# Accounts Payable & Trade Credit Master Reference Sheet

*Cash Discounts (2/10, net 30), Annualized Cost of Foregone Discount, DPO & Three-Way Match Controls*

## 1. CASH DISCOUNT ECONOMICS & ANNUALIZED COST EQUATION

| Credit Term & Parameter | Meaning & Mathematical Definition | Journal Entry & Financial Implication |
|---|---|---|
| **Credit Terms: '2/10, net 30'** | Customer receives 2% discount if paid within 10 days; full invoice balance due in 30 days. | **Dr. Accounts Payable ..... $1,000**<br>Cr. Cash ($1,000 × 98%) ..... $980<br>Cr. Inventory / Purchase Disc ..... $20 |
| **Annualized Cost of Foregoing Cash Discount** | **Nominal Cost = [Discount % / (100 - Discount %)] × [365 / (Total Days - Discount Days)]** | For 2/10, net 30:<br>**[2 / 98] × [365 / (30 - 10)] = 2.04% × 18.25 = 37.24% APR!**<br>Always take discount unless borrowing rate > 37.24%. |

## 2. DPO RATIO & THREE-WAY MATCH INTERNAL CONTROLS

| Control / Metric | Formula & Operational Process | Management Objective & Risk Mitigation |
|---|---|---|
| **Days Payable Outstanding (DPO)** | **DPO = (Average Accounts Payable / Total COGS) × 365**<br>AP Turnover = Total COGS / Average Accounts Payable | Measures average days taken to pay vendors. Higher DPO retains cash longer but risks supplier relations and credit terms. |
| **Three-Way Match Verification** | Before AP voucher approval and check release, accounts payable clerk must reconcile:<br>1. **Purchase Order (PO)** from Purchasing Dept.<br>2. **Receiving Report** from Loading Dock.<br>3. **Vendor Invoice** from Supplier. | Prevents payment for unreceived goods, incorrect quantities, unauthorized prices, duplicate billings, and fictitious vendor fraud. |