

Managing the Cost of Foreign Exchange Risk

Options and Forward Contract Pricing

Hedging

What is Hedging ... not?

- * Not an investment
- * Not beating the market
- * Not speculating
- * Not to make money

What is Hedging?

- * Tool to offset potential losses
- * Transforms a variable cost into a fixed cost (or price)
- * Can be similar to an insurance policy

How to Hedge?

Forwards

- * A contract to lock in the exchange rate today to buy or sell a currency on a future date.
 - * Obligation
 - * No upfront cost
 - * Eliminates risk, at the cost of potential gains

Options

- * A contract for the right (but not the obligation) to buy or sell a currency at a set rate on a future date.
 - * No obligation
 - * Premium paid upfront
 - * Eliminates risk, but retains possibility of gains

Which path to take?

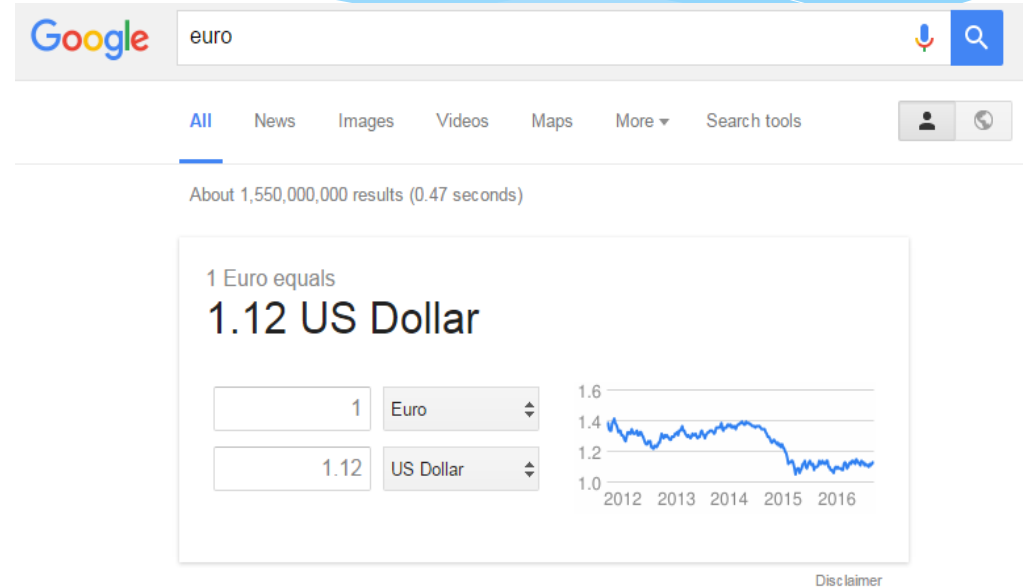
Case Study

The Kansas City Cookie Company
buys a large mixer from KitchenAid for 100,000 euros.



Solution One: Spot Payment

- * Aug 30th, KC Cookie Co. initiates a wire for 100,000 euros
- * The interbank-rate on Google is showing 1.12
- * The actual rate is 1.13



Solution One: Results

- * The cost for KC Cookie Co. is 113,00 USD
(100,000 EUR x 1.13 = 113,000 USD)
- * KC Cookie Co. debited on Aug 30th
- * KitchenAid credited on Sep 1st
- * No FX risk
- * Favorable?

Solution Two: Forward Payment

- * Locking in the rate today for a future payment
- * Payment due in 12 months
- * Google is showing 1.12 for a spot payment
- * Actual rate for a 12 month forward is 1.15



Solution Two: Results

- * The cost for KC Cookie Co. is 115,000 USD
(100,000 EUR x 1.15 = 115,000 USD)
- * KC Cookie Co. debited 12 months from now
- * What if KitchenAid doesn't ship?

Solution Three: Options

- * KC Cookie Co. buys a 100,000 EUR Call at 1.1500 with a 12 month expiration date
- * The premium of 7,000 USD is due up-front

Option Concepts

“In-the-Money”

- * When the strike rate is better than the current market
- * For a Call Option:
- * 1.15 Strike is **better** than 1.20

“Out-of-the-Money”

- * When the strike rate is worse than the current market
- * For a Call Option:
- * 1.15 Strike is **worse** than 1.10

All-In Cost

- * Adding in the premium raises your true cost to 122,000 USD if the market goes up
 - * $115,000 + 7,000 = 122,000$ USD
- * No added benefit until the euro goes above 1.22
- * If the market goes down, benefits not immediate
 - * $115,000 - 7,000 = 108,000$ USD
- * The option premium offsets gains down to 1.08

“Winning” and Still “Losing”

- * Strike rate may look better than spot market
- * Must figure all-in cost
- * Better to not have hedged?

Solution Four: “Costless” Options

- * This strategy involves simultaneously buying and selling of option contracts.
- * The premium for the option you buy is offset by the premium for the option you sell.
- * This strategy establishes a floor and a ceiling for the future exchange rate.
- * Lock in a floor of 1.13 and a ceiling of 1.15. This way they know their exchange rate will be: no worse than 1.15, but no better than 1.13.

Solution Four: Results

- * No matter what happens in the market
- * Worst case, your cost is 115,000 USD
- * Best case, your cost is 113,000 USD
- * No option premium to pay
- * Obligation if market goes lower

Case Study

Exotic Car Buyer

Buys “Magnum PI” Ferrari from Japanese Auction

How to pay?

USD versus JPY

Case Study

Energy Corp
Selling Ethanol to Canada
How to receive?
USD versus CAD
Taxes

Banks

- * Banks are for-profit institutions
- * Currency markets are decentralized
- * Every layer adds a markup to pay for infrastructure
 - * Systems, Staffing, Regulations, Compliance, Legal
- * Compare to commodity markets



Knowledge

Ignorance is bliss.
Knowledge is power.

Ask. Listen. Solve.