

Silicon Valley Bank >

A Member of SVB Financial Group

# MANAGING FOREIGN EXCHANGE RISK

May 6, 2010

# Today's Speakers

- Ed Sauve, Senior Advisor, Global Products, Silicon Valley Bank (moderator)
- Joe O'Leary, Senior Foreign Exchange Trader, Silicon Valley Bank
- Laurence Hayward, Senior Advisor, Global Products, Silicon Valley Bank

# Topics for Today

- Factors Influencing Your Decisions
- Perceptions and Reality
- Best Practices
- Tutorial on Options
- Q&A

# Accelerating Pace of Global Expansion

- Increase Sales
- Suppliers
- Low Cost Manufacturing
- Logistics/Outsourcing
- Expansion
- Capital

# Global Expansion – Issues & Risk Factors

- Financial Risk
- Operating Risk
- Compliance
- Tax
- Regulatory Risk
- Credit Risk

Foreign exchange - foreign currency aspect unavoidable

# Foreign Exchange and the Enterprise

- **Treasury Operations**

- Pay overseas vendors and/or employees
- Invest capital and fund foreign operations
- Channel sales proceeds (A/R) denominated in foreign currencies
- Receive dividends, funded debt and return capital denominated in foreign currency
- Reliable and timely execution is critical

- **Risk Management**

- Timing
- FX risk = Potential gain or loss resulting from movements in currency exchange rate vs. base currency
- Transaction, translation and economic/operating Risk

# Hedging Strategies

Joe O'Leary

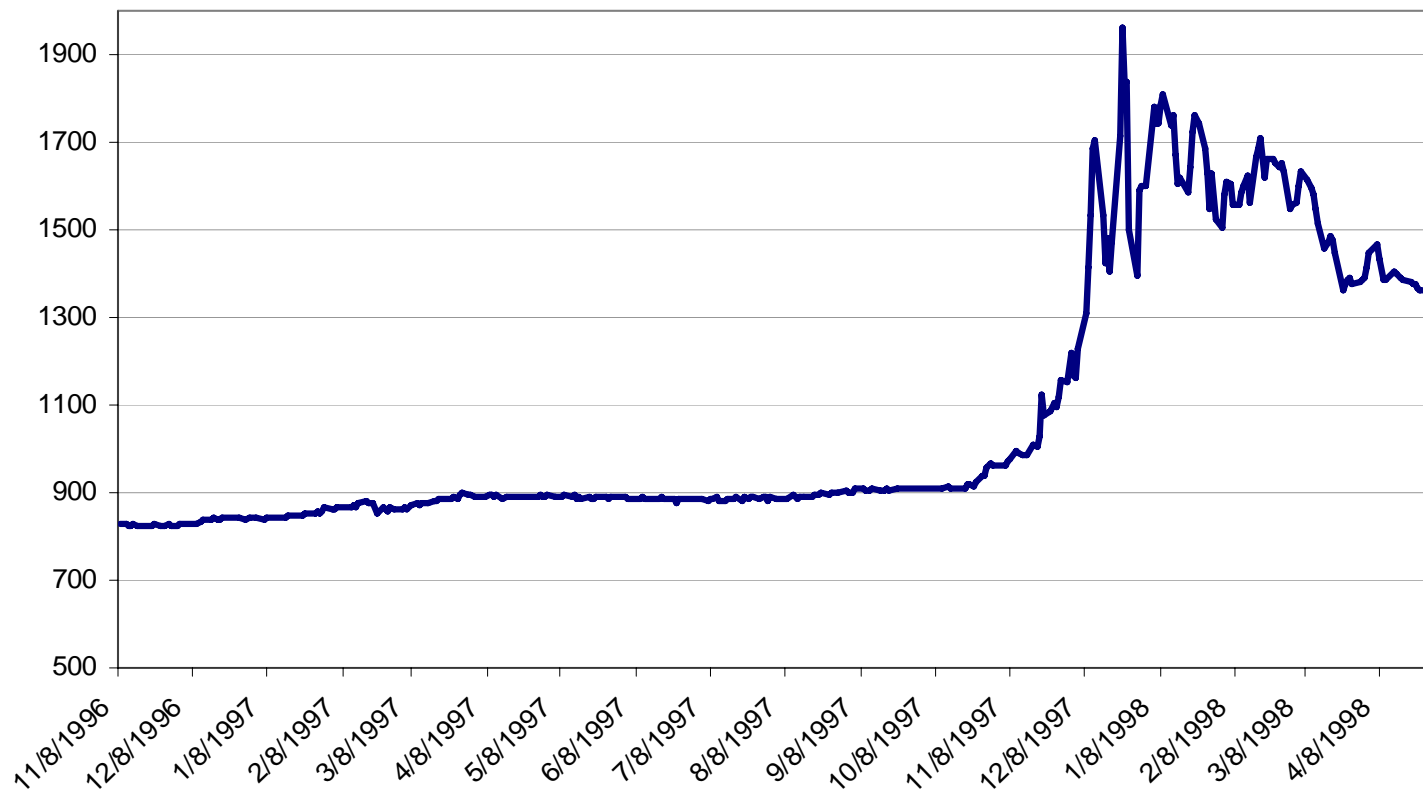
Senior Foreign Exchange Trader,  
Silicon Valley Bank

# Definition of Foreign Exchange Hedging

- “We use financial instruments to **mitigate** exposure”
- “Entails giving up some opportunity / gains to **reduce** risk”
- “Protects my revenue by **offsetting** losses / gains of my foreign denominated sales transactions”
- “Foreign exchange hedging is a financial strategy used to **protect** my business against volatility in world currency markets.”

# Nothing Predictable about Currency: Once-in-a-lifetime event.....1996-1998

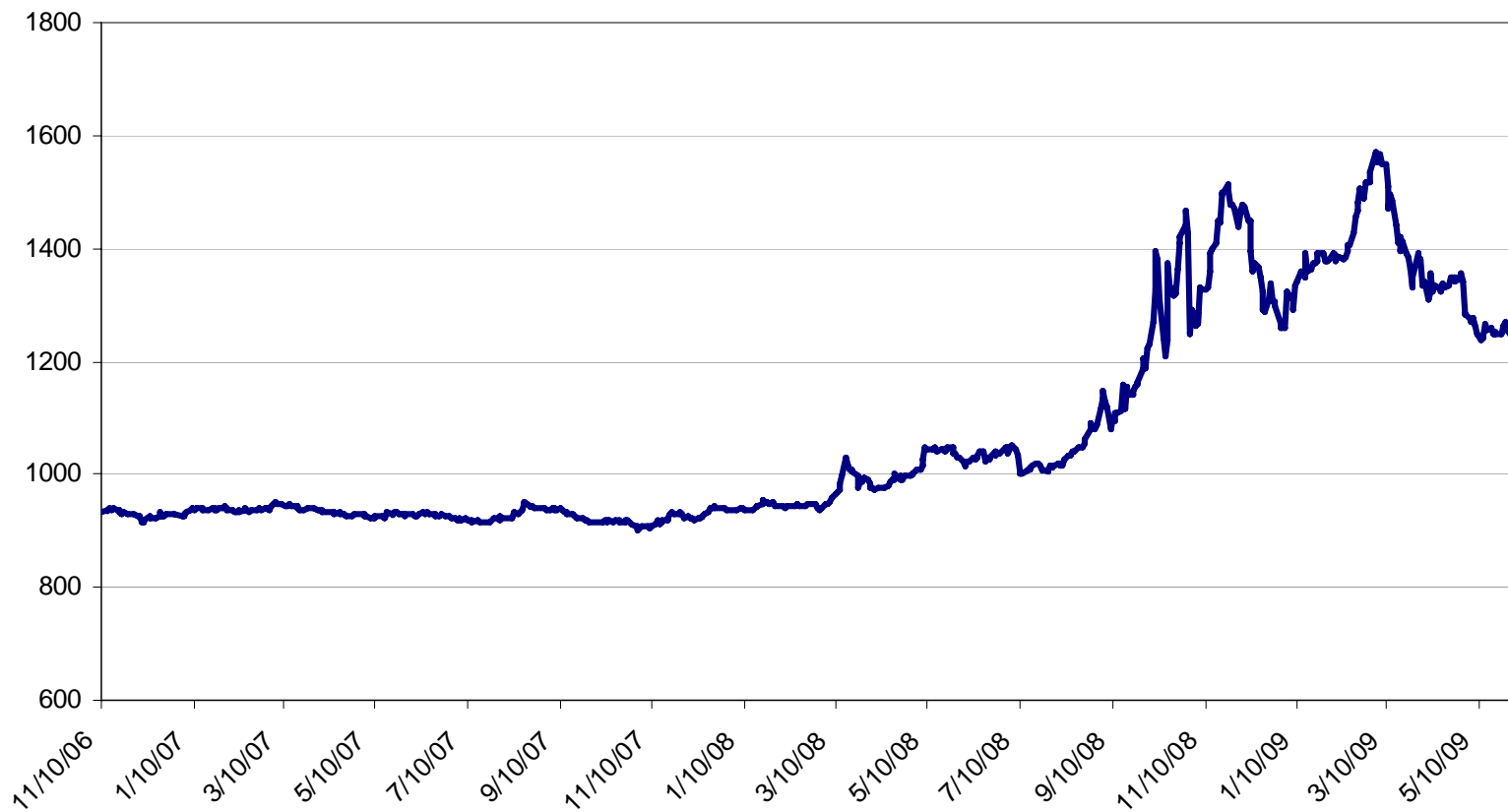
## Value of KRW versus USD



Source: Bloomberg, SVB Financial Group

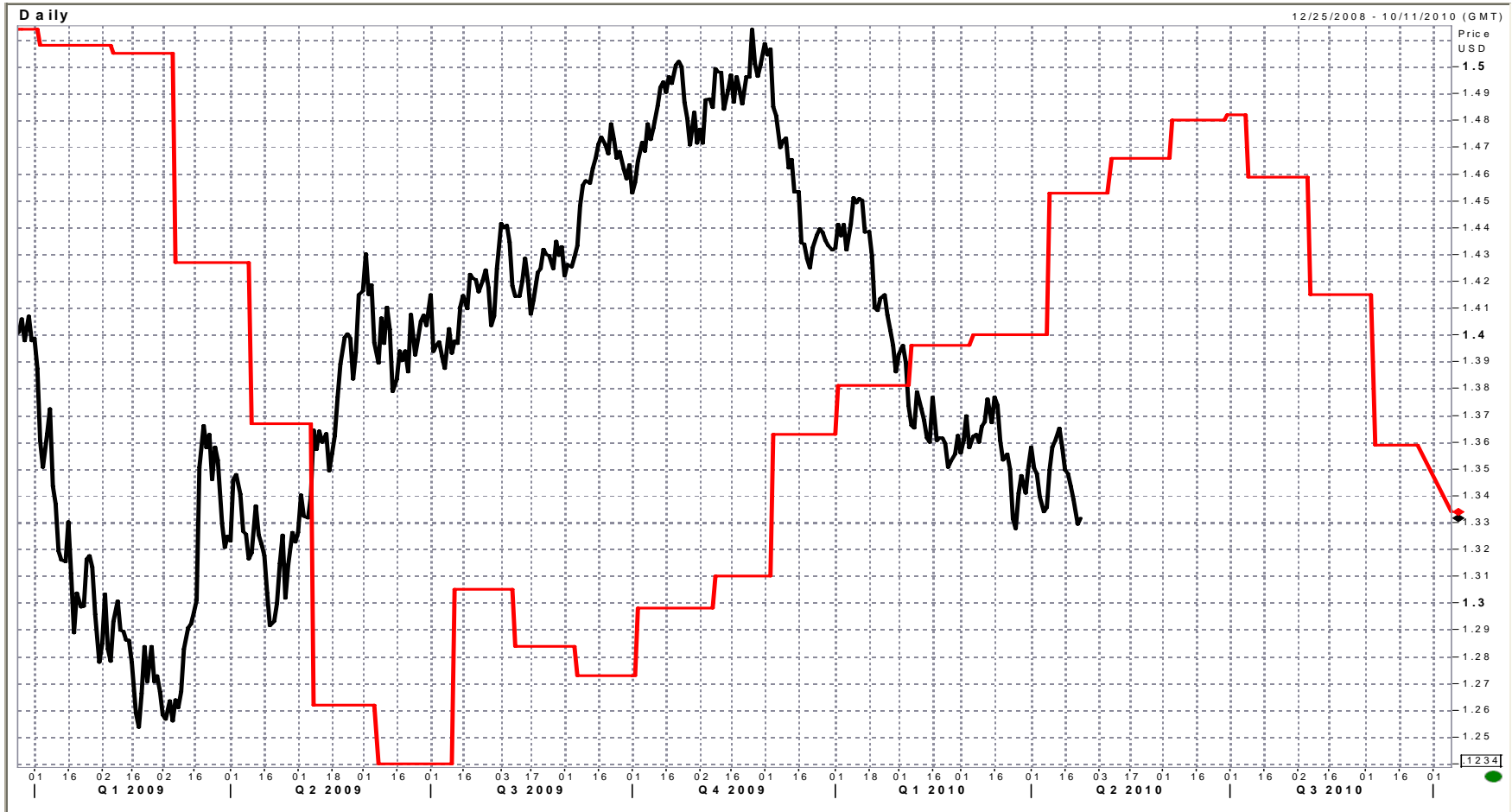
# 2007-2009

## Value of KRW versus USD



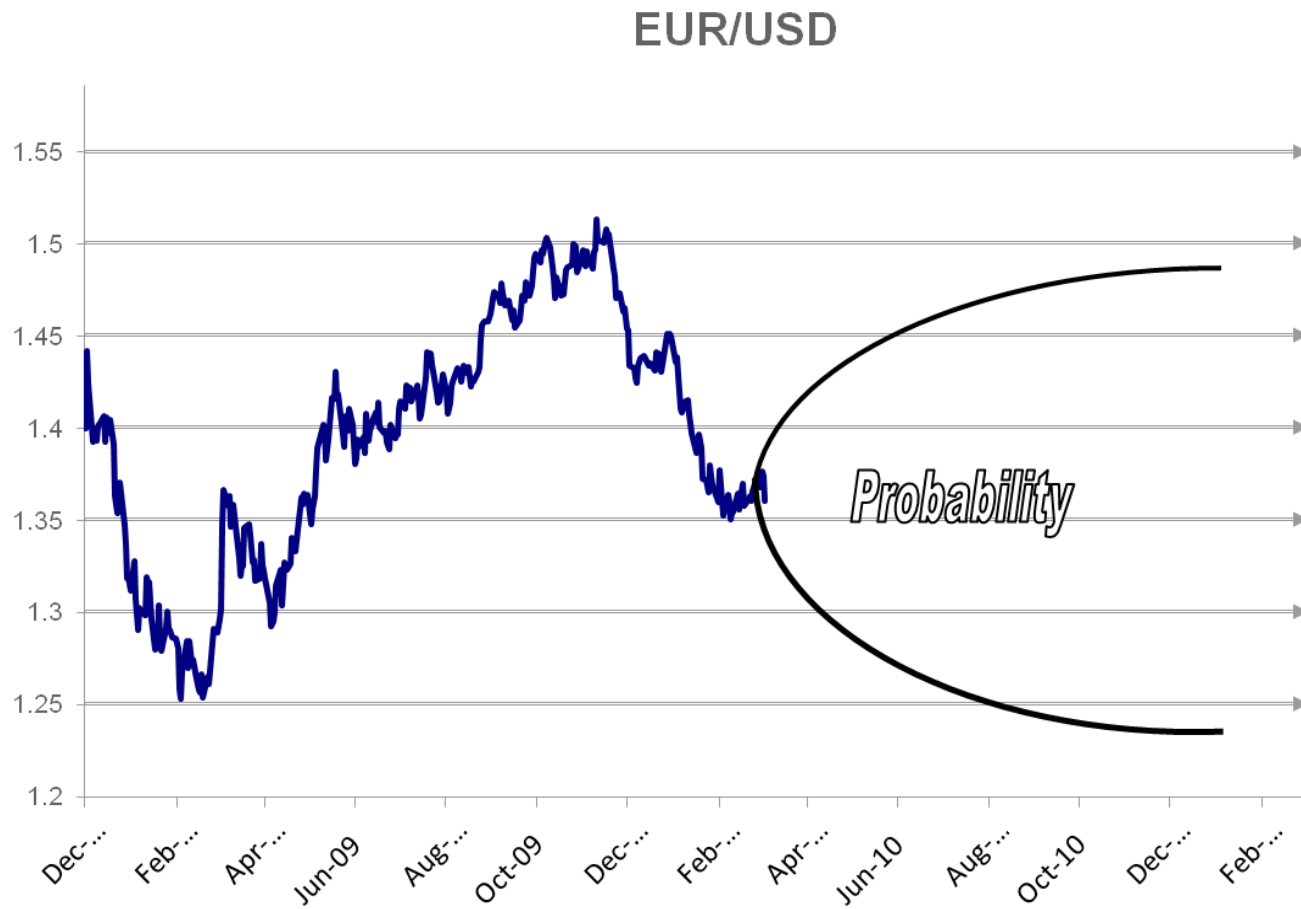
Source: Bloomberg, SVB Financial Group

# Forecasts vs. Reality



Source: Bloomberg

# Risk Curve Analysis – Standard Deviation



Source: Bloomberg, SVB Financial Group

# Subject to FX Losses

**COMPANY** Nintendo Ltd. – Develops, manufactures, and sells video game hardware and software

**SITUATION** Cut its profit forecast for the year to March by a much larger-than-expected 16 percent .

**REASON** 1. “The Wii is selling extremely well in Europe and the United States. But its Japan sales are falling short of our expectations,” Nintendo President Satoru Iwata. 2. Nintendo's outlook has been tempered by a rising yen, which makes its consoles less competitive and cuts into the value of overseas earnings. It booked a foreign exchange-related loss of \$1.83 Bio in the nine months to December as a firmer yen decreased the value of Nintendo's foreign currency-denominated assets.

Source: Reuters

# Japanese Yen Moves Stronger



Source: Bloomberg, SVB Financial Group

# Successful Hedging Scenario

**COMPANY** Manufacturer of cleantech equipment

**SITUATION** The manufacturer signed a contract with a German supplier; payable over 12 months

**SOLUTION** Developed an FX policy, which called for the company to hedge most known foreign exchange exposures

**EXECUTION** The company entered into a series of forward contracts that extended out one year and matched its scheduled A/P payments

**RESULT** The company eliminated the FX risk of its euro-denominated cash flow by fixing a U.S. dollar cost.



# Common Misconceptions

# Misconception: Hedging is a Form of Speculation

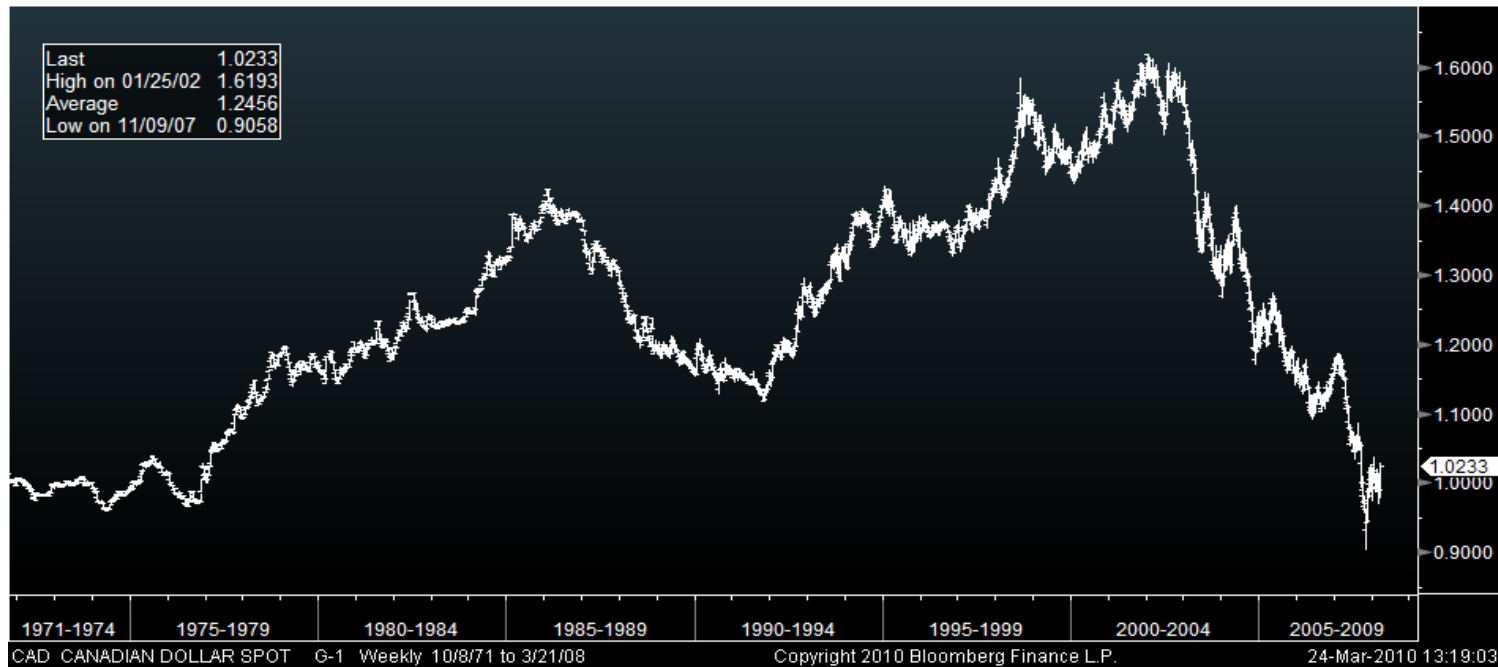
## Reality

- Not hedging is actually a form of speculation
- Hedging is another Risk Management Strategy
- Look at competition
- Over-hedging could be speculating

# Misconception: Foreign Exchange Movements Even Out Over Time

## Reality

- What is your time horizon?



Source: Bloomberg

# Misconception: A Company is Immune to Foreign Currency Dynamics

## Reality

- Pricing and reporting in USD does not mitigate currency risk
- Company size does not matter
- Both private and public companies can benefit from FX hedging



# Getting Started

# When to Consider FX Hedging

- Selling overseas
- Buying from overseas suppliers
- Setting up manufacturing facilities overseas
- Outsourcing R&D or customer support
- Overseas acquisitions
- Balance sheet conversions
- Competing with overseas competitors

# Getting Started

**ANALYSIS**

**DEVELOP FX POLICY**

**CHOOSE STRATEGY  
and EXECUTE**

**MONITOR EVENTS  
AND RESULTS**

# Analysis



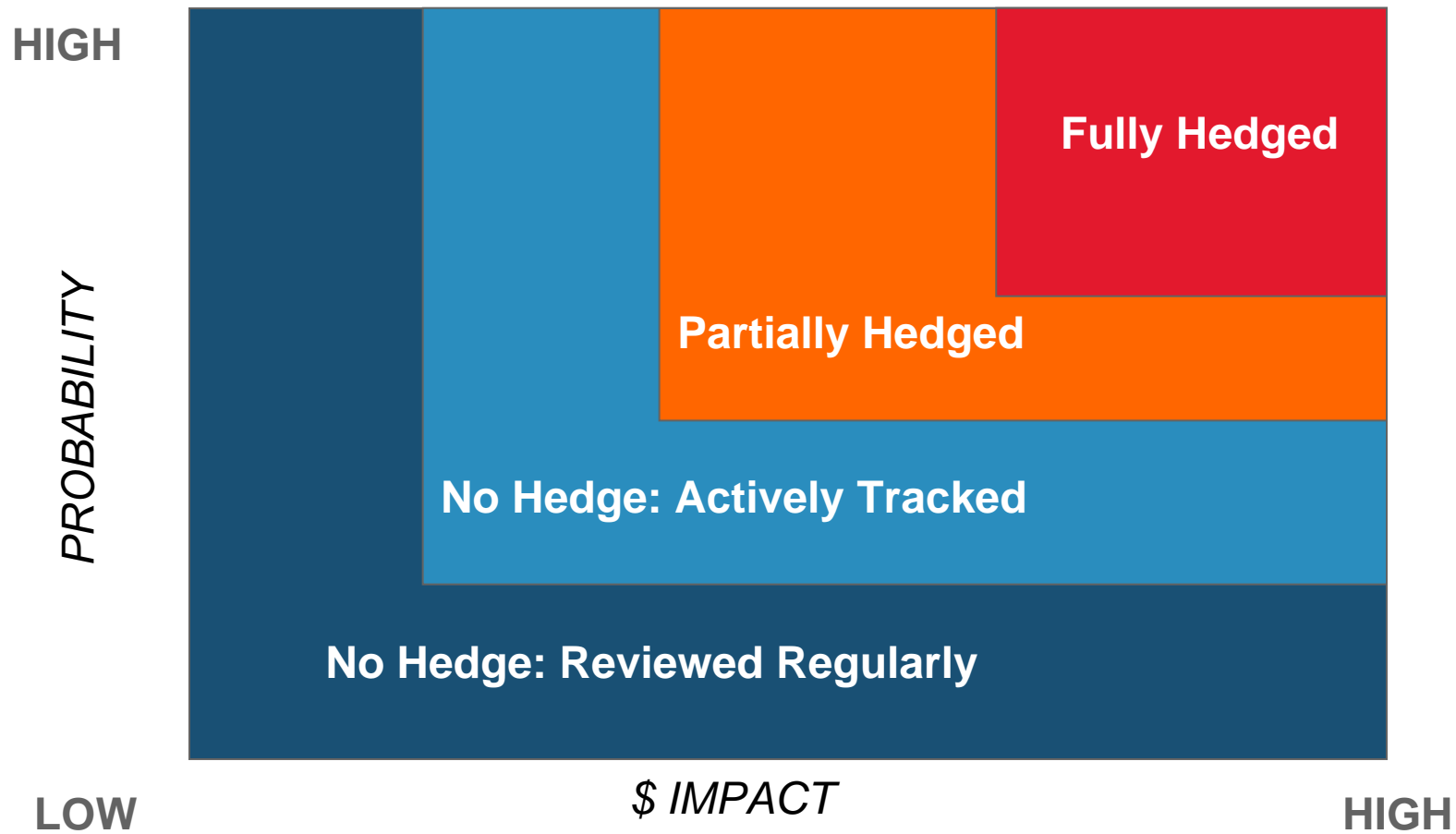
## Data collection to identify global exposure

- Forecasted sales, purchases, profits, dividends
- Firm commitments: sales or purchases not yet booked
- Transactions booked: A/R, A/P
- Inter-company transactions / transfers
- Short and long-term investments

## Exposure Analysis

- Quantify exposure to determine financial impact
- Compare quantified risk with cost of hedging

# Strategic Approach to Risk

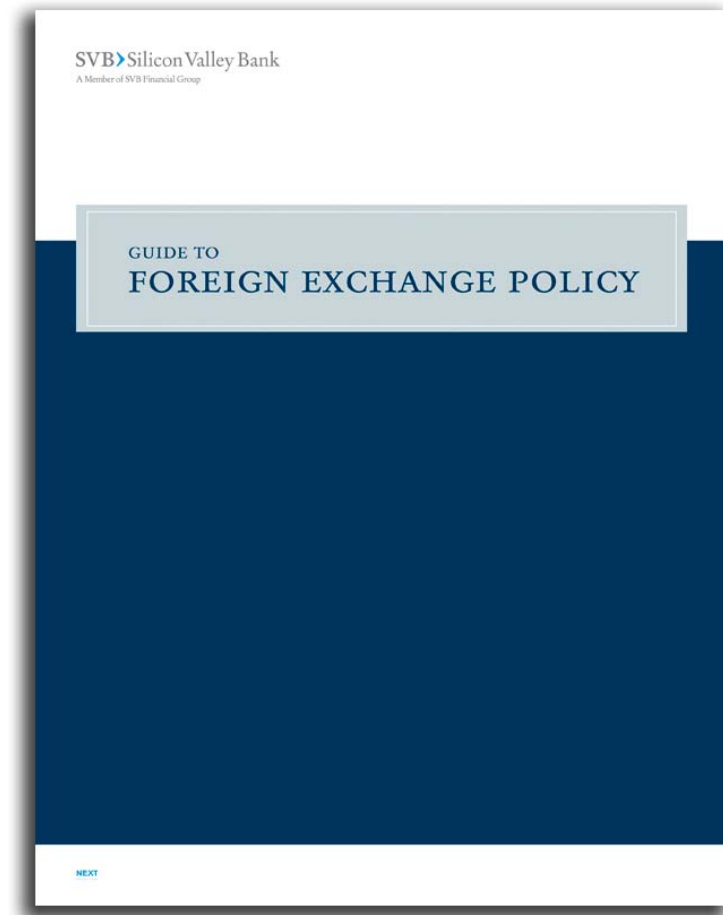


# Develop a Foreign Exchange Policy



## FX Policy

- A framework approved by the Board that incorporates all aspects of FX risk management
  - Reflect corporate goals and objectives
  - **Buy-in from management**
  - Ensure commitment of resources
  - Consistency in FX activities
  - Accounting issues

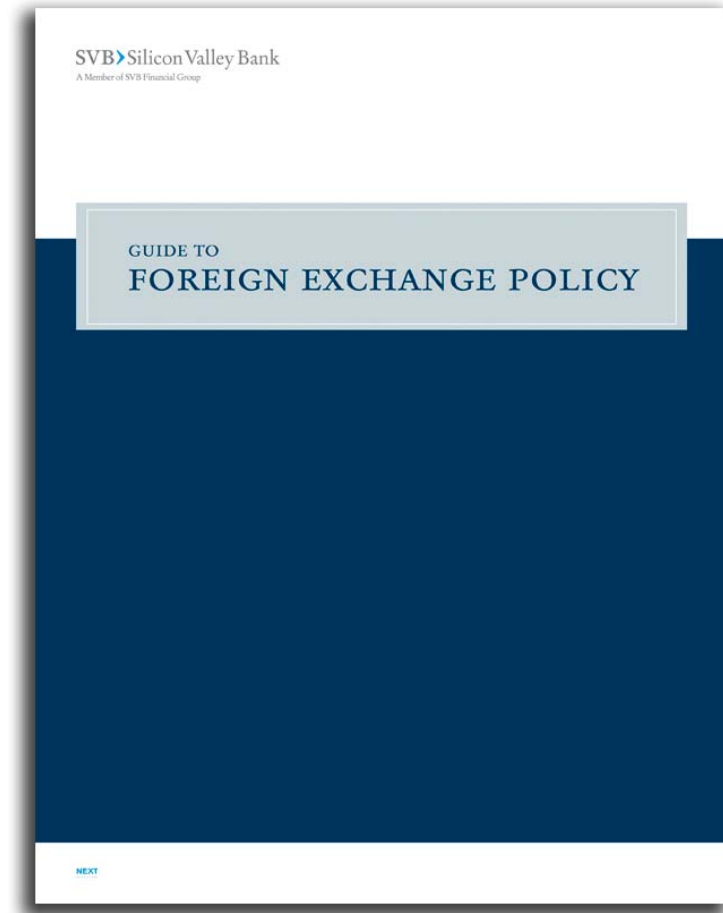


# Develop an Foreign Exchange Policy – cont.



## Policy Components

- Objectives
- Risk Tolerance-Passive? Active?
- Hedging Strategies
- Accountability / Oversight



# Choosing the Right Strategy and Executing



## Common Hedging Instruments

- Natural offset- currency accounts
- Forward contracts
- Over-the-counter options
- Structured option strategies
  - Participating forward, collar (range forward), etc.
- Foreign currency loans

**Work with your accounting and senior management to ensure your selected instruments are appropriate for your company. Are they in your FX policy?**

# Monitor Events and Results



- Ensure exposures are being hedged as planned
- Develop regular reports to evaluate success of hedges in meeting goals
  - Mark-To-Market Report
  - Exposure Report
- Be alert to events or FX rate changes that may affect your business
- Identify / learn new hedging tools

# Common Hedging Practices

## Association of Corporate Treasurers

- 93% centralized hedge management
- 77% hedge cash forecasts
- 78% Net FX assets and liabilities
- 79% hedge to minimize risk (transaction and earnings)

# Tutorial on Options

Laurence Hayward

Senior Advisor, Global Products

Silicon Valley Bank

# Using Options to Hedge Foreign Exchange

- **Purchased Option:** gives the buyer the right but not the obligation to fulfill the option at maturity
- **Premium:** the market value paid by the buyer to the seller.
- **Notional Amount:** currency amount of the option
- **Expiry Date:** last day of the options life.
- **Delivery Date:** second working day after the option expires
- **Strike Price:** rate at which the option is valued.
- **ITM:** In the money; in a profitable position
- **ATM:** At The Money; uses spot as the strike price
- **OTM:** Out of the Money; in a loss position
- **ATMF:** At the Money Forward; uses the forward price as the strike price

# A Call Option

- When a call option is purchased, you buy the right to buy the currency
- Strike price and expiry date are agreed upon and the premium paid
- Paying the premium gives the buyer optionality (the right but not the obligation to exercise the contract at maturity)

## **Example: Buy a euro call at a strike of 1.3500**

- At maturity if the euro is at 1.3800 the option owner gets to buy the euros at 1.3500
- At maturity if the euro is at 1.3200 the option owner gets to buy euros at 1.32 and let the option mature worthless

# A Put Option

- When a put option is purchased you have bought the right to sell the currency
- The strike price and the expiry date are agreed upon and the premium paid
- Paying the premium gives the buyer optionality, which is the right but not the obligation to exercise the contract at maturity

## **Example: Buy a euro put struck at 1.3500**

- At maturity if the euro is at 1.3800 the option owner gets to sell it at 1.3800 and let the option mature worthless
- At maturity if the euro is at 1.3200 the option owner gets to sell it at 1.3500

# Structured (Complex) Options

- Structured options are different from the previous examples because they do not have optionality
- The reason is one option is bought (premium owed) and the other option is sold and the (premium collected) to offset the cost of the bought option
- Because two options make up the structure, the structure becomes an obligation the same way a forward is an obligation
- Either the premium is paid and the buyer has the optionality
- or if a structured option meets your needs, you give up the optionality, the trade off for not having to pay the premium
- Options are a zero-sum game

# A Collar, Range Forward, Risk Reversal or Zero Cost Option

- One option/four names, Collar and Range Forward are better descriptively
- With a Collar the first option that makes up the pair (structure) is the same action as you would take if you bought a purchased option
- If you need to buy a currency, you would buy a Euro Call and pay for the premium by selling a Euro Put
- If you need to sell a currency, you would buy a Euro Put and pay for the premium by selling a Euro Call

# A Collar, Range Forward, Risk Reversal or Zero Cost Option Example

## Example: 3-month euro struck ATMF 1.3330 creates a zero cost collar of 1.3000 to 1.3630

- If at maturity the euro is within the Collar the owner would go into the market and buy the euros at the market rate.
- If the euro is at 1.28 the owner would buy the euros at 1.3000
- If the euro is at 1.38 they would buy the euros at 1.3630
- Note the owner has a choice if at maturity the market is within the range (they can decide to buy or not) but they have no control on where it is in that range at maturity and might make a profit buying, if it is between 1.3000 and 1.3300.
- But they might have to buy it between 1.3330 and 1.3600 in which case they will make a loss

**When to use:** if the buyer is willing to take a small loss on the chance of making a small profit.

**Typical user:** has a strong view that the currency is going to weaken in their favor

# A Participating Forward Option

- With a Participating Forward the first option that makes up the pair (structure) is the same as if you bought a purchased option
- If you decide you want to participate in 50% of any upside move
- If you need to buy euros, you would buy a euro call in the whole amount say EUR1,000,000 and sell a euro put in EUR 500,000
- The rate for this transaction is the same for the call and the put and is 1.3530 with the spot price at 1.3330
- Buying the call option in EUR 1,000,000 at the OTM rate, is offset by selling the put option in EUR 500,000 at the same price, creating the 50% participation

# A Participating Forward Option Example

## Example: 3-month euro struck ATMF 1.3330 creates a Participating Forward Rate of 1.3530 for zero cost

- At maturity if the euro is at 1.3000 the owner lets the EUR call expire and buys EUR 500,000 in the market at 1.3000
- The Euro put option in EUR 500,000 will be exercised at 1.3530 so the owner buys EUR 500,000 at 1.3530 which together with the EUR 500,000 purchased at 1.3000 gives him an average price of 1.3265

**When to use:** if you are willing to take a small loss on the chance you make a larger profit.

**Typical user:** has a strong view that the currency is going to weaken in their favor



# Questions

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