INTERNATIONAL TRADE AND FINANCE MASTERCLASS

PART 28 OF 25 · DEEP DIVE SERIES — PARTS 26 TO 30

PART 28

FX RISK MANAGEMENT — THE COMPLETE TREASURY TOOLKIT

A deep-dive companion to Parts 9 and 10. FX risk management is the daily discipline of every international CFO. This part covers exposure identification, every instrument in full operational depth, hedge accounting under ASC 815 with complete journal entries, the FX policy template, and the most common mistakes that cost companies millions.

IN THIS PART

- Building the transaction exposure register
- Forward contracts — pricing, rollovers, and broken dates
- Options — when to pay the premium and when not to
- Cross-currency swaps — converting foreign currency debt
- Hedge accounting — complete journal entries for all three types
- The complete FX hedging policy — ten elements fully drafted

CASE STUDIES

Each part includes fully worked case studies with detailed calculations, real-world context, and practical lessons for CFOs and finance leaders.

BUILDING ON PARTS 9 AND 10

The Daily Discipline That Protects Reported Earnings

Parts 9 and 10 introduced the FX market, the three types of exposure, and the primary hedging instruments. If you have not read those parts, begin there. This deep dive takes the operational steps that transform conceptual understanding into daily practice. Done well, FX risk management operates largely in the background — currencies move but do not create the earnings surprises that erode investor confidence. Done poorly, it creates exactly the volatility that the most carefully written quarterly guidance cannot predict or explain.

The financial consequences of poor FX risk management are large and concrete. A company with forty million dollars of annual EUR revenue and no hedging program that experiences a twelve percent EUR decline loses approximately four point eight million dollars of USD revenue — potentially wiping out an entire year's operating profit from that

market. The cost of the hedging program that would have prevented this loss — a forward contract spread of roughly twenty basis points — is approximately eighty thousand dollars on the same revenue. The ROI of hedging, in this example, is sixty to one.

Step One: Building the Transaction Exposure Register

The starting point of every FX risk management program is a complete, current exposure inventory. Transaction exposure consists of specific contractual cash flows in foreign currencies — receivables already invoiced, payables already committed, and highly probable forecast transactions within a defined horizon. The exposure register should be updated at minimum weekly, and daily for companies with significant FX activity. It should capture every material foreign currency cash flow, the currency, the amount, the expected date, and whether it is currently hedged.

◆ TRANSACTION EXPOSURE REGISTER AND SENSITIVITY

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TRANSACTION EXPOSURE REGISTER — STRUCTURE
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Date: December 31 | US Manufacturer — EUR/GBP exposures
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TYPE CCY AMOUNT SETTLEMENT HEDGED INSTRUMENT
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AR-Invoiced EUR 840,000 Feb 28 YES 3M Forward
AR-Invoiced EUR 320,000 Mar 15 YES 3M Forward
AR-Invoiced GBP 180,000 Jan 31 NO Below threshold
PO Committed EUR 1,200,000 Apr 30 YES 4M Forward
AP-Invoiced EUR 620,000 Jan 15 NO Due imminently
Forecast EUR 2,400,000 Q2 2025 50% Forward
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TOTAL EUR EXPOSURE: EUR 5,360,000
HEDGED: EUR 3,240,000 (60%)
UNHEDGED: EUR 2,120,000 (40%)
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SENSITIVITY — BOARD REPORTING FORMAT:
A 1% adverse move in EUR/USD on total EUR exposure:
1% x EUR 5,360,000 x 1.0843 = $58,118
Hedged portion offset by hedge gain: $34,871
UNHEDGED P&L; IMPACT OF 1% MOVE: $23,247
'Our EUR hedge covers 60% of total exposure. A 1%
adverse EUR/USD move costs approximately $23,000
in unhedged P&L; impact.'
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Forward Contracts — The Complete Operational Guide

When you request a forward rate quote from your bank, the rate you receive is calculated from the spot rate and the interest rate differential between the two currencies — exactly as shown in Part 9. But the quoted rate will always be worse than the theoretical rate because the bank incorporates a spread reflecting its hedging cost and profit margin. The spread on a forward is wider than on spot because the forward carries credit risk — the bank commits to transact at a future date and is exposed to your ability to perform. Getting competitive forward rates requires requesting quotes from at least two banks simultaneously. This typically narrows the spread by ten to twenty percent — worth doing on any transaction above five hundred thousand dollars equivalent.

Managing Forward Rollovers When Timing Changes

One of the most common practical complications in forward management is the situation where the underlying transaction settles on a different date from the forward maturity — a shipment is delayed, a customer pays early, a deal slips a month. The mechanism for managing this is a forward rollover: close the original forward at the current spot rate and simultaneously enter a new forward for the revised settlement date. The economics of the rollover depend on where the spot rate is relative to the original forward rate — if the currency has moved in your favor, the rollover generates a gain; if it has moved against you, a loss.

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◆ FORWARD ROLLOVER — COMPLETE MECHANICS

FORWARD ROLLOVER — COMPLETE WORKED EXAMPLE
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ORIGINAL: Sold EUR 1,000,000 forward at 1.0889 for March 31
PROBLEM: Customer payment delayed to April 30
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SPOT RATE ON MARCH 31: 1.0650 (EUR weakened)
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STEP 1: CLOSE ORIGINAL FORWARD AT SPOT
Deliver EUR 1M to bank at 1.0889: receive $1,088,900
Buy EUR 1M at spot 1.0650 to deliver: ($1,065,000)
GAIN on closing: $23,900
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STEP 2: ENTER NEW FORWARD FOR APRIL 30
From March 31 spot 1.0650, April 30 forward:
Using IRP: approximately 1.0650 x (1.054/1.037)^30/360 = 1.0698
Sell EUR 1M forward at 1.0698 for April 30
New locked proceeds: EUR 1M x 1.0698 = $1,069,800
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TOTAL ECONOMICS OF ROLLOVER:
Closing gain: $23,900
New forward locked: $1,069,800
Effective total: $1,069,800 + $23,900 = $1,093,700
vs. original locked rate: $1,088,900
ROLLOVER SLIGHTLY BETTER due to favorable spot move
Rollover is not always a cost — it depends on spot movement
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Options — When to Pay the Premium

The fundamental rule for choosing between a forward and an option is: use a forward when the underlying transaction is certain, use an option when the underlying transaction is contingent. A forward on a certain exposure gives the best economics — zero premium, full protection, locked rate. An option on a certain exposure costs the premium unnecessarily — you always have the exposure, so paying for the optionality of walking away is waste. But an option on a contingent exposure — a bid not yet won, a deal not yet signed, a forecast that might not materialize — is the correct instrument, because if the exposure does not arise, the option simply expires with no further obligation.

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◆ OPTION vs. FORWARD — INSTRUMENT SELECTION

OPTION vs. FORWARD — CORRECT INSTRUMENT SELECTION
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SCENARIO A: US company bids on EUR 22M German government contract
Win probability: 40% | Exposure if won: EUR 22M over 18 months
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WRONG APPROACH: Sell EUR forward (probability-weighted EUR 8.8M)
If bid WON: have EUR receivable — hedge works fine
If bid LOST: open short EUR 8.8M with no underlying
Speculative position created — policy violation and real risk
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CORRECT APPROACH: Buy EUR put options (right to sell EUR)
Buy puts on EUR 22M at strike 1.0700 for 18 months
Premium: 2.8% = EUR 22M x 2.8% x 1.0889 = $669,000
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IF BID WON: puts protect EUR receivable floor at 1.0700
EUR strengthens: puts expire, sell at better spot — benefit
EUR weakens below 1.07: put exercised — protected
Maximum downside: premium $669,000
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IF BID LOST: options expire. Maximum loss: premium $669,000
No speculative position, no open FX exposure
Premium is the cost of insuring the bid FX risk
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CFO RECOMMENDATION: Build $669,000 premium into bid price
EUR 22M bid + EUR 615,000 premium coverage = EUR 22,615,000
The bid that includes its hedge cost is a better bid
than one that ignores it and creates an unhedged position
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Cross-Currency Swaps — Converting Foreign Currency Debt

A cross-currency swap converts a debt obligation from one currency to another — allowing a company to access capital markets in one currency while economically servicing the debt in another. The most common corporate use is a US company that issues a USD bond for market access reasons but wants to fund the interest and principal payments from EUR revenues, eliminating the FX risk on the debt service.

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◆ CROSS-CURRENCY SWAP — COMPLETE MECHANICS
CROSS-CURRENCY SWAP — COMPLETE MECHANICS
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US company issues USD 100M 5-year bond at 5.5%
Wants to service debt from EUR revenues
EUR/USD spot: 1.0843 => EUR equivalent: EUR 92,224,000
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SWAP TERMS (with JP Morgan):
Company PAYS: EUR 4.1% on EUR 92,224,000 annually
= EUR 3,781,184 per year
Company RECEIVES: USD 5.5% on USD 100,000,000 annually
= USD 5,500,000 per year
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ANNUAL CASH FLOW — YEAR 1:
Pay USD bond coupon to bondholders: ($5,500,000)
Receive from swap (JP Morgan): +$5,500,000
Net USD cash flow from bond + swap: $0
Pay EUR to JP Morgan under swap: (EUR 3,781,184)
EUR payment funded from EUR revenues
Effective: Company has EUR DEBT at 4.1% — no FX risk
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AT MATURITY:
Deliver EUR 92,224,000 to JP Morgan
Receive USD 100,000,000 from JP Morgan
Repay USD 100,000,000 bond principal
Net principal cash flow: zero FX risk
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BENEFIT: Access USD bond market (wider/cheaper for USD issuer)
But service the debt in EUR (natural hedge from revenues)
EUR rate (4.1%) < USD equivalent (5.5%)
Annual interest saving: USD 100M x 1.4% = $1,400,000
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Hedge Accounting Under ASC 815 — Complete Journal Entries

Without hedge accounting, every derivative is marked to market at each balance sheet date and fair value changes flow through the income statement. This creates earnings volatility that does not reflect the economic reality of the hedge. ASC 815 allows companies to match derivative gains and losses with the hedged item's P&L; impact — eliminating that artificial volatility. The three hedge types each have different accounting treatment.

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◆ CASH FLOW HEDGE — COMPLETE JOURNAL ENTRIES

CASH FLOW HEDGE — COMPLETE JOURNAL ENTRIES
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FACTS: US exporter designates a EUR forward sale as a cash flow
hedge of a highly probable forecast EUR 1,000,000 EUR sale
Forward rate at designation (Day 1): 1.0889
Locked USD proceeds: $1,088,900
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DAY 1 — DESIGNATION:
No journal entry — forward has zero fair value at inception
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QUARTER END — EUR/USD moves to 1.0650 (EUR weakens):
Forward fair value gain: (1.0889 - 1.0650) x EUR 1M = $23,900
JOURNAL ENTRY:
Dr: Forward Contract (Asset) $23,900
Cr: OCI (Accumulated Other Comp. Income) $23,900
NOTE: Gain goes to OCI — NOT income statement
P&L; is clean — no volatility from the hedge
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AT SETTLEMENT (EUR sale occurs, forward settled):
EUR sale recognized at spot: EUR 1M x 1.0650 = $1,065,000
Forward settled: receive $1,088,900, deliver EUR 1M
JOURNAL ENTRIES:
Dr: Cash $1,088,900
Cr: Revenue $1,065,000
Cr: OCI reclassified to Revenue $23,900
NET REVENUE: $1,065,000 + $23,900 = $1,088,900
= exactly the locked forward rate
Hedge accounting makes the economics visible in P&L;
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The Complete FX Hedging Policy — All Ten Elements Drafted

Every company with material FX exposure should have a written policy approved by the board. The following is actual policy language — not a checklist — that a CFO can adapt and present for board approval. It covers all ten required elements in the form they would appear in a real corporate policy document.

1. Objective	This policy governs the management of foreign exchange risk arising from the Company's international operations. The primary objective is to reduce variability in reported earnings and operating cash flows attributable to exchange rate movements. This policy does not seek to eliminate all FX risk or to speculate in currency markets. All hedging activity must relate directly to identified underlying business exposures.
2. Scope	This policy covers confirmed foreign currency receivables and payables above USD 100,000 equivalent; highly probable forecast foreign currency revenues and costs within a rolling 12-month horizon; and foreign currency monetary balance sheet items of consolidated subsidiaries. Translation exposures on net investments in foreign subsidiaries are managed separately as described in Section 8 below.
3. Hedge Ratios	Confirmed transaction exposures: 75% minimum, 100% maximum. Forecast exposures within 3 months: 50% minimum, 90% maximum. Forecast exposures 3-12 months: 25% minimum, 75% maximum. Departures require CFO approval and written documentation of the rationale.
4. Permitted Instruments and Tenors	Permitted: forward contracts up to 24 months; purchased vanilla call and put options up to 12 months; zero-cost collars up to 12 months. Prohibited: leveraged FX products; barrier, digital, or average rate options; instruments with notional exceeding the underlying exposure. No instrument may be used unless the underlying exposure is documented in the exposure register.
5. Counterparty Requirements	FX transactions may only be executed with banks holding minimum long-term senior unsecured ratings of A- (S&P;) or A3 (Moody's), with a signed ISDA Master Agreement and Credit Support Annex in place. Maximum net mark-to-market exposure to any single counterparty: USD 20 million. Concentration reviewed quarterly.
6. Approval Authorities	Transactions up to USD 5M notional: Treasurer approval. USD 5M to USD 25M notional: CFO approval. Above USD 25M notional: CFO approval plus Audit Committee notification within 5 business days. Policy departures of any size: CFO approval up to USD 10M impact; Board approval above that.
7. Reporting	Monthly to CFO: hedge summary report showing all open positions, fair values, and unrealized gains/losses, plus the sensitivity table (impact of 10% adverse move in each major currency). Quarterly to Audit Committee: aggregate exposure by currency, hedge ratios, sensitivity analysis, and description of any policy departures. Annual to Board: policy reaffirmation review.
8. Hedge Accounting	The Company will seek cash flow hedge designation under ASC 815 for forward contracts hedging highly probable forecast foreign currency revenues and costs. Net investment hedge accounting will be applied to foreign currency debt instruments designated as hedges of net investments in foreign subsidiaries. The Controller maintains hedge designation documentation and conducts quarterly effectiveness assessments.
9. Controls and Record-Keeping	All FX transactions must be entered into the Treasury Management System and confirmed in writing within one business day. Deal confirmations from counterparties must be checked against TMS records within one business day of receipt. Segregation of duties: the person who executes a transaction must not be the person who records or confirms it.
10. Policy Review	This policy will be reviewed annually by the CFO and presented to the Board Audit Committee for reaffirmation. Material changes to the business model, currency exposure profile, or risk appetite will trigger an interim review. The CFO is responsible for ensuring all treasury personnel are trained on policy requirements and for maintaining records of annual training completion.

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CASE STUDY 1

Atlas Industrial Group

The Unhedged EUR Exposure — How a 12% Dollar Strengthening Turned Profit to Loss

Background

Atlas Industrial Group manufactures in the United States and invoices European customers in euros. For three years, the company had no formal hedging policy. In 2022, the euro fell twelve percent against the dollar. The European division, which had performed excellently in euro terms — volume up eight percent, prices up five percent — reported a USD operating loss for the first time in its history. The board was confused. The CFO had no framework to explain it. The audit committee asked why this had not been managed. The CFO had no answer.

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◆ UNHEDGED EXPOSURE — THE FULL FINANCIAL CONSEQUENCE

ATLAS — THE COST OF NO HEDGING POLICY
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European division performance (local currency — excellent):
EUR revenue: EUR 42M (up 8% vol x 5% price = +13.4%)
EUR operating costs: EUR 38M
EUR operating profit: EUR 4M (9.5% margin)
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USD TRANSLATION — UNHEDGED:
Prior year avg EUR/USD: 1.130 | Current year avg: 0.996
USD revenue: EUR 42M x 0.996 = $41,832,000
USD costs: EUR 38M x 0.996 = $37,848,000
USD operating profit: $3,984,000 (9.5% in EUR = 9.5% in USD)
vs. prior year USD profit: EUR 4M x 1.130 = $4,520,000
USD profit DECLINE of $536,000 despite better EUR performance
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ADDITIONAL IMPACT: USD-cost components shipped to Europe
US components: $8,400,000 USD cost embedded in EUR pricing
At EUR/USD 0.996, EUR 8,434,000 required to cover $8,400,000
vs. prior year: EUR 7,434,000 — additional EUR cost: EUR 1M
Adjusted EUR operating profit: EUR 3M
Adjusted USD profit: EUR 3M x 0.996 = $2,988,000
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HEDGED SCENARIO (70% hedge at avg forward 1.108):
Hedged revenue: EUR 42M x 70% x 1.108 = $32,613,600
Unhedged revenue: EUR 42M x 30% x 0.996 = $12,550,000
Total USD revenue: $45,163,600
vs. unhedged: $41,832,000
Hedge benefit: $3,331,600 — turns the loss story around
Annual hedge cost: EUR 42M x 0.20% spread = $83,664
ROI of hedging in this year: 40x
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CASE STUDY 2

Continental Exports Corp.

Rolling Forward Program — Complete 12-Month Outcome With Board Reporting

Background

Continental Exports Corp. has EUR 18 million of annual EUR revenue and implemented a rolling forward hedge program hedging seventy percent of forecast revenue on a twelve-month rolling basis. The program is reported monthly to the CFO

and quarterly to the board. In the program's first full year, the euro weakened from 1.084 to an average of 1.040 — a significant adverse move that the hedge program largely absorbed.

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◆ ROLLING FORWARD PROGRAM — COMPLETE ANNUAL RESULTS

CONTINENTAL — 12-MONTH HEDGE PROGRAM RESULTS
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EUR revenue: EUR 18M | Hedge ratio: 70% = EUR 12.6M hedged
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FORWARD RATES LOCKED AT YEAR START:
Q1 (avg): 1.0838 | Q2 (avg): 1.0889
Q3 (avg): 1.0922 | Q4 (avg): 1.0958
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HEDGED USD REVENUE:
Q1: EUR 3.15M x 1.0838 = $3,413,970
Q2: EUR 3.15M x 1.0889 = $3,429,885
Q3: EUR 3.15M x 1.0922 = $3,440,430
Q4: EUR 3.15M x 1.0958 = $3,451,770
Total hedged: EUR 12.6M => $13,736,055
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UNHEDGED USD REVENUE (EUR 5.4M at avg spot 1.040):
EUR 5,400,000 x 1.040 = $5,616,000
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TOTAL USD REVENUE: $13,736,055 + $5,616,000 = $19,352,055
FULLY UNHEDGED: EUR 18M x 1.040 average = $18,720,000
HEDGE BENEFIT: $19,352,055 - $18,720,000 = $632,055
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QUARTERLY BOARD REPORT LANGUAGE:
'EUR/USD averaged 1.040 in the year vs. 1.084 at program
inception — a 4.1% adverse move. Our 70% hedge ratio
protected $632,000 of revenue that would otherwise have
been lost. The unhedged 30% created a $648,000 headwind
vs. inception rates. Net FX impact: favorable $632K hedge
benefit, partially offset by $648K unhedged headwind.'
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■■ KEY TAKEAWAYS FROM PART 28

FX risk management is one of the highest-return activities a CFO can invest in. The case studies in this part demonstrate that the financial consequences of poor management are real, large, and entirely preventable. The investment required is modest: a written policy approved by the board, an exposure register updated weekly, competitive banking relationships that provide tight spreads, and a disciplined monthly process for reviewing and adjusting the hedge portfolio. For further context, refer to Parts 9 and 10 for the FX market fundamentals and basic instrument mechanics.