FX Hedging Memo – Scenario 1: U.S. Solar Equipment Importer

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Executive Summary

The firm expects to receive €4.5 million in one year, worth about $5.24 million at today's spot rate of 1.1642 EUR/USD. With the forward rate at 1.0875 and interest rate differentials (USD 4.11% vs. EUR 2.15%), the euro may weaken, reducing dollar proceeds. To mitigate this risk, we will compare forward contracts, currency options, and money market hedges using a structured model to safeguard cash flows and deliver a clear recommendation by October 24.

Background & Objectives

The company is scheduled to receive €4.5 million in one year from a European customer, creating exposure to fluctuations in the EUR/USD exchange rate. A depreciation of the euro would reduce dollar proceeds, negatively affecting profitability, liquidity, and forecast reliability. The primary objective is to protect the dollar value of this receivable through appropriate hedging. A secondary objective is to provide management with a transparent, quantitative framework that compares hedge alternatives using current market data and established risk management practices.

Methods

The firm will assess three hedging strategies: forwards (certainty, no upside), options (downside protection, premiums reduce proceeds), and money market hedges (synthetic forward, liquidity required). A spreadsheet model will use market data to calculate proceeds, effective hedge rates, and run sensitivity analysis with comparative tables and charts.

Limitations & Next Steps

Limitations: The analysis assumes stable interest rates and market conditions. Option premiums reduce net proceeds, and money market hedges may constrain liquidity.

Technical Specification: Define a quantitative plan for the spreadsheet model, including inputs, calculations, and outputs.

Excel Model: Implement the specification into a workbook with transparent formulas, sensitivity tables, and comparative visuals.

Prompt: You are an expert in FX hedging. Build an Excel workbook, ensuring all formulas are transparent and labeled:

1) Inputs: spot, forward, USD rate, EUR rate, option strike, option premium, notional. 2) Calculations: compute USD proceeds under forward, option, and money market hedges. Show the effective hedge rate and net proceeds after costs. 3) Outputs: comparative table, sensitivity table (EUR/USD ±10%, rates ±50 bps), bar chart.

Final Analysis & Recommendation: Use the model to compare strategies. Current pricing suggests the forward secures $4.89m, options preserve upside at a cost, and money market hedges eliminate risk but tie up liquidity. The recommended approach is hedging 75% with forwards and 25% with options to balance certainty and flexibility.

References

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