Lecture 7 Cash and Account Receivable

Dove Limited

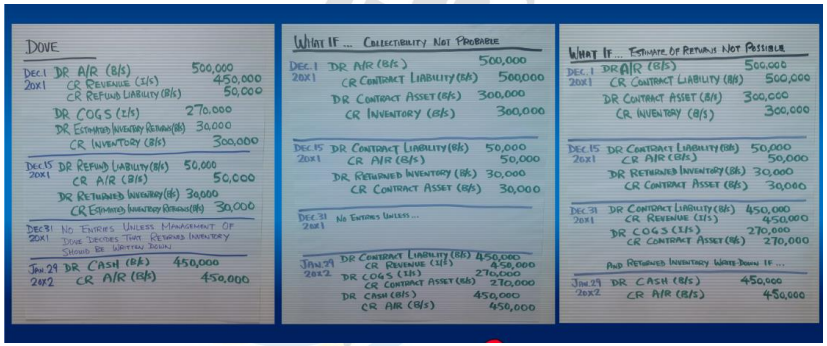
collectability not a problem

Dove Limited (Dove) enters into a contract to sell merchandise inventory to Evergreen Company (Evergreen) for $500,000 with a 60-day credit period. Evergreen is a longtime customer of Dove and Evergreen is well-known in the industry for its strong credit history.

Dove's records show that the cost of the merchandise is $300,000. The terms of the contract give Evergreen full rights to return any inventory item within a 30-day period after the date of delivery.

Dove delivers the full shipment of the merchandise to Evergreen on December 1, 20X1. Dove uses the expected value method and estimates the amount of return to be 10% of the delivered merchandise.

On December 15, 20X1, Evergreen returns 10% of the original shipment to Dove and the returned items are received by Dove on the same day. On January 29, 20X2, Evergreen wires a cash payment of $450,000 to Dove to settle the outstanding balance of the purchase.



Cash Equivalent 现金等价物

- Defined as "short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value."
- Original maturity is generally three months or less
- Typical examples: treasury bills, money-market funds, commercial paper (Guaranteed Investment Certificates – GICs)

Restricted cash

- minimum cash balances maintained by a corporation in support of existing borrowings
- not available for use by the corporation, but the bank can use the restricted cash

Bank Overdrafts 透支

- Overdrafts occur when cheques are written in excess of the cash account balance
- Overdrafts are reported as current liabilities (often reported as accounts payable)
- In general, bank overdrafts should not be offset against the Cash account
- However, bank overdrafts may be offset against available cash in another account if both accounts are at the same bank

Cash chequing 800 cheque 1000
0 bank overdraft 200 current liability

cash chequing 800 cheque 1000
saving 1000
cash 1000-200=800

Impairment of Accounts Receivable

Requires estimating the accounts or the amounts that are expected to be uncollectible
Estimate Dr bad debt expense ? ? Cr AFDA ? ?

Percentage-of-sales Approach (Income Statement Approach)

- At month end, management estimate the bad debt expense as a percentage of current month's sales

Bad debt expense = % * credit sale

Dr cash 20000
Dr AR 10000
Cr Sale Revenue 30000

Net AR 画 AR 和 AFDA T account 求

Percentage-of-Receivables Approach

- Using past experience, management estimates the percentage of outstanding receivables that will be uncollectible—aging schedule

Ending AFDA = % * ending AR

bad debt expense 画 AFDA 的 T account 倒回去求

Example：the company has beginning AFDA 500 beginning AR 2000， credit sale this year 50000, collected 30000 AR estimated 1% credit sale uncollectible, what is bad debt expense this year and what is Net AR? Bad debt expense= 1%*50000=500
Dr bad debt expense 500 Cr AFDA 500

Dr AR 50000
Cr Sale revenue 50000
Dr cash 30000
Cr AR 30000

Net AR= Ending AR – Ending AFDA
= 22000-1000=21000

AR

Dr	Cr
Beg 2000	
50000	30000
End 22000	

AFDA

Dr	Cr
	Beg 500
	500
	End 1000

Example：the company has beginning AFDA 500 beginning AR 2000， credit sale this year 50000, collected 30000 AR, use aging method and determine 3000 AR will not be collected what is bad debt expense this year and what is Net AR?

Ending AFDA=3000
\
Net AR= Ending AR – Ending AFDA
= 22000-3000=19000

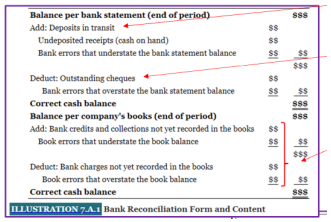
Dr bad debt expense ? ? 2500 Cr AFDA ? ? 2500

AFDA

DR	CR
	Beg 500
??	2500
	End 3000

Bank Reconciliation

… from our Textbook



Balance per bank statement (end of period)		$$$
Add: Deposits in transit	$$	
Undeposited receipts (cash on hand)	$$	
Bank errors that understate the bank statement balance	$$	$$
		$$$
Deduct: Outstanding cheques	$$	
Bank errors that overstate the bank statement balance	$$	$$
Correct cash balance		$$$
Balance per company's books (end of period)		$$$
Add: Bank credits and collections not yet recorded in the books	$$	
Book errors that understate the book balance	$$	$$
		$$$
Deduct: Bank charges not yet recorded in the books	$$	
Book errors that overstate the book balance	$$	$$
Correct cash balance		$$$

ILLUSTRATION 7.A.1 Bank Reconciliation Form and Content

Note Receivable

- Interest bearing
- Have a stated rate of interest *or*

- Zero-interest bearing (or non-interest bearing)
  - Interest amount is the difference between the amount borrowed and the face amount

- Example 7.7: On March 14 an accounts receivable of $1,000 is exchanged for a 6%, six-month note. What journal entries would Prime Corporation make to record the substitution and payment of the note?

DR Note receivable 1000
Cr AR 1000

Dr cash 1060
Cr note receivable 1000
Cr interest income 60

Example 7.8 | Accounting for Non–Interest-Bearing Note Receivable

Facts Assume that the president of Ajar Ltd. borrowed money from the company on February 23, 2020, and signed a promissory note for $5,000 repayable in nine months' time. Assume an interest rate of 8% is appropriate for this type of loan. Instead of borrowing $5,000 and repaying this amount with 8% interest added at the maturity date, the president receives only $4,717 on February 23.

Instructions

How should Ajar account for the difference between the $4,717 borrowed and the $5,000 repaid?

Date	Description	Debit	Credit
23-Feb	Notes Receivable	4,717	
	Cash		4,717
23-Nov	Cash	5,000	
	Notes Receivable		4,717
	Interest Income		283
	($4,717 × 8% × 9 over 12)		

Long-term Notes and Loans Receivable

- Long-term notes and loans receivable are recognized at fair value – that is, the present value of the future cash flows

Example 7.9: Assume that Bigelow Corp. lends Scandinavian Imports $10,000 in exchange for a $10,000, three-year note bearing interest at 10% payable annually. The market rate of interest for a note of similar risk is also 10%.

FV 10000 N=3 PMT 1000 I=0.1 PV?? PAR PV=FV

Date	Description	Debit	Credit
	Notes Receivable	10,000	
	Cash		10,000
	(Issuance of the note)		
	Cash	1,000	
	Interest Income		1,000
	($10,000 × 10%)		

Interest-bearing notes at a discount
Assume that Morgan Corp. makes a loan to Marie Co. and receives in exchange a $10,000, three-year note bearing interest at 10% annually. The market rate of interest for a note of similar risk is 12%.

FV=10000 i=0.12 PMT=10000*10%=1000 N= 3 PV=9520

Effective interest method

Description	Debit	Credit
Notes Receivable	9,520	
Cash		9,520
Cash	1,000	
Notes Receivable	142	
Interest Income		1,142

Interest income= PV * market rate=9520*0.12=1142
Year 2 Dr Cash 1000
Dr Note receivable 159
Cr interest income= （9520+142）* 12%=1159

Straight line

Description	Debit	Credit
Notes Receivable	9,520	
Cash		9,520
Cash	1,000	
Notes Receivable	160	
Interest Income		1,160

PV=9520 FV=10000 Total discount = 10000-9520=480 480/3=160

Interest-bearing notes at a premium
Assume that Morgan Corp. makes a loan to Marie Co. and receives in exchange a $10,000, three-year note bearing interest at 10% annually. The market rate of interest for a note of similar risk is 9%.

Dr note receivable 10253
Cr cash 10253
Dr cash 1000 PMT= FV* stated rate
Cr interest income 10253*9%=922.77
Cr note receivable 77.23

Example 7.11 | Discount Amortization Schedule—Effective Interest Method

Facts Jeremiah Company receives a three-year, $10,000, zero-interest-bearing note, and the related present value with a market interest rate of 9% is $7,721.80.

Instructions

Prepare a three-year discount amortization and interest income schedule for Jeremiah's three-year note receivable and the related journal entries to record (a) interest income at the end of Year 1 and (b) receipt of payment of the note at maturity.

Solution

Schedule of Note Discount Amortization
Effective Interest Method
0% Note Discounted at 9%

	Cash Received	Interest Income	Discount Amortized	Carrying Amount of Note
Date of issue				$ 7,721.80
End of Year 1	$–0–	$ 694.96[a]	$ 694.96[b]	8,416.76[c]
End of Year 2	–0–	757.51	757.51	9,174.27
End of Year 3	–0–	825.73[d]	825.73	10,000.00
	$–0–	$2,278.20	$2,278.20	

[a] $7,721.80 × 0.09 = $694.96
[b] $694.96 – 0 = $694.96
[c] $7,721.80 + $694.96 = $8,416.76 or $10,000 – ($2,278.20 – $694.96) = $8,416.76
[d] Includes $0.05 adjustment for rounding

a. Interest income at the end of the first year using the effective interest method is recorded as follows:

Notes Receivable	694.96	
Interest Income ($7,721.80 × 9%)		694.96

		Straight-line		Effective interest	Effective interest
Date	Description	Debit	Credit	Debit	Credit
Year 1	Notes Receivable	759.40		694.96	
	Interest Income		759.40		694.96
Year 2	Notes Receivable	759.40		757.51	
	Interest Income		759.40		757.51

Derecognition of a Receivable

Accounting for Transfer of Receivables

Conceptually, basic accounting issue:

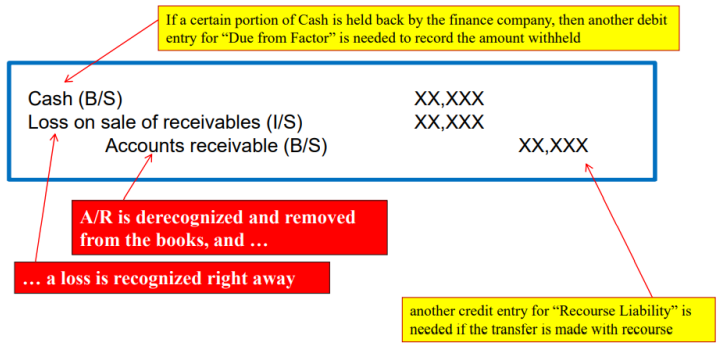
Should the transfer be accounted for as a SALE or as a SECURED BORROWING?

Under IFRS, this accounting issue is addressed and covered within a bigger topic:

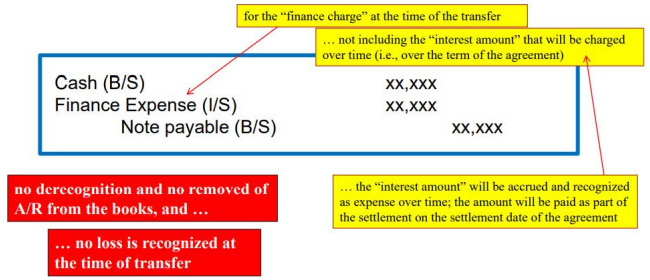
Whether and when a financial asset should be derecognized

Relevant standard is IFRS 9, effective January 1, 2018

If the transferred receivables are to be derecognized, the transfer is accounted for as a SALE



If the transferred receivables are not to be derecognized, the transfer is accounted for as a SECURED BORROWING



Kermode Merchandising Limited

On December 20, 20X1, Kermode Merchandising Limited (KML) sold $750,000 of accounts receivable to ABC Financing Limited (ABC) on a with-recourse basis. The settlement date of the agreement is March 20, 20X2. ABC assessed a finance charge of 2% of the amount of accounts receivable and also retained an amount equal to 5% of accounts receivable to cover probable adjustments. ABC will collect the receivables directly from KML's customers. KML estimated that the fair value of the recourse obligation was $25,000. KML has a December 31 year end. KML has correctly determined that this transaction should be accounted for as a sale.

Required:

(a) Prepare the appropriate journal entry for KML on December 20, 20X1 to record the above transaction.

(b) Prepare the appropriate journal entry for KML on March 20, 20X2 to record the settlement of the above transaction with the assumption that the actual recourse turns out to be exactly $25,000.

Transfer of receivables accounted for as a SALE

Dec.20 20X1	DR Cash (B/S)	697,500	
	DR Due from Factor (B/S)	37,500	
	DR Loss on Sale of Receivable (I/S)	40,000	
	CR Accounts Receivable (B/S)		750,000
	CR Recourse Liability (B/S)		25,000

$750,000 x (100% – 2% – 5%) = $697,500
$750,000 x 5% = $37,500
($750,000 x 2%) + $25,000 = $40,000

Mar.20 20X2	DR Cash (B/S)	37,500	
	CR Due from Factor (B/S)		37,500
	DR Recourse Liability (B/S)	25,000	
	CR Cash (B/S)		25,000

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Transfer of receivables accounted for as a SECURED BORROWING

Dec.20 20X1	DR Cash (B/S)	585,000*	
	DR Finance Expense (I/S)	15,000**	
	CR Note Payable (B/S)		600,000

*$600,000 – (750,000 x 2%) = $585,000
**$750,000 x 2% = $15,000

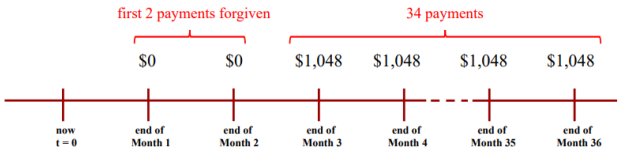
Dec.31 20X1	DR Interest Expense (I/S)	1,085*	
	CR Interest Payable (B/S)		1,085

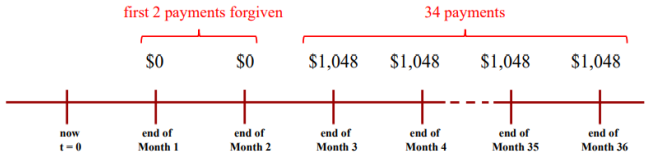
*$600,000 x 6% x 11/365 = $1,085

Mar.20 20X2	DR Note Payable (B/S)	600,000	
	DR Interest Payable (B/S)	1,085	
	DR Interest Expense (I/S)	7,915*	
	CR Cash (B/S)		609,000

*$600,000 x 6% x 3/12 – $1,085 = $9,000 – $1,085 = $7,915

HQ Ltd. (HQ) purchased a used truck from Trans Auto Sales Inc. (Trans). HQ paid a $4,200 down payment and signed a note that calls for 36 payments of $1,048.00 at the end of each month. The appropriate interest rate on notes with comparable level of risk is 5%. As an incentive for entering into the contract, Trans has agreed to forgive the first two payments under the lease.





You should be able to confirm that the present value of the above note is $32,884.28

Use your financial calculator

PV at end of Month 2 for the 34 payments:
FV = 0
PMT = 1,048
N = 34
I = 5 ÷ 12 = 0.41667
PV = ? (PV = 33,158.89)

PV now at t = 0 for the 34 payments:
FV = 33,158.89
PMT = 0
N=2
I = 5 ÷ 12 = 0.41667
PV = ? (PV = 32,884.28)

or

PV at t = 0 for all 36 payments:
FV = 0
PMT = 1,048
N = 36
I = 5 ÷ 12 = 0.41667
PV = ? (PV = 34,967.25) ---------- (1)

PV at t = 0 for the first 2 payments:
FV = 0
PMT = 1,048
N=2
I = 5 ÷ 12 = 0.41667
PV = ? (PV =2,082.97) ---------- (2)

PV now at t = 0 for the 34 payments
= (1) – (2)
= 34,967.25 – 2,082.97
= 32,884.28

Let's prepare the amortization table for this note

Step 1: set up the payment periods in this column, i.e., by months in this case

Step 2: always start the first $ amount with the Present Value (PV) here

Step 3: determine the per period discount rate, = 5% ÷ 12

Step 4: calculate the per period effective interest income = PV x the per period discount rate

Step 5: obtain the per period $ amount payment, using information about the note

Step 6: determine the principal portion of the payment

Step 7: determine the ending balance for this period

Effective interest method

1-month period ending	Carrying Amount of note, Beg. of period (1)	Interest Income (Effective Interest Method) (2)= (1) x (5%/12)	Cash Received at end of period (3)	Principal portion (4)=(3)-(2)	Carrying Amount of note, End of period (5)=(1)-(4)
Month 1	32,884.28	137.02	0.00	-137.02	33,021.30
Month 2	33,021.30	137.59	0.00	-137.59	33,158.89
Month 3	33,158.89	138.16	1,048.00	909.84	32,249.05
Month 4	32,249.05	134.37	1,048.00	913.63	31,335.42
Month 5	31,335.42	130.56	1,048.00	917.44	30,417.98
:	:	:	:	:	:
:	:	:	:	:	:
Month 35	2,082.94	8.68	1,048.00	1,039.32	1,043.62
Month 36	1,043.62	4.38	1,048.00	1,043.62	0.00

last period ending balance = current period beginning balance, THEN REPEAT ALL STEPS

total interest income over the full 36-month period should be the same for the effective interest method and for the straight-line method

if the straight-line method had been used under ASPE, the interest income would be ($1,048 x 34 – $32,884.28) ÷ 36 = $76.33 every month