Agenda

- Where’s the risk?
- Derivatives as a mitigating strategy
- Implications on financial reporting
- A robust risk management framework
- Practical considerations for internal auditors
- Conclusions
Where’s the risk?

- Financial risks embedded into the operation of enterprises are originated mainly in these places:
  - Procurement department
  - Treasury

- Organization affects identification of risks
  - Business units and geography
  - Cross-asset problem
Examples of exposures

• Foregin currency
  • On January 2014 an importer based in Toronto budgets a purchase plan of industrial parts from its US provider @90¢/USD. Quarterly orders are placed for the same nominal amount. No hedging scheme is established.
Examples of exposures (cont.)

![Historical USDCAD spot rate](chart)

- 9 years
- 6 years
- 10.5 years
- 5.1 years
- 2.6 years
- 1 year
- 1.4 years

Source: Federal Reserve
Examples of exposures (cont.)

- Interest rate
  - A company discusses whether to contract a loan to fund an expansion. Options are 4% fix rate or float the debt with benchmark plus spread. Principal amount is $100mm.
Examples of exposures (cont.)

- Commodity price
  - An oil sands upstream company has experienced losses from the WTI price but some gains from FX CAD/USD. Under different sensitivity scenarios for 2015, its profitability is being assessed.

Source: Energy Information Administration
Examples of exposures (cont.)

![Daily returns distribution WTI](image)

Nov 28th
Derivatives as a mitigating strategy

- Different instruments available
  - Swaps, forwards, futures
  - Options and elaborated structures
  - A number of sellers

- Many advantages in their use but have embedded risks
  - Credit risk
  - Liquidity risk (i.e. Margin)
  - Legal risks (ISDA agreement)
Examples of derivatives

Underlying long USD Exposure

Forward rate

USDCAD

Hedging Instrument 1 (forward)

Strike

USDCAD

Rate lock
Examples of derivatives (cont.)

Hedging Instrument 2 (collar)

Hedging Instrument 4 (participating forward)

Hedging Instrument 3 (purchased put)

Hedging Instrument 5 (fade-in forward)

... ideas?
Implications on financial reporting

- Recognition alignment/mis-alignment
  - Forecasted transactions
  - Firm commitments

- P&L volatility / EBITDA volatility
  - Case: Highly expected foreign currency denominated sale of finished goods with a derivative

**Income Statement**

<table>
<thead>
<tr>
<th>EBITDA</th>
<th>Sales/Cost of Sales</th>
<th>Financial income/expense</th>
<th>Other income/expense</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Effective portion of FX/commodity risk hedge</th>
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<tbody>
<tr>
<td></td>
<td>Effective portion of interest rate risk hedge</td>
</tr>
<tr>
<td>Speculative derivatives</td>
<td>Ineffective portion of hedges</td>
</tr>
</tbody>
</table>
Implications on financial reporting (cont.)

- Peer comparison
- Costs vs benefits of hedge accounting
  - Risk management policy
  - Documentation
  - Monitoring (e.g. hedge effectiveness)
Complexities of hedge accounting

<table>
<thead>
<tr>
<th>Potential Economic Benefit</th>
<th>Financial Statements Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

- Economic hedges
- Hedge accounting compliant hedges
Other accounting considerations

- Disclosures
  - Qualitative vs Quantitative
  - Market, credit, liquidity risks
    - Sensitivities, credit exposure, maturity analyses

- Fair value measurement
  - Valuation models
  - CVA
A robust risk management framework

- COSO for Derivatives
  - Policy and control
- Other practices
  - Capital requirements for banks
Components of Control

- Control environment
  - Integrity and Ethical Values
  - Commitment to Competence
  - Board of Directors or Audit Committee
  - Management’s Philosophy and Operating Style
  - Organizational Structure
  - Assignment of Authority and Responsibility
Components of Control (cont.)

- Risk Assessment
  - Entity-Wide Objectives
  - Activity-Level Objectives
  - Risks
  - Managing Change

- Control Activities

- Information and Communication
  - Information
  - Communication
Components of Control (cont.)

- Monitoring
  - Ongoing Monitoring
  - Separate Evaluations
  - Reporting Deficiencies
Practical considerations for internal auditors

- Some tips on the operation with derivatives:
  - Knowledgeable board, mandate to review limits
  - Review of contracts and confirmations
  - Separation of functions
  - Valuation models
  - Effective implementation of manuals/guidance
  - Systems and sources of information
Practical considerations for internal auditors (cont.)

- When things go wrong:
  - “The rogue treasurer”
    - Broad action field
    - Treasury seen as profit center
    - Discretionary entry/exit on derivatives
    - Lack of supervision from Board/Committee
Practical considerations for internal auditors (cont.)

- When things go wrong:
  - “A tale of a restatement”
    - Aggressive hedging strategy
    - Little knowledge of valuation techniques
    - Inadequate implementation of the hedge accounting model
Practical considerations for internal auditors (cont.)

- When things go wrong:
  - “The friendly trader”
    - Inadequate organizational structure
    - Lack of controls at the transactional level
    - Ineffective audit function
Conclusions

- Knowledge is key!
  - Objective of the use of derivatives
  - Processes, organization, controls
  - Technical aspects (e.g. Valuation)
  - Accounting and regulatory changes

- For the internal auditor
  - Prepare in advance
  - Question everything
  - Use your advisors wisely
References

- **COSO**: Internal Control Issues in Derivatives Usage: An Information Tool for Considering the COSO Internal Control - Integrated Framework in Derivatives Applications

- **PCAOB**: AU Section 332 - Auditing Derivative Instruments, Hedging Activities, and Investments in Securities

- **IASB**: IAS 39 Financial Instruments: Recognition and Measurement
  - IFRS 9 Financial Instruments
  - IFRS 7 Financial Instruments: Disclosures
  - IFRS 13 Fair Value Measurement

- **KPMG**: First Impressions: IFRS9 Financial Instruments
  Derivatives and Hedging Accounting Handbook (USGAAP)