

Corporate Uses and Abuses of Currency Options

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Forwards vs Futures vs Options

- Good credit: Forward usually best
- Sometimes, Money Market Hedge better
 - ◆ Perfect market: same (covered int. arb.)
 - ◆ Imperfect market: MMH may be better
- Credit problem: Futures
 - ◆ But: limited and standardized
 - ◆ Requires margin and daily settlement
- Uncertain future cash flows:
 - ◆ Liquid instrument (futures/forwards to assure flexibility)
 - ◆ Options sometimes advisable

Using Currency Options

Known cash flows + option hedge =
naked option

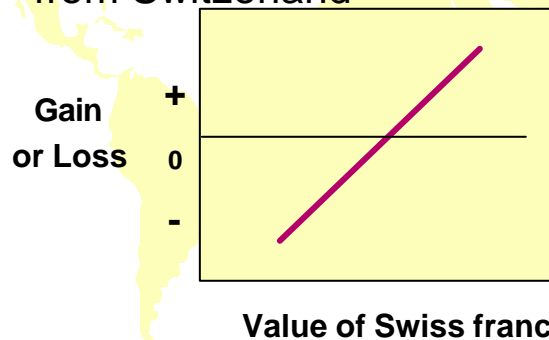
- ◆ Hedging a known position
- ◆ Covered call writing
- ◆ Hedging with “cheap options”
- ◆ Hedging with “free options”
- ◆ Hedging contingent risk
- ◆ Options receive favorable accounting treatment

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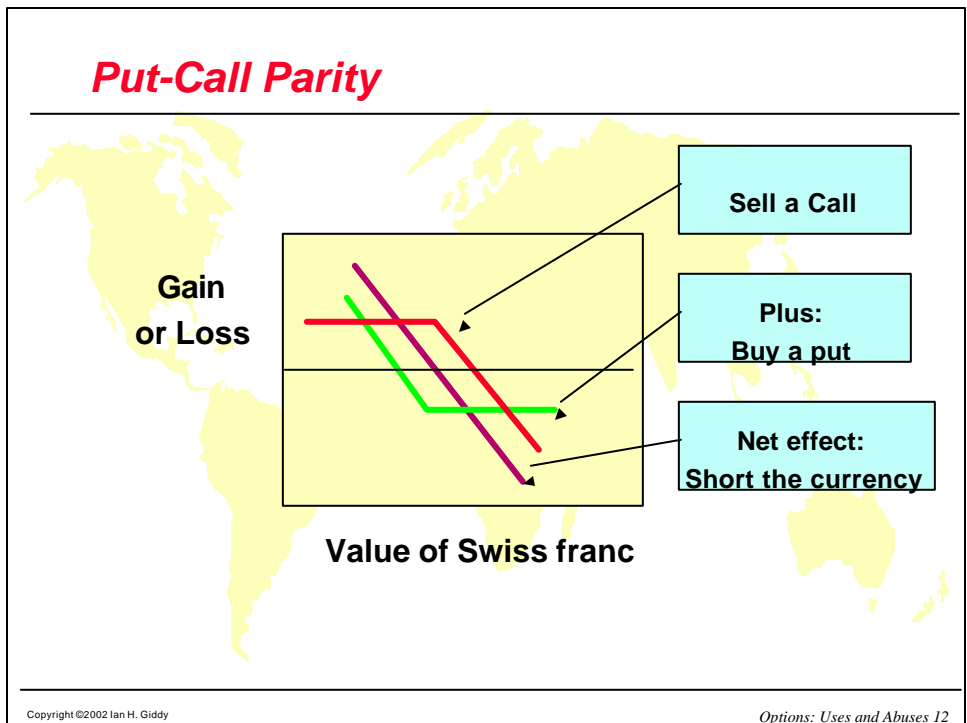
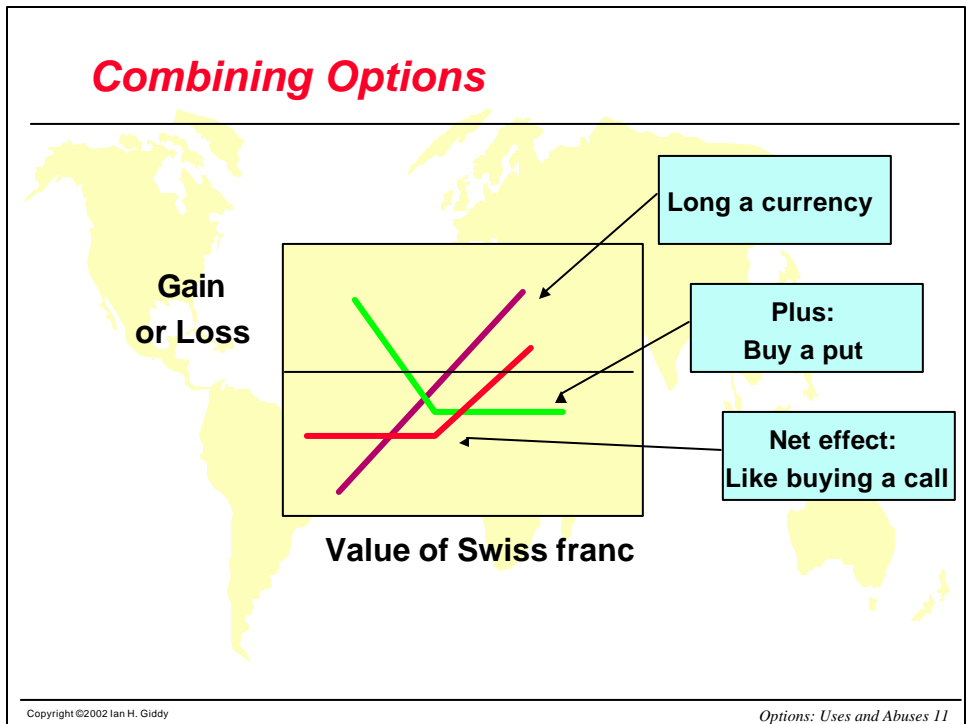
Using Currency Options: 1. Hedging a Known Position

- Example: Buy a Swiss franc put to hedge a royalty payment to be received from Switzerland



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Don't Kid Yourself

Option combinations:

Owe currency
+ buy call
= Buy put

Own currency
+ buy put
= Buy call

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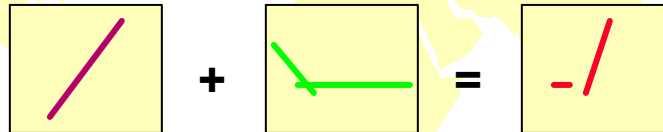
Using Currency Options: 2. Covered Call Writing

● ICI proposes...

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Using Currency Options: 3. Hedging with "Cheap Options"

- Example: Buy an out-of-the-money put to hedge a Swiss franc receivable



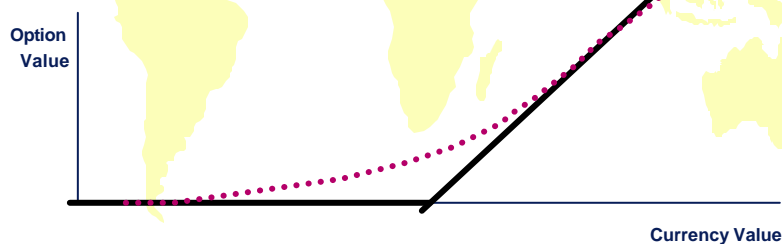
- Question: When should a firm buy ATM options?
- Answer: When the firm's view of volatility exceeds that of the market

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What Influences Option Prices?

- Forward relative to strike
- Time to expiration
- Volatility
- Interest rate

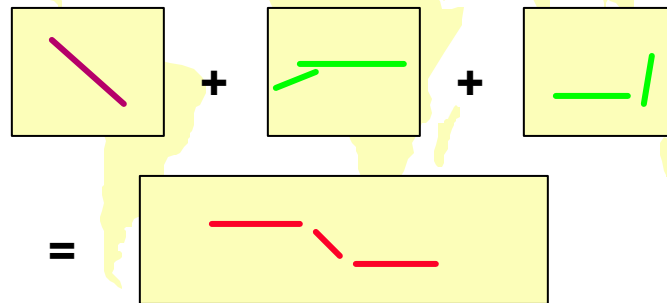


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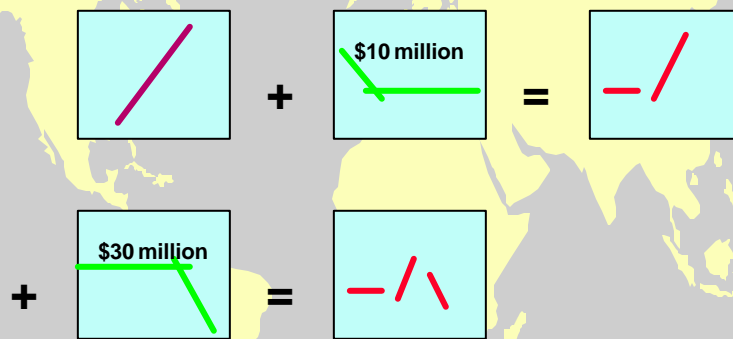
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**Using Currency Options:
4. Hedging with "Free Options"**

- Currency collar or range forward
- Eg Exposure is obligation to pay for Japanese imports in 60 days

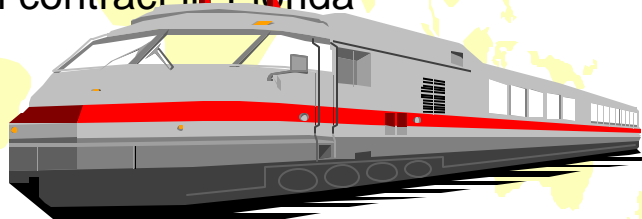
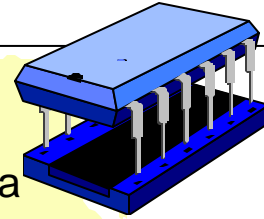


Case Study: "Options Trip"



Using Currency Options: 5. Hedging Contingent Risk

- Example 1: T.I bidding to supply chips to Saudi Arabia
- Example 2: ABB lobbying to win high-speed rail contract in Florida



- *Problem: Wrong contingency*
- *Solution: Event-contingent options*

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6. Using Options to get Hedge Accounting Treatment

- Pfizer, the US drug company, uses forwards to hedge short-term foreign-currency payables and receivables
- Pfizer uses long-dated options, as far out as 2 years, to hedge anticipated sales. This gets expensive!
- *Reason: GAAP would treat forwards used to hedge future, uncertain, sales as speculative, to be marked-to-market.*

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When Should Companies use Options to Hedge?

- Hedge *natural exposure*
 - ◆ Example: Reeves sells printing blankets with fixed local-currency prices in Europe
- Hedge against *extreme events that threaten the company's business.*
 - ◆ Example: GE could buy deep out-of-the-money options on yen.

When Use Options to Take a View?

- View on *direction*
- View on *volatility*

Direction: Volatility	Currency rising	Currency falling	No trend
Volatility increasing	Buy call	Buy put	Buy straddle
Volatility falling	Sell put	Sell call	Sell straddle
No trend in volatility	Buy forward	Sell forward	Arbitrage

Why Use Currency Options?

- Protect against downside risk
- Earn income from covered option writing
- Buy “cheap options”
- Buy “free options”
- Hedge event-contingent risk
- View on both volatility and direction
- Hedge against financial distress



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Which Instrument?

Identifiable exposure

Debt, swaps, forward contracts

Uncertain exposure

Instruments with flexibility, such as forwards and futures

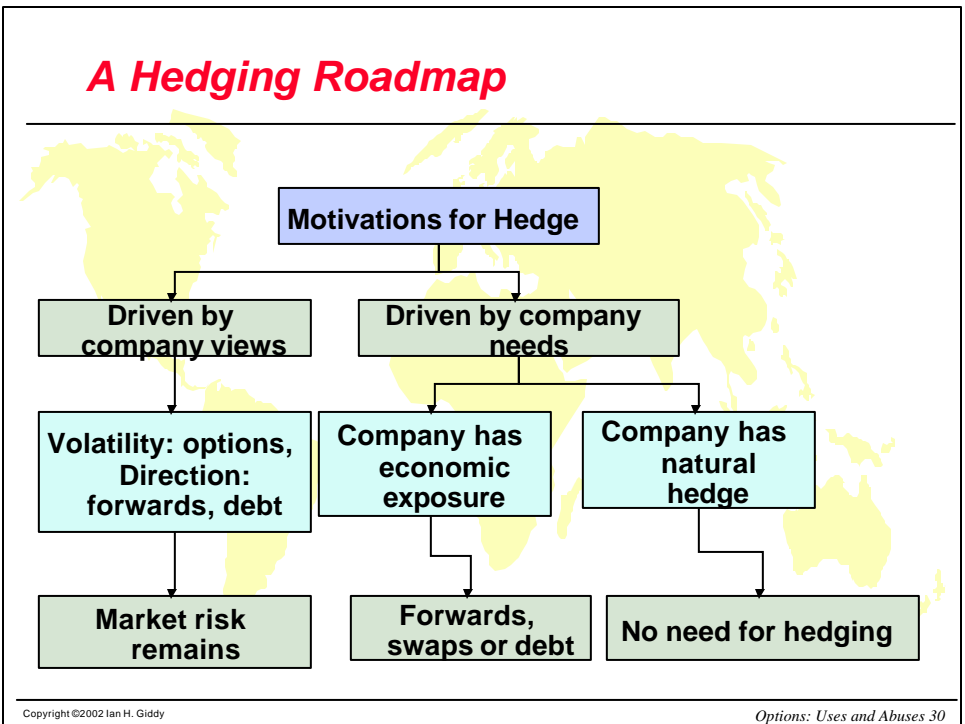
Exposure that threatens financial distress

Deep-out-of-the-money options

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A Hedging Roadmap



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