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INFORMATION

Applied FX Risk Management

Amarjit Sahota , Director - HiFX Risk Management Inc
Peter Van Dyke , Sr. Finance Manager –Harley Davidson Canada

KLARITY fx

Session Details

- Monday November 8th (4:00pm to 5:00pm)
- Session #58
- Room 217d

KLARITY fx

Amarjit Sahota

- **Forex Specialist with a MSc (Hons) in Business and Economic Forecasting**
- **12 years with HiFX FX Advisory Group, now Klarity FX, a leading provider of foreign currency solutions**
- Advised over 300 clients on FX management solutions

Peter Van Dyke

- **Finance professional with a B.B.A. (Finance) and a Certified Management Accountant**
- **13 yrs with Deeley Harley-Davidson Canada,**
- **Responsible for:**
  - corporate insurance
  - cash flow
  - banking relationships
  - dealership credit
  - dealership wholesale finance suppliers
  - 200 million USD hedging program
  - investment management including a holding in Harley Davidson.

The FX Risk Management Framework

Risk Identification

- What risks do I face?

Risk Measurement

- What does this risk mean to my business?

Risk Management Objectives & Strategy

- What are my objectives?
- How will I achieve them?

Risk Management Process

- How do I ensure my risk management strategy is effectively executed?

Strategy Execution

- When do I trade?
- Which financial instruments will I use?

Benchmarking & Analysis

- Have my risk management objectives been achieved?
- Does my strategy need adjusting?

The FX Risk Management Framework

Deeley Harley-Davidson Canada

- Private corporation
- Exclusive Canadian distributor since early 1970s
- 71 retailers, 80% of them H-D exclusive

Risk Identification → Risk Measurement

Assessing the Exposure

- Exposure: 200kk USD +/- in a normal year
- All product from U.S.A., in USDs.
- USD requirements not nearly as seasonal as the riding season
- Bi-monthly payments
- Pricing done at new model show in July. Dec re-price?

Risk Identification → Risk Measurement

Assessing the Exposure, cont'd

- Forecasting USD requirements
  - History
  - Agreed upon unit and P&A targets
  - Agreed upon intra-year unit flow
- If you don't have this process, use your budget
- Adjusting the motorcycle flow - rare. Marketing efforts preferred.
- Exposure broken down to semi-monthly exposures

Risk Identification → Risk Measurement

Assessing the Exposure, cont’d

- Deeley’s FX model
  - Spreadsheet showing the sensitivity of the FX assumptions

  - Variables:
    - total annual exposure
    - hedged amount
    - remaining exposure
    - assumed spot for remaining exposure
    - Can also split remaining exposure with different spot rates over the split periods
    - Can also include variances from different option uses

- Pricing decision is made at latest possible time

Risk Identification → Risk Measurement

Currency Risk Management Policy

- It is a company's documented set of "laws" regarding the identification of risk profiles and tolerances, its objectives and its strategies for dealing with currency risk

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy

Developing a Risk Management Policy

Policy Objectives – smooth pricing, follow GAAP hedging

Risks to be Managed – fluctuating costs of USD buys

Risk Tolerances – what's the budget rate? How will retail buyers react to price change? Impact on grey marketing?

Risk Measurement – difference from budget; sensitivity analysis

Control Processes – people scope, limits, internal controls

Performance Measurement – compare to benchmark, eg spot

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy

Managing Risk

- Exposure management tools
- "When to execute"
- "Natural offsets" and managing shifts in such

Management tools extended well beyond financial instruments from banks

KLARITY*fx*

TREASURY MANAGEMENT
Operating Standards

600 Risk Management Procedures
Rev 1/14/01

Table 6.4 Risk Management Instruments & Approaches

I. **Purpose**

To establish those exposure adjustment tools generally available in the marketplace which the Board has approved as part of the FX Risk Management Policy as proposed by the SVP & CFO of the Company.

Exposure Management Tools

	Internal	*External*
Shorter Term	❑ Inter-company payment term shifts ❑ Inter-company loans (S/T) ❑ Inter-company forward FX contract ❑ Service fee and royalty payments ❑ Leading / Lagging of 3rd foreign currency payable	❑ Forwards ❑ Options ❑ Swaps ❑ Local / foreign currency financing / investing ❑ Foreign currency accounts ❑ Factoring / leasing / sale & leaseback
Longer Term	❑ Pricing adjustments / cost reductions ❑ Change currency for billing / paying ❑ Change country for sourcing / production ❑ Cash management changes ❑ Inter-company loans (L/T) ❑ Equity contributions ❑ Dividends	❑ "Long Date" Forwards ❑ Swaptions ❑ Parallel / back-to-back loans ❑ Long term financing / investing

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy

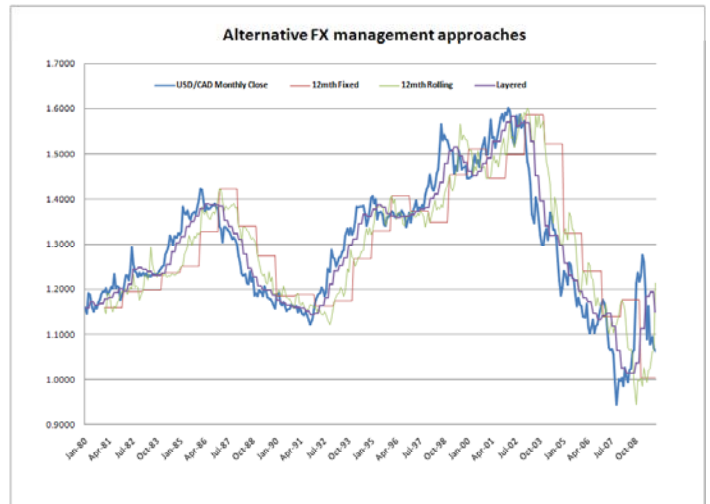
Program Development

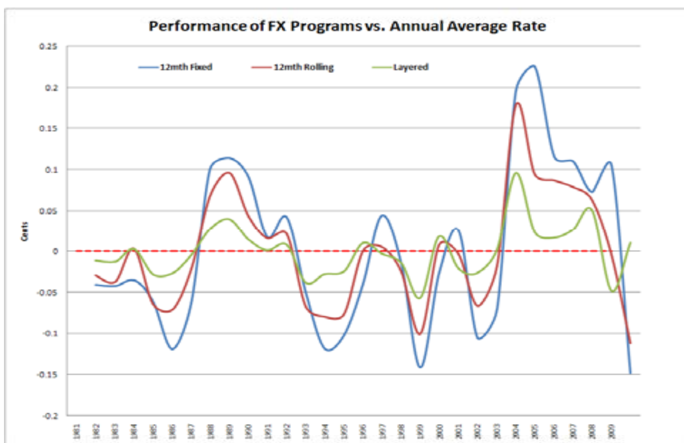
Risk Identification → Risk Measurement → Risk Management Objectives & Strategy

Serious consideration needs to be given to the design and implementation of a FX program.

Common approaches may include:

1. Fixed period
2. Rolling per period
3. Rolling layered





While each approach has its benefits, it must be consistent with the underlying objectives of the FX risk management approach. Through careful analysis and testing we assist in appropriate program selection and implementation.

Managing the Exposure

- Purpose of Cash Flow hedging: to smooth pricing

- Hedging strategies – depends on:
  - Trend
  - Budget
  - Market forces

- Who makes decisions?
  - Committee → primarily for longer term
  - Me → primarily for shorter term

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy

Managing the Exposure, cont’d

- Everyone in the company understands the importance of FX
- Strong relationship with our direct customers (retailers)
  → FX and pricing is an important issue for them.
- Treasury is a partner to Sales and Marketing

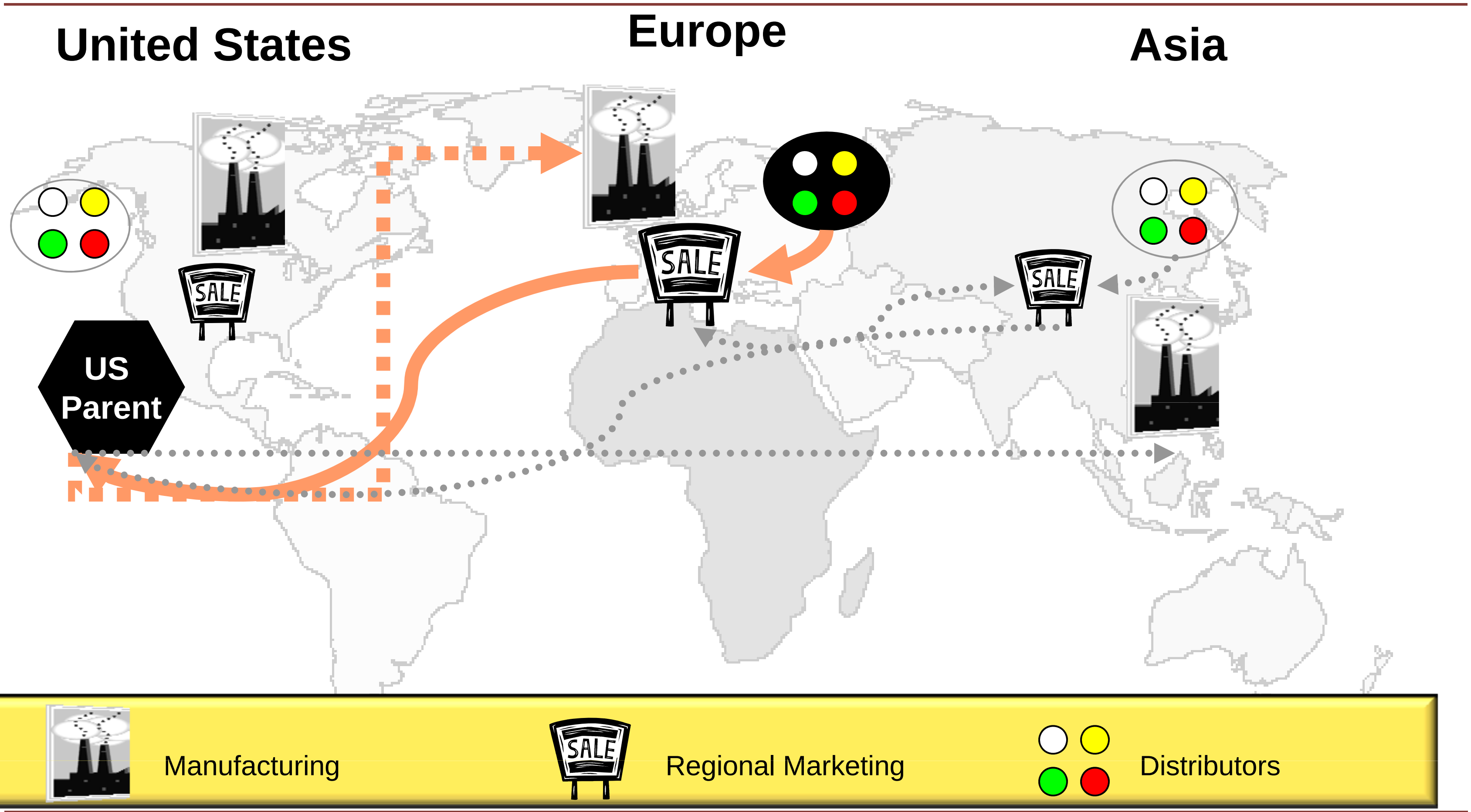
Risk Identification → Risk Measurement → Risk Management Objectives & Strategy

Illustration: Setting the scene

- US Exporter
  - Functional US Dollar
- Global manufacturing plants
- Multiple marketing and distribution centers
  - Distributor Sales in regional currency
- Centralized FX management

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy → Risk Management Process → Strategy Execution

Illustration: Setting the scene



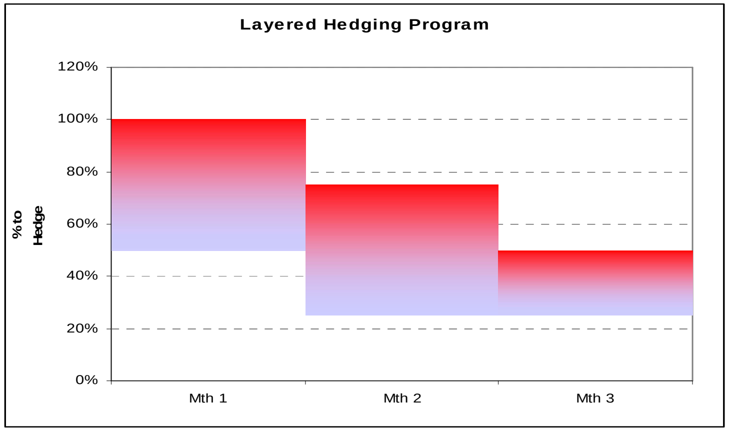
Approach to Hedging Cash Flow Exposure

- Policy objective
  - Co. X establishes a quarterly budget and sets the price list for the distributors accordingly.
  - Protect the profit margin built into the budget within an agreed variance.
  - Flexibility to improve pricing and compete with local manufacturers in its foreign territories.

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy → Risk Management Process → Strategy Execution

Approach to Hedging Cash Flow Exposure

- FX Program
  - 3month layered hedging program
  - 33% min, 75% max
  - Allow for cash flow forecasting error, feedback loop into the min/max
  - FX Instruments include spot, forward, vanilla derivatives



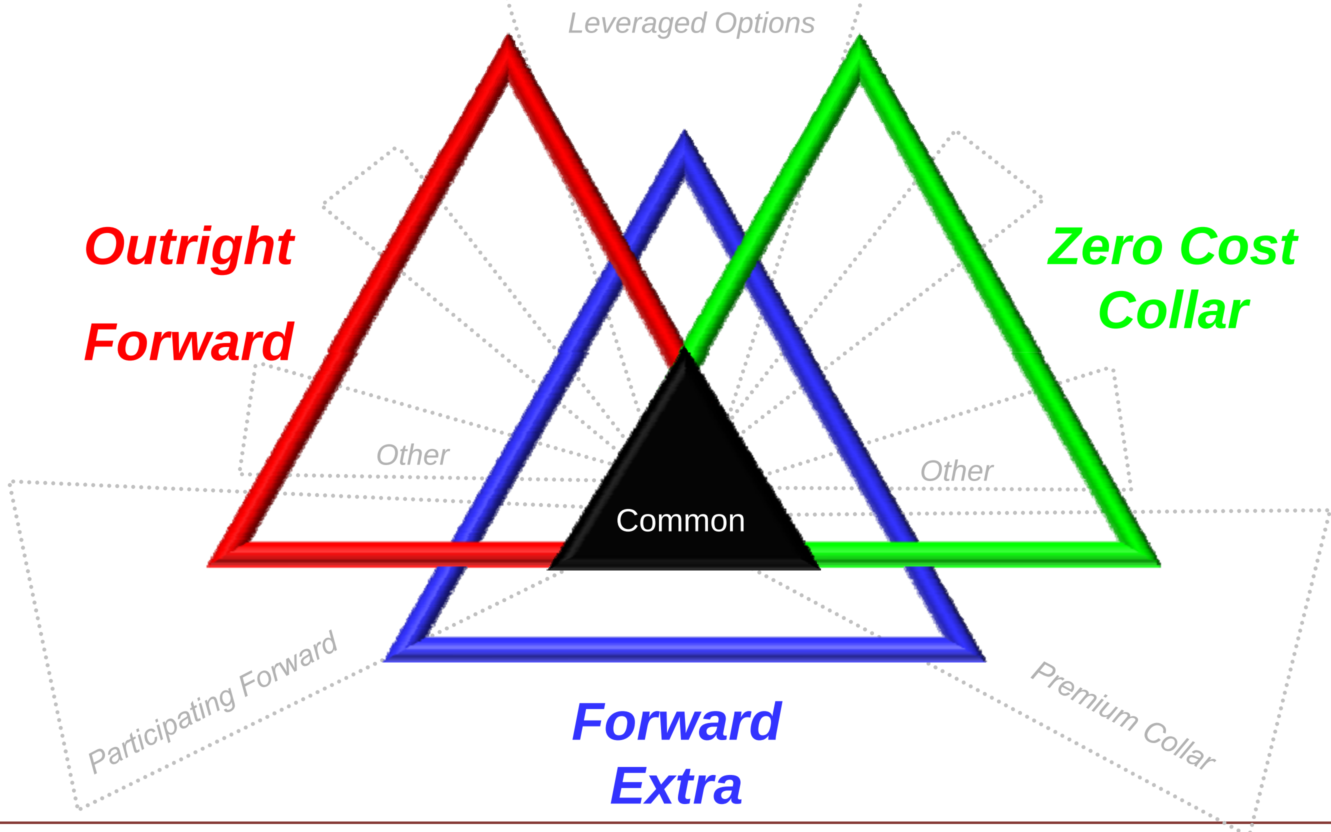
Risk Identification → Risk Measurement → Risk Management Objectives & Strategy → Risk Management Process → Strategy Execution

Dilemma

- Protect the Budget rate but allow flexibility to participate in improved FX moves if significant to meet board objectives
- Little or no budget allocated for cost of hedge implementation
- Forward contracts provide certainty but no flexibility
- Leaving it to Spot on receivables is ‘alright’ if the market stays close to budget or moves in our favor, but very nervous when it moves against us.
- Place head in the sand and hope it will be fine

Hedge Strategy

- Examining some alternative "hedging" approaches



Comparative framework

- “payoff chart” provides an effective way to compare alternatives

Payoff Chart

Notional	**5,000,000**
Spot Rate	1.5650
Forward Pts	
Forward Rate	
Risk Reversal	
Forward Extra	

Spot	Forward	Zero Cost Collar	Forward Extra
1.4950			
1.5000			
1.5050			
1.5100			
1.5150			
1.5200			
1.5250			
1.5300			
1.5350			
1.5400			
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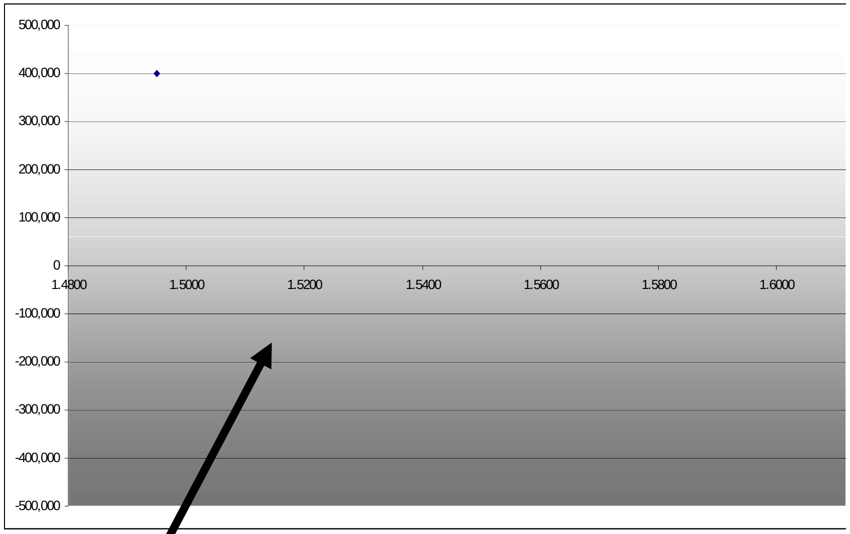


To be completed after discussion of hedging instruments

Protection using a Zero Cost Collar

- Consists of **buying** a vanilla call (put) and **selling** a vanilla put (call)

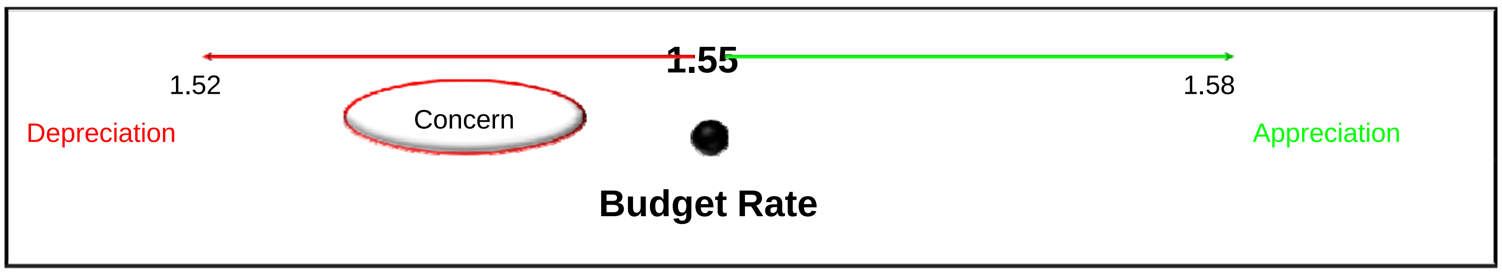
- Your concern: Actions taken:

SPOT RATE ...		
Appreciates	buy a Vanilla **CALL**	sell a Vanilla **PUT**
Depreciates	buy a Vanilla **PUT**	sell a Vanilla **CALL**

- Low-risk hedging strategy that combines the protection of a forward contract with the flexibility of a option. Although the strike is lower than an outright forward contract.

Protection using a Zero Cost Collar

- **Illustration**
  - US Exporter Co.X has EUR receivables in 3mths with a budget rate of 1.55. The exporter is worried about EUR/USD depreciation.



SPOT RATE …

BELIEF:

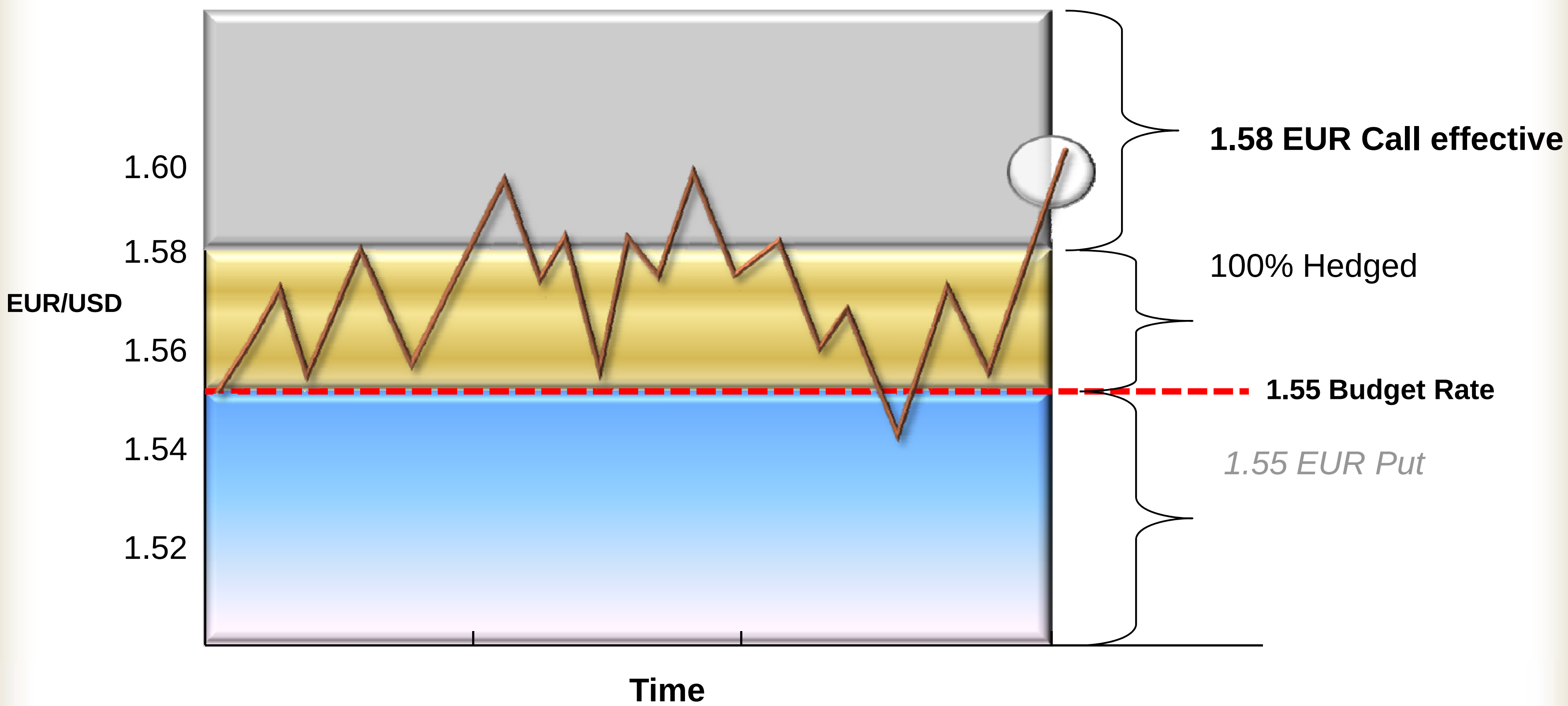
EURUSD appreciates toward 1.58

ACTION:

Buy a 1.55 EUR put and sell a 1.58 EUR call for a zero cost strategy.

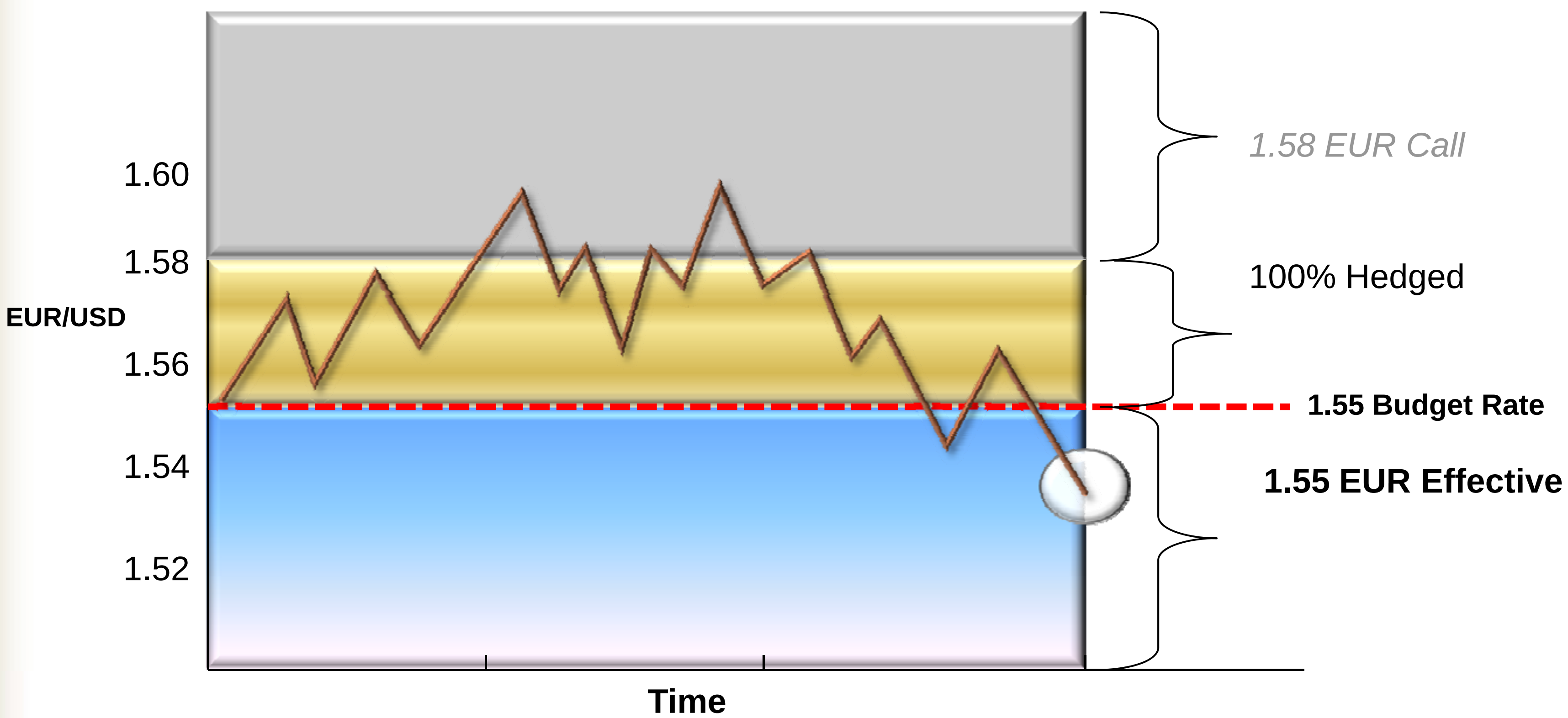
Protection using a Zero Cost Collar

EUR/USD expires above 1.5800, Exporter trades at 1.5800 Strike



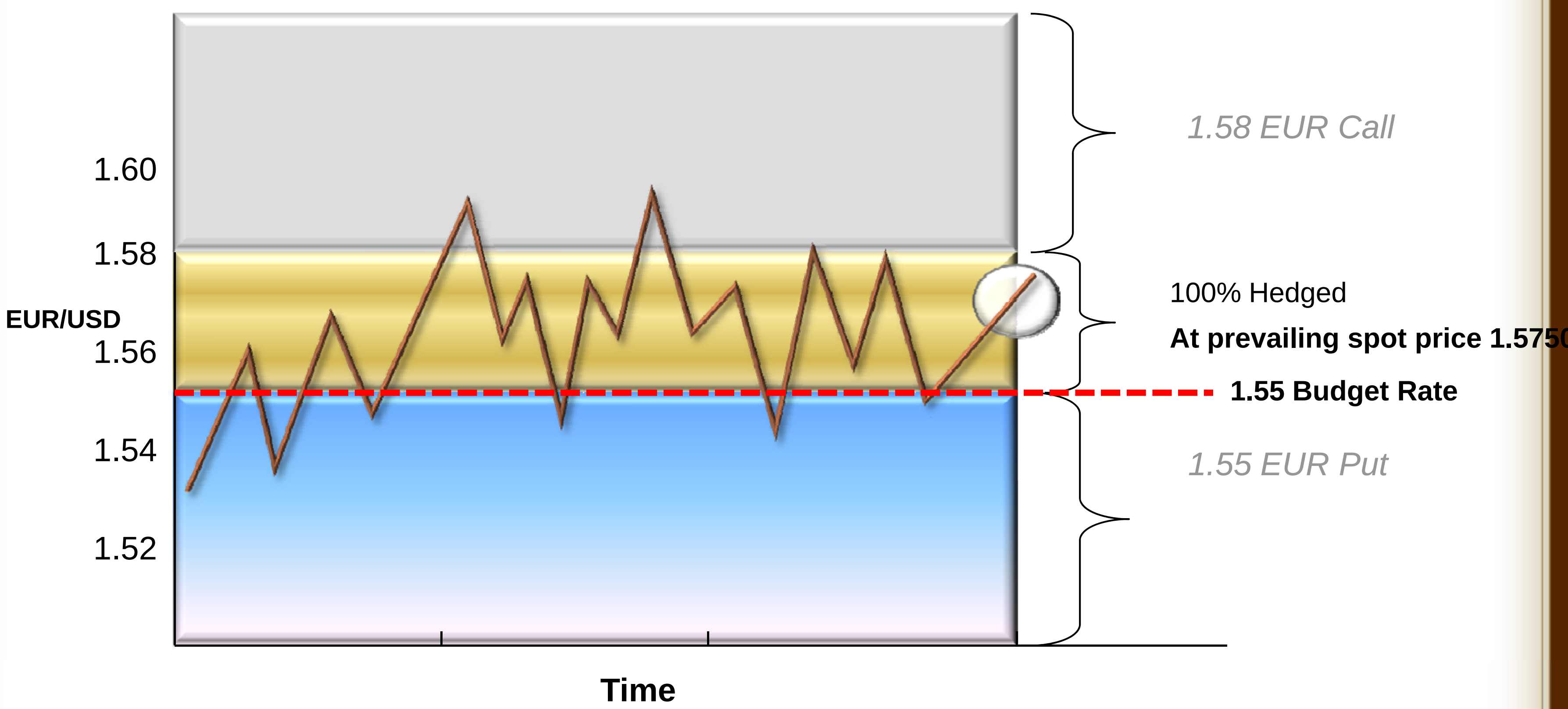
Protection using a Zero Cost Collar

EUR/USD breaks 1.5500 on expiry, Exporter trades at 1.5500 Strike



Protection using a Zero Cost Collar

EUR/USD trades between 1.55-1.58 at expiry, exporter trades at spot

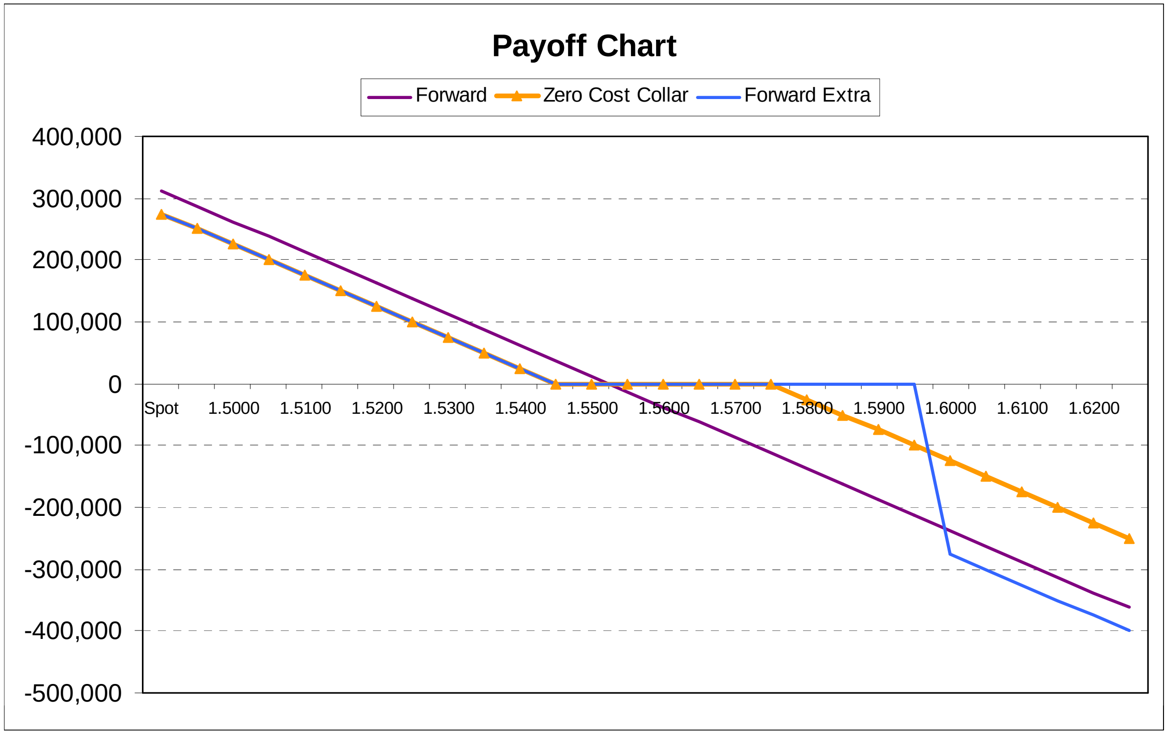


Protection using a Zero Cost Collar

- **Why buy a zero cost collar?**
  - Although selling a call limits the upside potential, for many companies it is more important to be hedged at minimal cost or zero cost.
  - Attempt to out perform a vanilla forward contract
  - Assured worst case scenario

Comparative framework

- Each approach offers advantages and disadvantages depending on the goals and expectations of Export Co's finance executives



Performance evaluation

- Revisit your FX Policy objectives for guidance
- Should not just be about the accounting outcome
- Protecting the business from adverse swings is often not the only objective
- Provide known outcomes within acceptable tolerance
- Feedback loop to improve policy and meet changing dynamics
- Regular reviews and snapshot reporting
- Economic impact on the business

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy → Risk Management Process → Strategy Execution → Benchmarking & Analysis

Performance evaluation

A (Customer) Market Based Approach

- Customer awareness from technology – H-D web site, currency quotes on web
- CAD News = pricing awareness
- 49th parallel – huge risk of grey marketing

Retail customer contact – take the calls, explain to them:

- rolling hedges – customer remembers only the best spot rate
- costs money to bring it here
- we're a middle man – can't sell it for U.S. price

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy → Risk Management Process → Strategy Execution → Benchmarking & Analysis

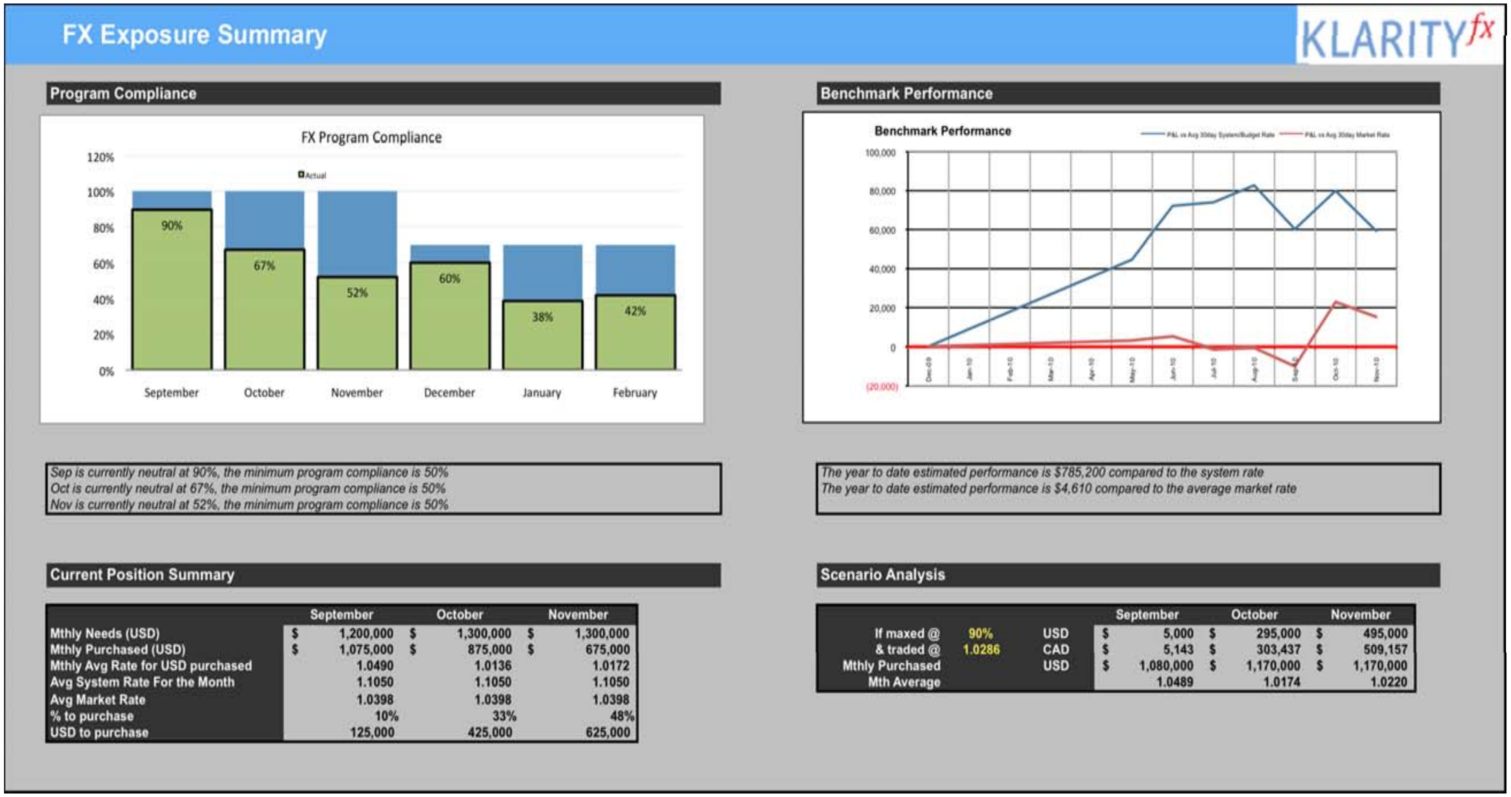
Performance evaluation

Retailer customer contact - educate them:

- consult Retailer Advisory Council
- send notices to all retailers when there's a big CAD move
- stress to retailers to tell <u>their</u> customers that price is based on deliver date price
- explain pricing strategies – eg, special rebate programs, sensitivities from landed price. Retailers need to relay message to customers.

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy → Risk Management Process → Strategy Execution → Benchmarking & Analysis

Performance evaluation



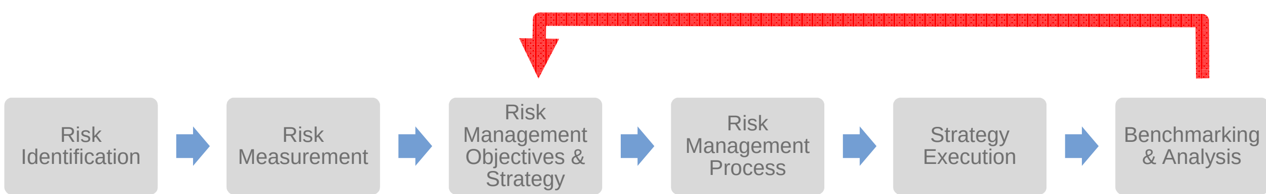
	September		October		November
Mthly Needs (USD)	$	1,200,000	$	1,300,000	$ 1,300,000
Mthly Purchased (USD)	$	1,075,000	$	875,000	$ 675,000
Mthly Avg Rate for USD purchased		1.0490		1.0136	1.0172
Avg System Rate For the Month		1.1050		1.1050	1.1050
Avg Market Rate		1.0398		1.0398	1.0398
% to purchase		10%		33%	48%
USD to purchase		125,000		425,000	625,000

			September	October	November
If maxed @	90%	USD	$ 5,000	$ 295,000	$ 495,000
& traded @	1.0286	CAD	$ 5,143	$ 303,437	$ 509,157
Mthly Purchased		USD	$ 1,080,000	$ 1,170,000	$ 1,170,000
Mth Average			1.0489	1.0174	1.0220

Risk Identification → Risk Measurement → Risk Management Objectives & Strategy → Risk Management Process → Strategy Execution → Benchmarking & Analysis

Summary

- ✓ Assessing exposures & risk quantification -
- ✓ Policy & FX program development
- ✓ Decision and financial instrument selection
- ✓ Performance & evaluation



The End

Contact: **Amarjit Sahota**

E-mail: ***asahota@klarityfx.com***

Phone: **(415) 678-2808**