


Essential Learning for CTP Candidates

Carolinas Cash Adventure 2018 – Session #CTP-12

Carolinas Cash Adventure – 2018: CTP Track
Disbursements, Collections & Concentration
Session #11 (Tues. 2:15 – 4:00 pm)



❖ **ETM5-Chapter 12:**
*Disbursements,
Collections and
Concentration*


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As a prep course for the CTP exam, significant portions of these lectures are based on materials from the *Essentials* text.

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Overview of Chapter 12 Topics



- Introduction
- Disbursements
- Collections
- Concentration of Funds



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Disbursements

- Disbursement Management Products
- Electronic Disbursement Products
- Card Payments
- Outsourced Accounts Payable(A/P) Services
- Managing Disbursement Information
- Payments Fraud



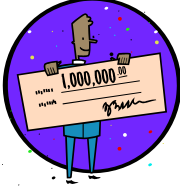
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Disbursement Management Products


- Demand Deposit Accounts (DDAs)
- Zero Balance Accounts (ZBAs)
- Controlled Disbursement
- Imprest Accounts



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Zero Balance Account (ZBA)


- Disbursement account with zero balance
- Credits and debits are posted daily
- Funding of debit balance is automatic from a master account at same bank
- Multi-tiered ZBAs used for companies with multiple divisions or subsidiaries to write checks on separate accounts or to segregate different types of payments



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Controlled Disbursement

- Provides notification of checks that will clear account that day
- Offered in conjunction with Fed Payor Bank Services
- Often combined with a ZBA
- Managing discrepancies after notification
- Funding of disbursement accounts
- Credit risk from bank's perspective





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Electronic Disbursement Products


- Direct Deposit (ACH) Payments
- Tax Payments
- Wire Transfers



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Wire Transfers

- Fedwire is only true RTGS in U.S.
- To meet the needs of corporate users, banks generally classify wire transfers by usage category
 - Repetitive wire
 - Semi-repetitive wire
 - Non-repetitive wire (Free form)
 - Drawdown wire
 - Standing wire
 - Book transfers (within same bank)
 - These do NOT go through Fedwire = Cheaper




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Card Payments

These are covered in detail in Chapter 4 – Payment Systems

- Purchasing Cards
- Travel & Entertainment (T&E) Cards
- Fleet Cards
- Combined Cards
- Payroll and Other Stored-Value Cards
- Electronic Benefit Transfer (EBT Cards)



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Outsourced Disbursement Services

- Freight payments
- Payroll services
- Integrated or comprehensive A/P
 - Firm sends a data file to a financial services provider periodically with a list of all payments to be made, including all detail information on payees
 - Financial service provide maintains a database of all the firm's payees and only limited payment information needs to be sent
- Payment factories



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Managing Disbursement Information

- Balance Reporting Services
- Account Reconciliation Program (ARP)
 - Full or Partial Recon, Sort Only
 - Inquiries and Stop Payments
 - High-Order Prefix (Divisional Sort)
- Check Images
 - Check Retention (Safekeeping)



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Payments Fraud

- A major concern for all organizations
- Many use positive pay or reverse positive pay
- Also, ACH filters and blocks, and daily reconciliations to help detect and control payments fraud
- Some best practices
 - Check stock with security features
 - Segregation of duties
 - Dual authentication for EFT transactions
 - Reduction/elimination of non-repetitive wires
 - Separate accounts for receipts & disbursements
 - Dedicated computer for all on-line EFT transactions
- Card payment fraud is becoming a bigger issue
- "Holder in Due Course" issue in check fraud



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Account Reconciliation and Supporting Services

- Account Reconciliation Services
 - Full or Partial Recon, Sort Only
- Positive Pay (Match Pay)
 - Checks presented at bank are matched to check issued file
 - May include payee verification
- Inquiries and Stop Payments
- Check Retention (Safekeeping)
- High-Order Prefix (Divisional Sort)




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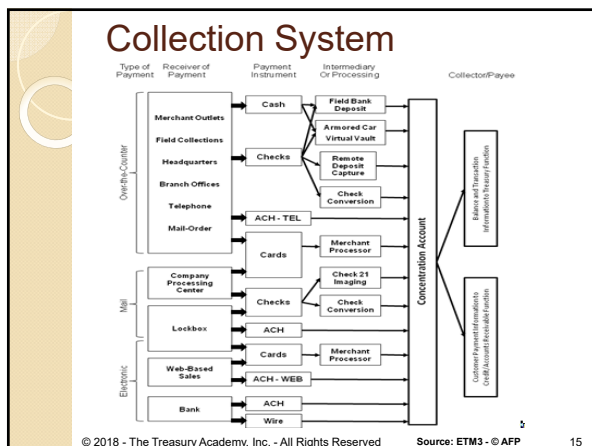
Collections

Key Issues in Collection Systems

- Speed of Collection
- Security of Payment
- Availability of Remittance Information
- Cost of Collection

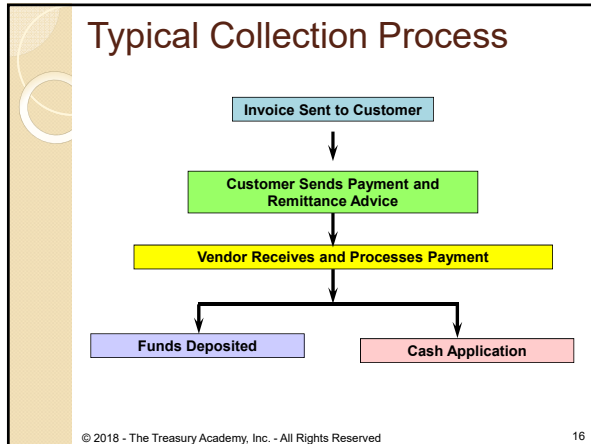


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Domestic Collection Products

- Armored Carriers and Smart Safes (Virtual Vault)
- Merchant Services
- Remote Deposit Capture(RDC) 
- Check Conversion
- Mail Payments
- Lockbox
- Electronic Fund Transfer(EFT) with Remittance Information
- Electronic Bill Presentment and Payment(EBPP) and Electronic Invoice Presentment and Payment(EIPP)
- Consolidated Remittance Processing(CRP)
- Imaging Technology

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Collection Float in Mail Systems

- Components
 - Mail Float
 - Mail Time 
 - Processing Float
 - Deposit Preparation Time 
 - Impact of Remote Deposit Capture (RDC)
 - Availability Float
 - Check Clearing Time 
- Measurement of Float
 - Dollar-Days

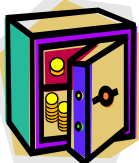
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Lockbox Processing Systems



- Collection tool in which an FI or 3rd party vendor receives payments at specified post office box addresses, then processes the remittances and credits the payments into a payee's account.
- Advantages of Lockbox Systems
 - Reduced mail & processing float
 - Improved access to remittance information
 - Reduced information float
 - Reduced risk and improved security (pmts no longer received internally)
 - Improved control and record keeping capabilities
 - Uninterrupted service
 - Scalability
 - Proper segregation of duties



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Different Types of Lockboxes



- Retail
 - Used to process high-volume, small-dollar consumer remittances (C2B)
 - Checks are accompanied by standardized, machine-scannable remittance documents
 - Highly automated
 - Focus is on reducing processing cost
- Wholesale
 - Used to process low-volume, large-dollar B2B payments with detailed remittance information
 - Focus is on float reduction
 - Often manual and/or semi-automated
 - Usually highly customized
- Hybrid (or Wholetail)
 - Combine features of both

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Lockbox Cost/Benefit Analysis

- Annual Sales = \$108 Million (\$9M/month)
- Average check size = \$9,000
- Annual vol. of checks = 12,000
- Opportunity costs = 9%
- Internal processing = \$0.25/item
- Lockbox costs = \$10,000/yr plus \$0.50 per item

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Without Lockbox

Batch	Dollar Amount	Calendar Days of Collection Float	Total Dollar-Days
1	\$1,500,000	X 4 =	\$6,000,000
2	\$4,500,000	X 2 =	\$9,000,000
3	\$3,000,000	X 6 =	\$18,000,000
Total Deposits	\$9,000,000	Total Float	\$33,000,000
		Divided by 30 Calendar Days	\$1,100,000

Annual Cost of Float
 = Average Dollar-Days times Opportunity Cost
 = \$1,100,000 x .09 = \$99,000

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Lockbox Assumptions

- Lockbox can deliver the following float reductions:
 - Batch 1 from 4 days to 3 days
 - Batch 2 from 2 days to 1 day
 - Batch 3 from 6 days to 5 days
- Lockbox costs
 - \$10,000 annual fee
 - \$0.50 per item processing fee

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With Lockbox

Batch	Dollar Amount	Calendar Days of Collection Float	Total Dollar-Days
1	\$1,500,000	X 3 =	\$4,500,000
2	\$4,500,000	X 1 =	\$4,500,000
3	\$3,000,000	X 5 =	\$15,000,000
Total Deposits	\$9,000,000	Total Float	\$24,000,000
		Divided by 30 Calendar Days	\$800,000

Annual Cost of Float
 = Average Dollar-Days times Opportunity Cost
 = \$800,000 x .09 = \$72,000

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Comparison of Alternatives

- Without Lockbox Float Cost = \$99,000
- With Lockbox Scenario
 - Float cost savings = \$99,000 – \$72,000 = \$27,000
 - Fixed Costs of Lockbox = \$10,000
 - Variable Costs of Lockbox = 12,000 x \$0.50 = \$6,000
 - Elimination of internal processing costs = 12,000 x \$0.25 = \$3,000
 - Net Benefit = Savings minus lockbox costs
 = (\$27,000 + \$3,000) – (\$10,000 + \$6,000)
 = \$30,000 – \$16,000 = \$14,000

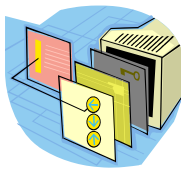


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Collection Process Improvement


- Electronic Funds Transfer (EFT) with Remittance Information
- EBPP and EIPP
- Consolidated Remittance Processing (CRP)
 - Formerly known as an “Electronic Lockbox”
 - Single point for receiving all payments
 - Provides for a single data transmission to A/R
- Imaging Technology



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Switching from Check to EFT

- ❖ Treasury focus is on the payment portion of the cycle
- ❖ Calculation: Float Neutral Calculation
 - TD = total days difference in payment timing
 - r = Opportunity cost as an annual rate

$$\text{Discount} = 1 - \frac{1}{1 + \text{TD} \left(\frac{r}{365} \right)}$$



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Float Neutral Calculation

- Assume $r = 5\%$ and $TD = 3$ days



$$\text{Discount} = 1 - \frac{1}{1 + 3 \left(\frac{0.05}{365} \right)}$$

$$= 1 - \frac{1}{1.00041096} = 1 - 0.99958921$$

$$= 0.00041079 = 0.00041 \text{ (Rounded) or } 0.041\%$$


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If the buyer is allowed to take a discount of 0.041 %, they would be indifferent (in present value terms) between paying by check or by electronic transfer (a speedup of 3 days in loss of value)

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Imaging Technology


- This can be used to facilitate the processing of both wholesale and retail remittance information
- Potential benefits include:
 - Reduced overall processing costs
 - Reduced courier fees
 - Increased productivity
 - Improved accuracy
 - Automated updating of A/R
 - Improved response time to customer inquiries
 - Faster resolution of lockbox discrepancies



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Cross-Border Collections and Trade Management Products

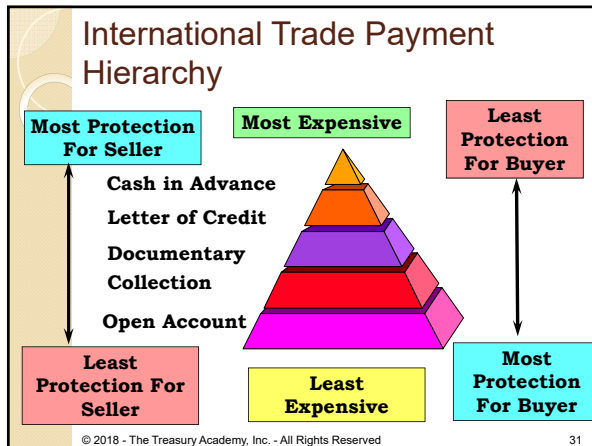
- Open Account
- Letter of Credit
- Documentary Collection
- Banker's Acceptance (BA)
- Trade Acceptance
- Other Trade Payment Methods
 - Barter
 - Countertrade
 - Trading Companies



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Open Account


- Responsibility of Seller
 - Checks the creditworthiness of the buyer
 - Establishes credit terms and limits
 - Ships the merchandise
 - Sends an invoice to the buyer
- Responsibility of Buyer
 - Initiates payment to the seller in accordance with any agreed upon credit terms



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Open Account

- Use of Open Account
 - In the U.S., most frequently used method of payment
 - Widely used internationally when two trading partners have an existing relationship
- When to Use Other Methods
 - Exporting goods to a non-domestic buyer where there is no established relationship




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Letter of Credit (L/C)



- An L/C is a document issued by a bank, guaranteeing the payment of a customer's draft up to a stated amount for a specified period, provided certain conditions are met.
- The L/C substitutes a bank's credit for that of the buyer, virtually eliminating the credit risk to the seller.
- Commercial Letter of Credit
 - Mechanism of payment on a trade transaction
 - Governed by UCP 600
- Standby Letter of Credit or Guarantee
 - Ensures financial performance of a bank's customer to a third-party beneficiary
 - Typically used as a credit enhancement

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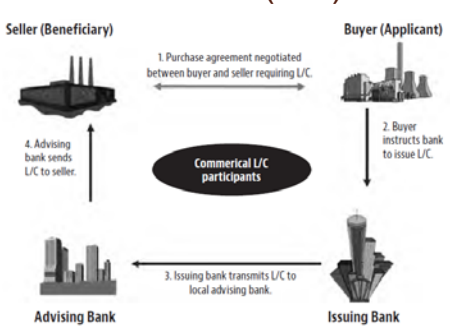
Role of Banks



- Issuing Bank
 - Buyer's (importer) bank that issues L/C
- Advising Bank
 - Seller's (exporter) bank that advises beneficiary of L/C in its favor
- Negotiating Bank
 - Examines documents and pays beneficiary (often same as advising bank)
- Confirming Bank
 - Commits to beneficiary that payment will be made regardless of issuing banks ability to pay

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Letter of Credit (L/C)



The flowchart illustrates the process of a Letter of Credit (L/C) between four main parties: Seller (Beneficiary), Buyer (Applicant), Issuing Bank, and Advising Bank. The process follows these steps:

- 1. Purchase agreement negotiated between buyer and seller requiring L/C.** (Arrow from Buyer to Seller)
- 2. Buyer instructs bank to issue L/C.** (Arrow from Buyer to Issuing Bank)
- 3. Issuing bank transmits L/C to local advising bank.** (Arrow from Issuing Bank to Advising Bank)
- 4. Advising bank sends L/C to seller.** (Arrow from Advising Bank to Seller)

Commerical L/C participants

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Other L/C Issues



- UCP 600
 - Uniform Customs and Practice for Documentary Credits
 - Any trade documentation should be in compliance with these guidelines
- Standby Letters of Credit and Guarantees
 - Issued by banks to serve as a vehicle to ensure the financial performance of a bank's customer to a third-party beneficiary
 - Can be used as a credit enhancement for CP programs or to guarantee a bid tender or financial performance on a contract

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Documentary Collections



- Payment method that processes the collection of a draft and accompanying shipping documents through international correspondent banks
- Instructions regarding the specifics of the transaction are contained in a collection letter or form that accompanies the documentation
- Exporter must determine the specific instructions to be used in a collection letter

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Role of Banks

- Remitting Bank
 - Seller's (exporter) bank that prepares the collection letter and forwards documents to a correspondent bank in the buyer's (importer) country
- Collecting (Presenting) Bank
 - The correspondent bank that is responsible for contacting the buyer (importer), collecting the amount due and releasing the documents as instructed

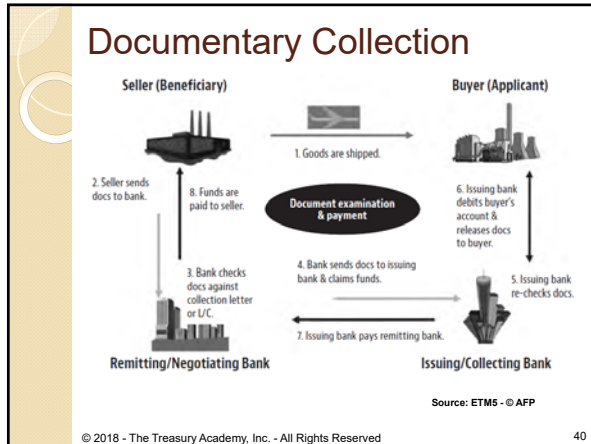


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More in International Trade

- Banker's Acceptance (BA)
 - Can be used to finance the import, export or domestic shipment of goods, as well as the storage of properly titled goods.
 - Less expensive form of short-term financing than a loan
 - Costs include discount rate and commission
- Trade Acceptance
 - Similar to a BA except it is drawn on, and accepted by, a buyer (importer).
 - Often used by importers to secure financing from a bank

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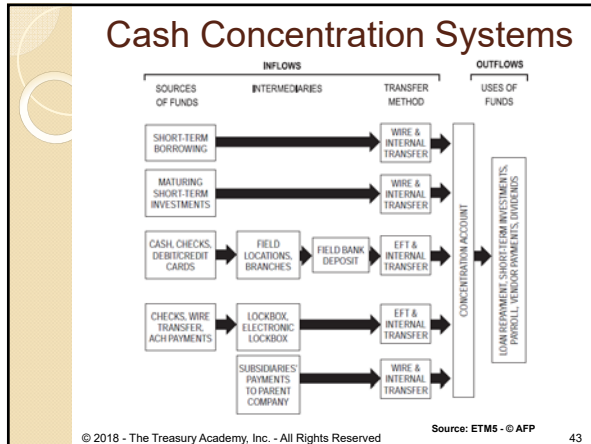
Other International Trade Terms

- Barter
 - Involves the direct exchange of goods or services between two end users without the exchange of money. It is most frequently used when funds cannot be repatriated.
- Countertrade
 - A method of payment used by companies that do not have access to sufficient hard currencies (internationally traded currencies) to pay for imports from other countries
- Trading Companies
 - Trading companies are used when an exporter (seller) sells products at a discount to an export trading company, which then resells the products internationally

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Domestic Concentration of Funds

- Two frequently used concentration systems in U.S.
 - EDT: Electronic Depository Transfer
 - Wire Transfer
- Assume the following:
 - ACH Cost = \$1.00; Wire Cost = \$10.00
 - Opp Cost = 3.5%; 1-day speed-up with wire




$$\begin{aligned}
 \text{Min. Transfer} &= \frac{\text{Wire Cost} - \text{ACH Cost}}{\left[\text{Days Accelerated} \times \left(\frac{\text{Opportunity Cost}}{365 \text{ Days}} \right) \right]} \\
 &= \frac{\$10.00 - \$1.00}{\left[1 \text{ Day} \times \left(\frac{0.035}{365 \text{ Days}} \right) \right]} = \frac{\$9.00}{\left[1 \times (.00009589) \right]} = \$93,858
 \end{aligned}$$

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Cash Concentration & Pooling Systems

- Global Concentration of Funds
 - Physical pooling
 - Notional pooling
 - Bank overlay structure
- Cash Concentration Systems (U.S.)
 - Over-the-counter/Field deposit systems
 - Remote deposit capture (RDC)
 - Virtual vault services
 - Cash concentration system configuration
 - Size and geographic distribution of collection system
 - Transfer alternatives to concentrating bank
 - Branch footprint of banking network

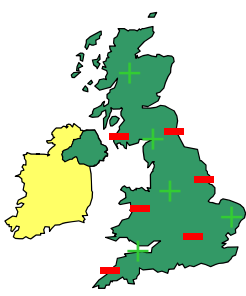


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Notional Pooling



- Balances are offset notionally, preserving integrity of accounts
- No concentration
- No commingling
- Interest on the net pool balance is debited or credited to master account
- Some countries do NOT allow notional pooling

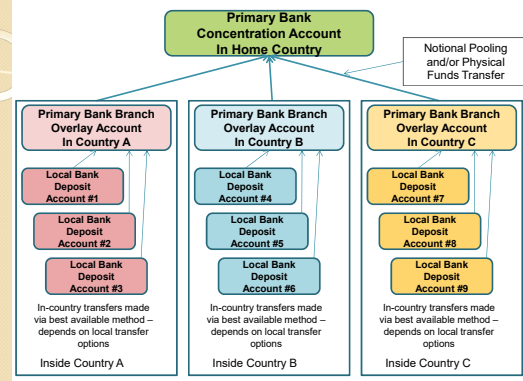
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Pooling Comparison

NOTIONAL POOLING		PHYSICAL POOLING
Interest is earned/paid as bank interest.	COMPENSATION	Must use arm's length rate (or market), track loans, and allocate interest.
Can provide tax efficiency.	TAX	Withholding taxes can apply to intercompany loans.
Is highly complex due to involvement of banks and multiple jurisdictions.	COMPLEXITY	Greater transparency generates less regulatory concern.
Can be implemented across multiple currencies.	APPLICABILITY	Must be done on a currency-by-currency basis.
Is restricted in many countries.	AVAILABILITY	Is widely available and most common form of pooling.

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Bank Overlay Structure



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Session Wrap-up
Session 11: Disbursements,
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- *What did we learn in this session?*
- *What topics do we need to learn more about?*



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End of This Session

We will reconvene at 9:00 am Tomorrow.

The topic will be:

[Review & Practice Exam](#)
Final Session for Course

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