures, currency swaps, and currency options.

D. Commodity pricing risk is controlled.

Business risks

- Commodity pricing risk--Significant changes in commodity prices can affect margins and competitive position.
- Purchasing commodity risk derivatives without a specific strategy can cause more harm than good.

Control practices

1. Determine exposure to commodity risk by reviewing the extent of usage of key commodities in operations and the impact on products and services to customers.
2. Develop a risk management strategy for significant commodity risk, including determination of the primary objective (preservation of profit margins, sources of supply), duration of risk period (span from the time the decision is made to produce a product until the time the product is actually made), and commodity holding risk (amount of inventory, production, and purchase commitments at any point in time).
3. Determine a group responsible and accountable for implementing the risk management strategy. (For example, will risk management fall to treasury, operating management, or a separate trading group?)
4. Ensure the financial contracts (futures, forwards, swaps, or options) that are entered into by the company are under the responsibility of a group with accountability, such as the treasurer.
5. Develop a comprehensive trading policy to outline the company's position regarding commodity trading operations.
6. Assign individual limits to each risk manager. Allow only the treasurer or the CFO or finance director to exceed these position limits.
7. Limit access to only specific institutions the company works with in executing trades.
8. Establish credit limits with every counterparty and evaluate periodically based on the volume of trading with and the financial strength of the counterparty.
9. Utilize automated trading wherever possible to reduce the risk of error.

E. Foreign investment risk is managed.

Business risks

- Sovereign and political risk--The risk of losses of foreign invested capital and funds.

Control practices

1. Consider the following factors when evaluating foreign investment risk: estimated future cash flows (dividends and future sales price of the investment), a proper discount rate (cost of capital which needs to be higher for foreign investments), currency risk (changes in exchange rates), political risk (possibility of nationalization, expropriation of assets without compensation, blockage, or other restrictions resulting in losses to the company).
2. Develop an awareness of local political realities prior to investing significantly in foreign assets.

F. Risk management activity and derivatives transactions are properly authorized.

Business risks

- Authority risk--The possibility that risk managers will take risks that management does not authorize or understand, or that they will initiate activities that are inconsistent with the risk management strategy or sound business practice. Authority risk also covers those situations in which risk managers are not empowered to act, when action is clearly warranted.
- Limit risk--The possibility that risk managers will exceed the terms of their empowerment and commit unauthorized acts, such as unauthorized speculation.
- Performance incentives risk--The possibility that risk managers are monitored with performance measures that create incentives to act in a manner that is inconsistent with the risk management strategy

Control practices

1. Establish documented policies and procedures to govern the company's use of derivatives.
2. Specify policies that clearly define limits of acceptable risk.
3. Ensure policies governing the use of derivatives identify the following: management objectives, management oversight and responsibilities, risk limits, specific derivative instruments that can be used, realistic performance standards that do not encourage speculation, risk management and reporting processes, and management and business process controls.
4. Communicate exposure limits that outline how much of the company's exposure treasury can hedge.
5. Establish limits on how much market risk the company is willing to assume, including: notional or contract value limits; mark-to-market limits or loss limits; and sensitivity limits (limit positions based on estimated exposures to price movements using certain time and confidence intervals).
6. Document individuals permitted to enter into derivatives transactions and amounts they are allowed to spend.
7. Establish standards and guidelines for reporting to management derivatives positions and risks, strategy effectiveness, and performance measurements.
8. Establish a counterparty approval policy to determine the type of counterparty with whom the company is willing to engage in derivatives transactions.
9. Establish a maximum contract amount or market exposure to a counterparty.
10. Establish a policy that specifies when collateral or other credit enhancements are required.
11. Establish procedures to regularly review counterparty exposures and creditworthiness.
12. Establish hedge accounting requirements for the various products being used for risk management purposes.
13. Establish formal policies to address appropriate accounting and financial statement disclosure issues related to derivatives transactions.

G. All derivatives transactions are accurately processed and reported.

Business risks

- Completeness and accuracy risk--Processing and settlement of derivatives transactions are not complete and accurate.

Control practices

1. Confirm all transactions with counterparties via a group independent of those making the actual transaction.
2. Reconcile confirmations and position statements from counterparties to company records via an independent group.
3. Establish policy that indicates who is responsible for recording derivative activity and how that activity is recorded in the company's books and records.
4. Implement procedures to address issues such as identification of transactions that are settling and notifying the counterparty and company's bank of impending settlements.
5. Establish controls to resolve disputes over contract specifications.

H. Exposures and derivative positions are frequently measured and evaluated.

Business risks

- Measurement risk--If you cannot measure your exposures to market, credit, and other risks resulting from a derivatives transaction, you cannot manage it. If you cannot manage it, you cannot control it. If you cannot control it, why are you doing it?

Control practices

1. Establish sophisticated risk management systems to quantify risk exposures arising from changes in market factors.
2. Evaluate risk exposures under various scenarios that represent a broad range of potential market movements and corresponding price behaviors, and that consider historical and recent market trends.
3. Measure derivatives-related risks for each major portfolio, branch, and profit center.
4. Create an aggregate risk profile by aggregating the risks across profit centers and branches.
5. Review and validate all risk measurement applications and models at least annually.
6. Establish risk management systems to evaluate the possible impact on the company's earnings and financial position of adverse changes in interest rates and other market conditions that are relevant to the company's risk exposure. These systems also evaluate the effectiveness of financial derivatives transactions in the company's overall risk management.

UNIVERSITY OF TOLEDO INTERNAL AUDIT DEPARTMENT
MANAGE FINANCIAL RISK

I. Senior management and the board of directors provide oversight and direction of derivatives activities, including the development and communication of trading or risk management strategy and policy.

Business risks

- Reputational, hedging, authority, limit, and performance incentives risks increase if senior management does not understand the following: 1. which individuals within the company are responsible for initiating derivative transactions? 2. What are the individuals doing and why? 3. What are the nature and magnitude of the risks the individuals are taking on behalf of the company?
- The company's exposure to currency, interest rate, commodity, and market risk increases if it fails to document and communicate strategies and hedging policies and if the monitoring process to ensure that strategies are being implemented and policies are being followed is inadequate.

Control practices

1. Include in proposals for utilizing derivatives: a description of the relevant financial products, markets, and business strategies; the cost of establishing sound and effective risk management systems and of attracting and retaining professionals with expertise in derivatives; a process for measuring, monitoring, and controlling risk; the relevant accounting and financial reporting implications; and the relevant tax implications.
2. Mark positions to market daily so the company knows the value of its positions.
3. Ensure those executing derivatives activities have a solid understanding of what is being hedged. (Typically interest rate, currency, and commodity risks are hedged. Each transaction should be done to mitigate one or more of those risks.)
4. Prevent reward systems from encouraging unacceptable behavior. (For example, ensure that derivatives strategies do not exist solely to yield profits with disregard to the amount of capital at risk or the length of time that capital is at risk.)
5. Establish effective controls over unauthorized trading or speculation. These include written risk limits, automated exception reporting, and strong internal auditing.
6. Require the board of directors (or at least the audit committee) to look at all the issues surrounding business controls over derivatives.
7. Establish a comprehensive risk management system that requires the following: effective supervision by the board; procedures that identify and quantify risk on a timely basis; limits on the level of risk with respect to counterparty credit and concentrations; reports to senior management that present the nature and level of risk taken and compliance with approved policies and limits; and auditing procedures to ensure the integrity of measurement, control, and reporting systems as well as compliance with policies and procedures.

J. An effective organizational structure provides a foundation for controlling risk management activities.

Business risks

- A poor organizational structure will concentrate authority and responsibility in too few individuals, increasing authority, limit, and performance incentives risk.
- If senior management is not involved in organizing risk management activities, reputational, hedging, and other risks will exist.

Control practices

1. Engage the following departments in the risk management program: treasury, purchasing, credit, finance, risk management, operations, and internal audit.
2. Assign treasury's responsibilities in the risk management program to include: documenting the overall risk management strategy, executing and administering interest rate and currency risk management programs, establishing credit lines with counterparties, and processing settlement of all hedging activities.
3. Assign purchasing's responsibilities in the risk management program to include: managing the risk associated with commodity purchases such as energy and agricultural products.
4. Assign credit's responsibilities in the risk management program to include: approving all counterparties and counterparty limits, monitoring counterparty exposure, and establishing credit enhancement, such as collateral.
5. Assign Legal Affairs' responsibilities in the risk management program to include: reviewing all contractual arrangements such as International Swaps and Derivatives Association (ISDA) standard master agreements and master netting agreements.
6. Assign finance's responsibilities in the risk management program to include: accounting departments establish hedge-accounting policies and record derivative transactions for financial reporting purposes, and tax departments establish procedures to properly designate the purpose of all hedging transactions from a tax-reporting perspective.
7. Assign operations' responsibilities in the risk management program to include understanding the key business processes and working with treasury groups to help operating managers understand the significant financial risks, so that they can take the appropriate actions to manage risks locally in areas such as billing, sourcing, and pricing.
8. Assign internal audit's responsibilities in the risk management program to include performing periodic audits of treasury or purchasing areas.

K. A process for financial risk monitoring and control is in place

Business risks

- Without well-defined process and executive management involvement and support, financial risk management may be nothing more than empowering foreign exchange or interest rate risk managers to do whatever they want to do. The result is unauthorized and unacceptable risk taking.
- Globalization of markets and fewer prospects for growth create the need for a closer look at how exposures to currencies, interest rates, equities, and commodities are being managed.
- Companies expanding their international operations through direct overseas investments and increased exports are exposed to greater degree of risk.
- The link between financial risk and business performance is tightening as financial markets become more volatile, global competition increases, and foreign source profits rise.

Control practices

1. Establish an independent unit or individual responsible for developing and supporting risk management systems, establishing market and credit risk approval processes, developing appropriate risk control practices, reporting risk exposures, and monitoring compliance with the company's risk position against established policies and approved limits.
2. Require a CFO or treasurer to implement a comprehensive financial risk management process that includes: analyzing all risk exposures, identifying potential scenarios and probabilities of risk, reviewing existing risk policies to reflect current market realities, involving senior management in determining risk levels, and educating operating managers on local risks.
3. Centralize foreign exchange risk management along with treasury activities such as netting and cash flow management.
4. Establish a policy to govern the use of derivatives, including: the instruments that can be used; the maturities that can be entered into; the acceptable amounts; and the allowable banks and counterparties.

L. Strategic treasury reviews are used to identify the critical financial risks the company faces and to evaluate whether their treasury systems are cost-effective in achieving the vision and reducing risks to an acceptable level.

Business risks

- Lack of focus on strategic treasury risk.
- Communications risk--Ineffective communications between treasury, senior management, and operations regarding financial risks.

Control practices

1. Evaluate the effectiveness of response to foreign exchange risk. Specifically, consider or continue to centralize foreign exchange management as it improves controls, provides increased expertise, and facilitates better reaction to market timing and decision making.
2. Address liquidity risk, which arises when there is not enough cash available to meet current obligations, in terms of the company's controls to mitigate this risk and the likelihood and pervasiveness of this risk.
3. Address interest rate risk, which is the possibility that rates will move significantly away from forecasts and create additional borrowing costs or lower investment yields, in terms of the company's controls to mitigate this risk and the likelihood and pervasiveness of this risk.
4. Establish policies, systems, and processes to control credit and counterparty risk.
5. Audit the full range of treasury risk-related activities in areas such as foreign exchange, interest rate, liquidity, and credit and counterparty in terms of their effectiveness in controlling these risks.

M. Internal audits of financial derivatives activities are conducted.

Business risks

- Weaknesses in business process controls will not be detected on a timely basis.
- Systems deficiencies will not be detected on a timely basis.

Control practices

1. Assign audit responsibilities to competent professionals who are independent of the unit or function being audited and yet knowledgeable of the risks inherent in derivatives used by that unit or function.
2. Ensure the scope of audit coverage is commensurate with the company's level of risk and volume of activity. (For example, audit coverage focused on risk management is likely to be included in the audit of the company's treasury or risk management function.)
3. Ensure the audit scope for all financial derivatives instruments includes an appraisal of the soundness and adequacy of business process controls and the testing of irregularities and of compliance with the company's policies and procedures.

N. Management segregates incompatible duties and the integrity of application systems and key records and documents used to process derivative transactions is protected.

Business risks

- While many different types of derivatives exist, they share common elements of business risks. For more information on risks inherent in the process of managing financial risks, see the Business risk model in the Risk definition overview.

Control practices

1. Establish the right organizational structure to ensure adequate supervision of risk management activities, including: appropriate management oversight and review; appropriate segregation of duties between departments; and the proper reporting of positions and risks.
2. Establish appropriate segregation of duties between departments. For example, rather than have treasury perform all record-keeping responsibilities, assign certain responsibilities such as counterparty confirmations and counterparty reconciliations to another department (such as accounting).
3. Ensure systems support for financial derivatives activities will accommodate the transactions in which the company engages, including efficiently processing and settling the volume of derivatives transacted, providing support for the complexity of transactions booked, and providing accurate and timely input.
4. Ensure systems support for financial derivatives provides basic processing, settlement, and control of derivatives transactions.
5. Develop and document a business recovery plan that outlines steps to take in the event of a disaster, assigns responsibilities to specific individuals, and maintains sufficient records off-site.