

Practical finance for Policy and decision makers

The goal of this presentation is to provide practical exercises for policy and decision makers, to provide better regulatory infrastructure for the former and achieve better results for the former.

Case 1

Coca-Cola and Factoring

Coca-Cola



Coke
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Coke



Currency Risk Management Through Factoring

As of October 22, 2026, Ms. Linda Moreau assumed the role of CFO at Coca-Cola International. In her strategic review of currency risk exposures across high-volatility markets, she proposed evaluating **factoring** as an external risk management tool. This presentation examines what factoring entails, how it mitigates currency risk, and whether it represents a sound strategic option for Coca-Cola's emerging market operations.



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Understanding Factoring: Definition and Mechanics

What Is Factoring?

Factoring is a financial arrangement where a company sells its accounts receivable to a specialized institution—the factor—at a discount. Rather than waiting 60 to 90 days for customer payments, companies receive immediate cash, typically 75% to 95% of the invoice value.

The factor assumes responsibility for collecting payment from customers, transforming uncertain future cash flows into **immediate liquidity**.



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How Factoring Reduces Currency Exposure



Instant Currency Conversion

Coca-Cola receives immediate payment in stable currencies like USD or EUR, **eliminating exposure** to local currency depreciation in markets such as Turkey, Egypt, or South Africa before customer payment arrives.



Compressed Exposure Window

Traditional 60-120 day payment cycles create prolonged currency risk. Factoring **reduces this window to zero**, protecting against sharp exchange rate movements during collection periods.



Credit Risk Transfer

Under **non-recourse factoring**, the factor absorbs customer default risk—particularly valuable in countries with fragile banking systems, slow-paying distributors, or elevated counterparty risk.

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Strategic Benefits for Coca-Cola



Factoring delivers multiple operational and financial advantages, particularly for multinational operations facing currency volatility and working capital constraints in emerging markets.

- 1- It hedges (reduces) currency volatility risk
- 2- it hedges (reduces) default risk, which is the risk that the buyer will not pay the seller
- 3- it provides Immediate liquidity to the company selling (instead of receiving 100% of the money after 90 days, they receive 95% of the money today).

Important Limitations to Consider

High Cost Structure

Factoring involves multiple costs: **discount rates** (typically 1-5% of invoice value), interest charges on advances, and administrative fees. In markets with already thin margins, these expenses can significantly erode profitability and ROI.

External Dependence

Coca-Cola relinquishes direct control over customer relationships and collection processes. The company becomes dependent on the factor's efficiency, customer service quality, and collection practices—which may not align with corporate standards.

Limited Applicability

In developed markets with **stable currencies**, strong banking systems, and reliable payment cycles (US, Western Europe, Japan), factoring adds cost without commensurate benefit. These markets require different risk management approaches.



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Strategic Recommendation



Should you Apply factoring in your company?

It depends on the Case

Factoring is recommended for high-volatility currency environments only. It should be implemented strategically in subsidiaries operating across the Middle East, Africa, and Latin America where currencies fluctuate dramatically and collection delays are systemic.



Target Markets

Egypt, Turkey, Argentina, Nigeria, South Africa—regions with volatile currencies and extended payment cycles



Integrated Approach

Combine with internal hedging (netting, matching, leading & lagging) and external instruments (forwards, swaps, options)

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Case 2

Nestle in Egypt





Foreign Currency Translation of Inventory Under IFRS

Understanding how multinational corporations translate inventory values across currencies—a practical case study using Nestlé's Egyptian subsidiary.

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The Scenario: Nestlé Egypt

Background Context

Nestlé Switzerland operates a subsidiary in Egypt that reports financial statements back to headquarters in Vevey, Switzerland. The subsidiary purchases local materials in Egyptian Pounds (EGP) but must report in Swiss Francs (CHF).

This creates a translation challenge when exchange rates fluctuate significantly, particularly in volatile emerging markets like Egypt.

Key Players

- **Parent:** Nestlé Switzerland (CHF)
- **Subsidiary:** Nestlé Egypt (EGP)

The Purchase Transaction

Purchase Date

February 2027

Amount Paid

EGP 18,450,000

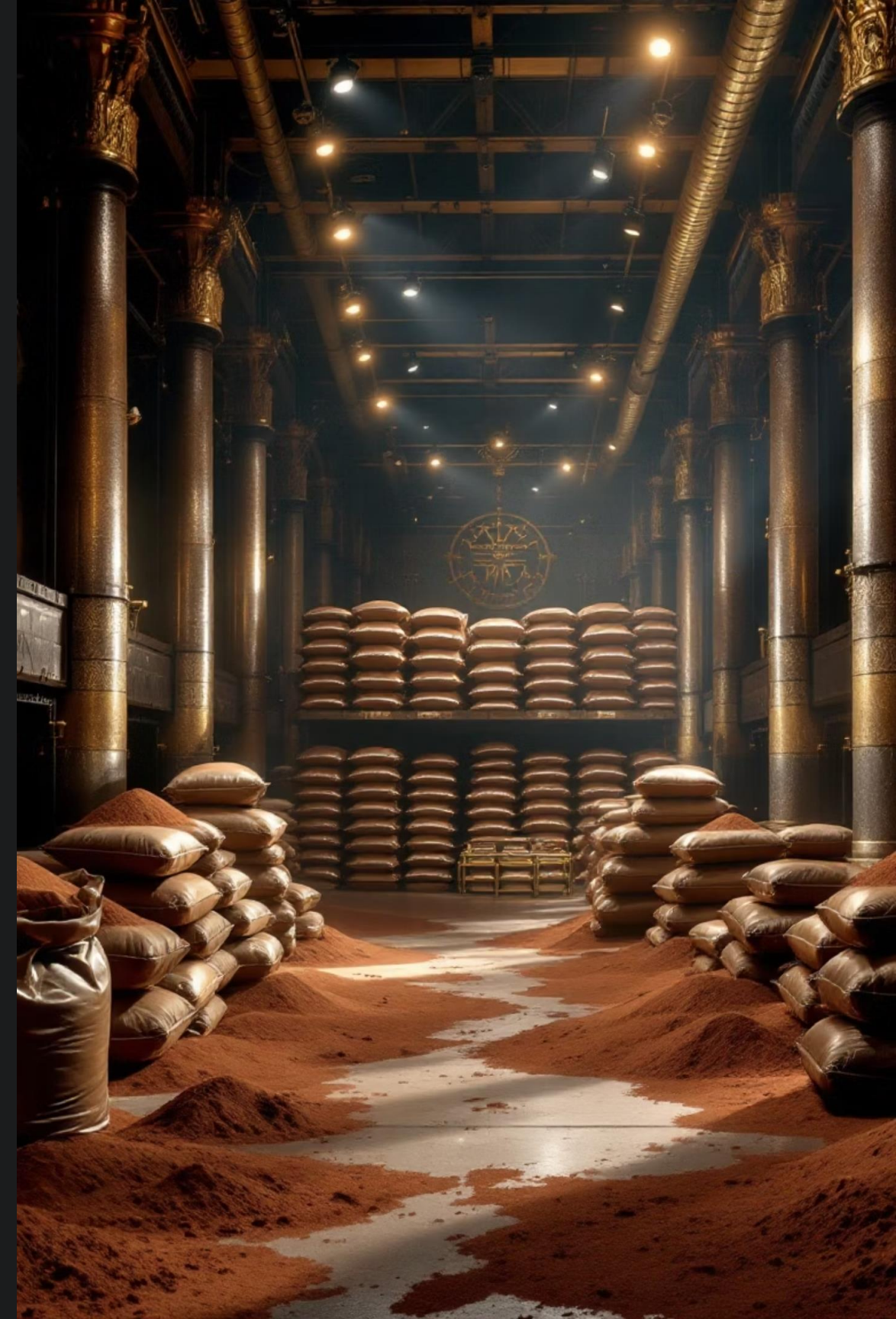
Exchange Rate

1 CHF = 75 EGP

Product

Cocoa Powder (Local Supplier)

The cocoa powder was purchased from a local Egyptian supplier using Egyptian Pounds. At the time of purchase, the exchange rate was stable at 75 EGP per CHF.



Currency Shock: The Egyptian Pound Crisis

February 2027

75
EGP

per 1 CHF

Stable exchange rate at time of
purchase

December 2027

150
EGP

per 1 CHF

50% depreciation of the Egyptian
Pound



The Core Question

How should Nestlé Switzerland translate the value of this cocoa inventory from EGP to CHF on December 31, 2027?

The answer depends entirely on which translation method is applied. Each of the four standard methods produces a different CHF value, reflecting different accounting philosophies about when to recognize currency fluctuations.



Four Translation Methods: The Results

Translation Method	Inventory Value (CHF)	Rate Used
All-Current Method $1845000/150=123,000$	123,000	Current (150)
Current / Non-Current Method $1845000/150=123,000$	123,000	Current (150)
Monetary / Non-Monetary Method $1845000/75=246,000$	246,000	Historical (75)
Temporal Method $1845000/75=246,000$	246,000	Historical (75)

Notice the dramatic difference: **123,000 CHF** versus **246,000 CHF**
The All-Current Method translates everything at the closing rate
While the current/non-current method translates current assets-liabilities at the current rate
And non-current assets and liabilities at the historical rate

Understanding the Calculations

 $\frac{f}{dx}$

Historical Cost in CHF

$$18,450,000 \text{ EGP} \div 75 = \mathbf{246,000 \text{ CHF}}$$

This is the original cost translated at the February 2027 exchange rate. (Closing Rate)



Current Rate Value in CHF

$$18,450,000 \text{ EGP} \div 150 = \mathbf{123,000 \text{ CHF}}$$

This is the same inventory translated at the December 2027 exchange rate. (Historical rate)

The monetary / non-monetary method translates **monetary item** (Cash-debt-AR-AP) at the closing (current) rate and **non-monetary item** are retained at historical cost.

The temporal method translates items that have been previously revaluated at the current rate while items that are retained at cost (not-modified earlier) under historical rate

Why the Methods Differ

Current Rate Methods

All-Current and Current/Non-Current

- Inventory translated at year-end rate (150 EGP/CHF)
- Reflects current economic reality
- Result: **123,000 CHF**
- Recognizes currency loss immediately

Historical Rate Methods

Monetary/Non-Monetary and Temporal

- Inventory at historical rate (75 EGP/CHF)
- Preserves original cost basis
- Result: **246,000 CHF**
- Defers recognition of currency impact



Key Takeaways for IFRS Translation

1 Method Selection Matters

Translation method choice can create **100% variance** in reported inventory values—from 123,000 to 246,000 CHF in this case.

2 Inventory Classification Is Critical

Understanding whether inventory is monetary vs. non-monetary, or current vs. non-current, determines which exchange rate applies.

3 Currency Risk Is Real

Emerging market volatility (like Egypt's 50% depreciation) creates significant translation exposure for multinational corporations.

Case 3 Ukraine Central Bank





CENTRAL BANK

Money Supply and Monetary Policy

Understanding reserve requirements, money creation, and policy implementation lags through real-world scenarios

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The Ukraine Case Study

Scenario Overview

Ukrainian banking system holds **120.5 billion euros** in current deposits. The central bank maintains a Required Reserve Ratio (RRR) of 20%.

This case examines how changes in reserve requirements affect money creation and explores the timeline of monetary policy responses during a currency crisis.



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Part 1: Calculating Required Reserves

01

Given Information

Current deposits: **120.5 billion EUR**

Required Reserve Ratio: **20%**

02

Apply the Formula

Required Reserves = Deposits \times RRR

RR = 120.5×0.20

03

Solution

Required Reserves = 24.10 billion EUR

This amount must be held by banks and cannot be lent out



Understanding Reserve Requirements

What Are Required Reserves?

Required reserves are funds that banks must hold and cannot lend. They serve as a buffer against bank runs and give central banks control over money creation.

The 20% Rule in Ukraine

With a 20% RRR, for every 100 euros deposited, banks must keep 20 euros in reserve and can lend out 80 euros.

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Part 2: Money Creation Through RRR Changes

When the Required Reserve Ratio decreases from 20% to 12%, banks can lend more money. Let's calculate the impact.


$$\frac{f}{dx}$$

Step 1: Calculate New Required Reserves

At 12%: $RR = 120.5 \times 0.12 = \mathbf{14.46 \text{ billion EUR}}$



Step 2: Find Excess Reserves Freed

$24.10 - 14.46 = \mathbf{9.64 \text{ billion EUR}}$ now available to lend



Step 3: Apply Money Multiplier Formula : $M = 1 / RRR$

Multiplier = $1 \div 0.12 = \mathbf{8.33}$



Step 4: Calculate New Money (Money Created = New Loans \times Multiplier M)

$9.64 \times 8.33 = \mathbf{80.3 \text{ billion EUR}}$ in new money created

The Money Multiplier Effect

20%

Original RRR

Multiplier: 5.0

12%

New RRR

Multiplier: 8.33

80.3B

New Money

Additional euros
created

The decrease in reserve requirements amplifies the banking system's ability to create money. Each euro of freed reserves generates 8.33 euros through multiple rounds of lending and redepositing.



Part 3: The Ukrainian Currency Crisis Timeline



Understanding Policy Lags

Recognition Lag

10 months

Time from crisis start (March 2020) to official acknowledgment (January 2021)

Action Lag

1 year, 9 months

Time from recognition (January 2021) to policy implementation (October 2022)

Impact Lag

6 months

Time from reforms (October 2022) to stabilization (April 2023)



Why Policy Lags Matter



Total Response Time

From crisis onset to stability: **37 months (over 3 years)**

The lengthy delays in Ukraine's hypothetical scenario response illustrate why timely monetary policy is crucial. Recognition lag reflects data collection challenges, action lag shows political and institutional barriers, and impact lag demonstrates how long markets need to adjust.

- ❑ **Key Takeaway:** Even well-designed policies face significant time delays. Central banks must act as quickly as possible to account for these inevitable lags.

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Summary: Money Supply Mechanics

Reserve Requirements

At 20% RRR, Ukraine's banks hold **24.10 billion EUR** in required reserves

Money Creation Power

Reducing RRR from 20% to 12% enables creation of **80.3 billion EUR** in new money through the multiplier effect

Policy Implementation

Total lag of 37 months demonstrates why central banks must anticipate crises rather than simply react to them



Case 4 Germany



Economic Policy Analysis: The Case of Germany

Examining fiscal stimulus, crowding out effects, and liquidity traps in an economy facing institutional challenges



The Hypothetical German Economic Challenge

Current Situation

Official institutions in Germany stopped publishing reliable public debt figures after 2037, creating significant uncertainty for investors and policymakers.

Proposed Solution

An international support package of **\$8 billion USD**, combined with comprehensive structural reforms, could significantly stabilize the economic situation.

Key parameters:

- MPC: 0.8
- Tax rate: 20%



Learning outcome: Understanding Crowding Out

What mechanisms can cause crowding out effects in Germany's economy?

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The Crowding Out Mechanism

1

Government Borrows Heavily

Large-scale issuance of domestic bonds to finance deficit spending

2

Credit Reallocation

Banks shift lending from private sector to government securities

3

Interest Rates Rise

Increased demand for credit pushes market rates upward

4

Private Investment Falls

Firms and households reduce borrowing and investment

The key insight: When government finances spending through **domestic borrowing** rather than taxes or external grants, it competes with the private sector for limited credit resources, ultimately reducing private investment and consumption.

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Learning outcome The Liquidity Trap Problem

Under what conditions could Germany experience a liquidity trap where monetary policy becomes ineffective?

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Causes of a Liquidity Trap in Germany

Deep Economic Uncertainty

Lack of confidence in currency stability and banking sector integrity undermines the transmission of monetary policy

Banking Sector Fears

Concerns about potential bank failures lead agents to hold physical cash or foreign currency rather than deposits

Ineffective Interest Rates

When rates are already very low, further reductions provide no incentive to shift from money to bonds or investments

📌 **Critical Result:** Even when the central bank injects liquidity and expands the monetary base, banks hold excess reserves and households hoard cash. Additional liquidity fails to translate into higher spending and investment—monetary policy becomes powerless.

Learning outcome: Calculating the Fiscal Multiplier Effect

How much would Germany's national income expand from an \$8 billion USD government expenditure increase?

01

Compute Effective MPC After Tax

$$\text{MPC} \times (1 - t) = 0.8 \times 0.8 = 0.64$$

02

Calculate the Multiplier

$$k = 1 / (1 - 0.64) = 1 / 0.36 \approx 2.78$$

03

Determine Income Change

$$\Delta Y = k \times \Delta G \approx 2.78 \times \$8\text{B} \approx \$22.2\text{B}$$

The Multiplier Formula Explained

Key Formula

$$k = \frac{1}{1 - MPC \times (1 - t)}$$

Where:

- MPC = 0.8
- t (tax rate) = 0.20
- ΔG = \$8 billion

Why the Multiplier Works

Government spending creates a chain reaction: initial expenditure becomes income for recipients, who spend 80% of their after-tax income, creating more income for others.

The proportional tax reduces each round of spending, but the **cumulative effect** still amplifies the initial injection significantly.

With a multiplier of 2.78, each dollar of government spending generates nearly three dollars of total economic activity.



Income Expansion: The Bottom Line

\$8B

Government
Spending
Injection

International support
package fully
deployed as fiscal
stimulus

2.78

Fiscal Multiplier

Each dollar generates
additional economic
activity through
consumption rounds

\$22.2B

Total Income
Expansion

Estimated increase in
national income from
the fiscal intervention

The analysis demonstrates that strategic fiscal policy, when properly calibrated to Germany's economic parameters, can generate substantial multiplier effects and meaningfully improve economic conditions.

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Key Takeaways for Policy Design

Financing Matters

How government spending is financed determines whether crowding out occurs. External grants and tax-based financing minimize displacement of private investment.

Context Shapes Effectiveness

Monetary policy loses traction in liquidity traps. When confidence is low and rates are near zero, fiscal policy becomes the primary stabilization tool.

Multipliers Amplify Impact

With an MPC of 0.8 and 20% tax rate, Germany's multiplier of 2.78 means well-designed fiscal interventions can generate outsized returns for a small economy.

Reform Complements Stimulus

The \$8 billion support package must be paired with structural reforms—restoring institutional credibility, transparency in debt reporting, and banking sector stability—to maximize long-term impact.

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