## CHAPTER 10 and 11- Reporting and Analyzing Liabilities

Liabilities: obligations that result from past transactions that must be settled or paid at some time in the future by the transfer of assets ($ or other) or services.

## CURRENT LIABILITIES

- will be paid within one year from Y/E (or operating cycle if longer)
- types of current liabilities include:
  - **Operating line of credit /credit margin** (bank account is negative)
  - **Accounts (trade) payable** (due on inventory purchases)
  - **Notes payable**
  - **Accrued liabilities** (due on expenses -**seen in chap 4)** i.e. **insurance payable, interest payable, property tax payable, GST and TPS payable, salaries payable, employee deduction payable, income tax payable….**
  - **Provisions; for warranties, product recall, restructuring, ….**are recorded when they result from a past event, are probable and can be estimated (can also be NON-current ; + ARO)
  - **Current portion of long-term debt** - A JE is not required to recognize this classification (just a SFP reporting requirement).
  - **Deferred revenue** (if service/good will be delivered in less than 1 year) (seen in chap 4)

Tantramar Management Ltd. owns land and a building in Regina. YE is December 31. Tantramar receives its property tax bill for the calendar year of $6,000 on March 1, and it is due to be paid on May 31.

| | | | |
|---|---|---|---|
| March 1 | Property Tax Expense ($6,000 x 2/12) | 1,000 | |
| | Property Tax Payable | | 1,000 |
| | *(10 months are not payable yet)* | | |
| May 31 | Property Tax Payable | 1,000 | |
| | Property Tax Expense ($6,000 x 3/12) | 1,500 | |
| | Prepaid Property Tax ($6,000 x 7/12) | 3,500 | |
| | Cash | | 6,000 |
| Dec. 31 | Property Tax Expense (7 x 500) | 3,500 | |
| | Prepaid Property Tax | | 3,500 |

Pepitone does an accrual of $100,000 payroll on which it withholds taxes from its employees' wages and salaries:

| | | | |
|---|---|---|---|
| March 7 | Salaries and Wages Expense | 100,000 | |
| | CPP Payable | | 4,950 |
| | EI Payable | | 2,100 |
| | Income Taxes Payable | | 20,427 |
| | United Way Payable | | 2,445 |
| | Union Dues Payable | | 667 |
| | Wages Payable | | 69,411 |
| | Employee Benefits Expense | 12,465 | |
| | CPP Payable | | 4,950 |
| | EI Payable | | 2,940 |
| | Worker's Compensation Payable | | 575 |
| | Vacation Pay Payable | | 4,000 |

Normally payroll deductions must be remitted no later than the 15th day of following month.

Setthawiwat Corporation from the March 25 cash register reading shows sales of $10,000, GST of $500 and PST of $800. The Corp also purchased an asset for $8,000 + taxes (refundable)

| | | | | |
|---|---|---|---|---|
| March 25 | Cash | 11,300 | | |
| | Sales | | 10,000 | |
| | GST Payable ($10,000 x 5%) | | 500 | |
| | PST Payable ($10,000 x 8%) | | 800 | |
| | Asset | 8,000 | | |
| | GST receivable ($8,000 x 5%) | 400 | | |
| | PST receivable ($8,000 x 8%) | 640 | | |
| | Cash | | 9,040 | |
| Remittance | | | | |
| | GST Payable ($10,000 x 5%) | 500 | | |
| | PST Payable ($10,000 x 8%) | 800 | | |
| | GST receivable ($8,000 x 5%) | | 400 | |
| | PST receivable ($8,000 x 8%) | | 640 | |
| | Cash | | 260 | (net amount) |

Setthawiwat Corporation sold a product for 1,000 $ with a one –year warranty. Estimated costs are 100$.

| | | | | |
|---|---|---|---|---|
| March 25 | Cash | 1,000 | | |
| | Sales | | 1,000 | |
| At time of sale or AJE at Y/E | | | | |
| | Warranty expense | 100 | | |
| | Provision for warranty | | 100 | |
| At time of repairs | Provision for warranty | 90 or 110 | | |
| | Cash /Parts | | 90 or 110 | |

At Y/E provision will be re-evaluated and AJE will be recorded if necessary.

ABC Corporation does quarterly provisional tax payments of $ 20,000. So 4 times:

| | | | |
|---|---|---|---|
| Income tax payable or Prepaid tax | | 20,000 | |
| Cash | | | 20,000 |

At Y/E: tax is calculated: amount due is $110,000 and payment is made

| | | | |
|---|---|---|---|
| Income tax expense | 110,000 | | |
| Income tax payable or Prepaid tax | | 80,000 | |
| Cash | | 30,000 | |

HSBC Bank agrees to lend $100,000 on March 1, 2014, if Williams Ltd. signs a $100,000, 6%, four-month note maturing on July 1 (interest payable at maturity). YE is March 31.

| | | | |
|---|---|---|---|
| March 1 | Cash | 100,000 | |
| | Notes Payable | | 100,000 |
| March 31 | Interest Expense ($100,000 x 6% x 1/12) | 500 | |
| | Interest Payable | | 500 |
| July 1 | Interest Expense | 1,500 | |
| | Interest Payable ($100,000 x 6% x 3/12) | | 1,500 |
| | Notes Payable | 100,000 | |
| | Interest Payable | 2,000 | |
| | Cash | | 102,000 |

## RATIOS

**Current ratio or working capital ratio:** Current assets / Current liabilities
**Working capital** = Current assets - Current liabilities = $ (not a ratio)
**Quick ratio** = Quick assets ( cash+ ST investments+ A/R) / Current liabilities
**A/P turnover ratio:** COGS / Average A/P = x times
**A/P payment period**: 365/ turnover = y days

## LONG-TERM LIABILITIES

- obligation that is expected to be paid after one year or longer.
  - may be unsecured or secured. EX: **mortgage (note), bond** (debenture, convertible, callable), **commercial paper**…
- often repayable in a series of periodic payments (instalments) and paid monthly, quarterly, semi-annually, or at another defined period. Each instalment payment consists of:
  (1) interest on the unpaid balance of the loan,
  (2) a reduction of loan principal.

  Instalment payments generally take one of two forms:
  (1) fixed principal payments plus interest (fixed or floating rate)
  (2) blended principal and interest payments (fixed rate)

On Jan 1. Belanger Ltée. issues (borrows) a $120,000, 7%, five-year note payable. The terms provide for equal monthly instalment payments of $2,000 ($120,000 ÷ 60 periods) on the first of each month, plus interest of 7% on the outstanding principal balance.

| | | | |
|---|---|---|---|
| Jan. 1 | Cash | 120,000 | |
| | Notes Payable | | 120,000 |
| Feb. 1 | Interest Expense | 700 ($120,000 x 7% x 1/12). | |
| | Notes Payable | 2,000 | |
| | Cash | | 2,700 |

Belanger Ltée. issues a $120,000, 7%, five-year note payable. The terms provide for equal monthly instalment payments of $2,376.

| | | | |
|---|---|---|---|
| Jan. 1 | Cash | 120,000 | |
| | Notes Payable | | 120,000 |
| Feb. 1 | Interest Expense | 700($120,000 x 7% x 1/12). | |
| | Notes Payable | 1,676 | |
| | Cash | | 2,376 |

**BONDS**

- A **bond** (certificate) is a form of interest-bearing note often traded on stock exchanges. The **contractual (CR)** or **nominal**/or **stated fixed interest rate** determines the amount of interest to pay to the bondholders. Stated as an annual rate and bond interest is paid semi-annually calculated on **the principal** / **Face / Par /Maturity value**.

- **ISSUING BONDS:**
  **Issue Price of Bonds = MV = PV** (discounted at MR) **of FCF** (determined with CR)
  MV = market value = how much lender is willing to lend (pay ) for the bond.
  PV = present value
  FCF = future cash flows (payments of principal and interest payments)
  MR =market interest rate is the rate investors' demand for lending their money (will = **effective rate** when there is no transaction costs)
  CR = contractual rate or nominal rate

The PV of $1,000,000, 5%, Candlestick Inc. bonds is (assume a MR of 5%)

| | |
|---|---|
| Present value of $1,000,000 received in 10 periods | |
| $1,000,000 × 0.78120 (with tables) or calculator (*n* = 10, *i* = 2.5%) | $ 781,200 |
| Present value of $25,000 (FV received for each of 10 periods | |
| $25,000 × 8.75206 (with tables) or calculator (*n* = 10, *i* = 2.5%) | 218,800 |
| Present value (issue price) of bonds = MV at issuance | $1,000,000 |

- If CR= MR , bonds sell **at par** (Face Value)
- If CR< MR, bonds sell at a **discount** or at a price less than 100% of face value.
- If CR> MR, bonds sell at a **premium** or at a price more than 100% of face value.

**Issuing bonds at Face Value**—Candlestick Inc. issued $1 million of 5-year, 5% bonds dated January 1, 2014 at 100 or par (100% of FV). Interest is payable semi-annually on January 1 and July 31.

| | | | |
|---|---|---|---|
| Jan. 1 | Cash | 1,000,000 | |
| | Bonds Payable | | 1,000,000 |
| July 1 | Bond Interest Expense (ER x CV) | 25,000 | |
| | Cash (CR X FV) | | 25,000 |
| Dec. 31 | Bond Interest Expense | 25,000 | |
| | Bond Interest Payable | | 25,000 |

**Issuing bonds at a discount-** On January 1, 2014, Candlestick Inc., sells $1 million, 5-year, 5% bonds at a market (effective) interest rate of 6%, with interest payable on July 1 and January 1. Using PV tables, we (the market, the lender, the bond holder) calculate that the bond will sell for $957,345.

| | |
|---|---|
| Present value of $1,000,000 received in 10 periods | |
| $1,000,000 × 0.74409 (*n* = 10, *i* = 3%) | $744,090 |
| Present value of $25,000 received for each of 10 periods | |
| $25,000 × 8.53020 (*n* = 10, *i* = 3%) | 213,255 |
| Present value (issue price) of bonds = MV on Jan 1 | $957,345 |

Using calculator (in 2015 NOBODY uses tables anymore!!!)

| | | | | |
|---|---|---|---|---|
| Jan. 1 (per IFRS) | Cash | | 957,345 | |
| | Bonds Payable | | | 957,345 |
| *OR Per book (not updated)* | *Cash* | *957,345* | | |
| | *Bonds payable* | | | *1,000,000* |
| | *Discount* | *42,655* | | |

*Note: the premium (or discount) ARE NOT recorded ore reported separately (anymore)*

July 1 **Using ER method**:

| | | |
|---|---|---|
| Bond Interest Expense ($957,345 x 6% x 6/12) | 28,720 | |
| Bonds Payable (or Discount) | | 3,720 |
| Cash ($1,000,000 x 5% x 6/12) | | 25,000 |

CV = $961,065 ($957,345 + $3,720) on July 1. CV will continue to increase until, at maturity = face value.

**Using SL method** (per ASPE).

| | | |
|---|---|---|
| Bond Interest Expense (total of payment+ amort) | 29,266 | |
| Bonds Payable (or Discount)(42,655/5 x1/2)) | | 4,266 |
| Cash ($1,000,000 x 5% x 6/12) | | 25,000 |

Dec 31 **Using ER method**:

| | | |
|---|---|---|
| Bond Interest Expense ($961,065 x 6% x 6/12) | 28,832 | |
| Bonds Payable or Discount | | 3,832 |
| Bond Interest Payable | | 25,000 |

**Using SL method**

| | | |
|---|---|---|
| Bond Interest Expense (total of payment+ amort) | 29,266 | |
| Bonds Payable (or Discount) (42,655/5 x1/2) | | 4,266 |
| Cash ($1,000,000 x 5% x 6/12) | | 25,000 |

**Issuing bonds at a premium-** Assume the Candlestick Inc. bonds described before are sold at a market (effective) interest rate of 4%.

| | |
|---|---|
| Present value of $1,000,000 received in 10 periods | |
| $1,000,000 × 0.82035 (*n* = 10, *i* = 2) | $ 820,350 |
| Present value of $25,000 received for each of 10 periods | |
| $25,000 × 8.98259 (*n* = 10, *i* = 2) | 224,565 |
| Present value (issue price) of bonds = MV on Jan 1 | $1,044,915 |

| | | | | |
|---|---|---|---|---|
| Jan. 1 | Cash | | 1,044,915 | |
| | | Bonds Payable | | 1,044,915 |
| | OR | | | |
| | Cash | | 1,044,915 | |
| | | Bonds Payable | | 1,000,000 |
| | | Premium on bond | | 44,915 |
| July 1 | **Using ER** | | | |
| | Bond Interest Expense ($1,044,915 x 4% x 6/12) | | 20,898 | |
| | Bond Payable or Premium | | 4,102 | |
| | | Cash ($1,000,000 x 5% x 6/12) | | 25,000 |

The CV = $1,040,813 ($1,044,915 - $4,102). The CV will continue to decrease until, at maturity= face value.

| | | | | |
|---|---|---|---|---|
| Dec 31 | Bond Interest Expense ($1,040,813 x 4% x 6/12) | | 20,816 | |
| | | Bond Payable or Premium | 4,184 | |
| | | Bond Interest Payable | | 25,000 |
| | **Using SL** | | | |
| | Bond Interest Expense | | 20,508 | |
| | Bond Payable or Premium | | 4,492 | |
| | | Cash ($1,000,000 x 5% x 6/12) | | 25,000 |
| Dec 31 | Bond Interest Expense | | 20,508 | |
| | Bond Payable or Premium | | 4,492 | |
| | | Cash ($1,000,000 x 5% x 6/12) | | 25,000 |

**Issuing zero-coupon bonds**

Assume the Candlestick Inc. bonds with 0 interest are sold at a market (effective) interest rate of 4%.

| | |
|---|---|
| Present value of $1,000,000 received in 10 periods | |
| $1,000,000 × 0.82035 ($n$ = 10, $i$ = 2) | $ 820,350 |
| Present value of $0 received for each of 10 periods | |
| Present value (issue price) of bonds = MV on Jan 1 | $820,350 |

JE are the same as Bonds issued at Discount (just different numbers).

♦ **BOND RETIREMENTS**

Bonds may be retired (paid) at maturity or before maturity. Bonds that can be retired by the company at a stated dollar amount before they mature are known as **redeemable or callable bonds** or **Retractable** ( at bondholders' option).

**- Retiring bonds at maturity** (CV will be= Face Value)

| | | | |
|---|---|---|---|
| Bonds Payable | | 1,000,000 | |
| | Cash | | 1,000,000 |

**- Retiring bonds before maturity**

- Must :
  (1) update any unrecorded interest expense
  (2) eliminate the carrying amount of the bonds; record the cash paid and recognize the gain or loss on redemption.

- Assume at January 1, 2013 (eighth period), Candlestick, Inc., having sold its bonds at a premium, retires its bonds at 102 after paying the semi-annual interest. The CV of the bonds at the redemption date is $1,009,709. The entry on January 1, 2013 is:

| | | |
|---|---|---|
| Bonds Payable (and premium) | 1,009,709 | |
| Loss on Bond Redemption | 10,291 | |
| Cash ($1,000,000 x 102 % or 1.02) | | 1,020,000 |

Gains (losses) on bond redemption are often reported as Other Expenses or Revenues on the statement of earnings.

## LEASES

Per Principle /Concept/Characteristic of **Substance over form or Economic reality or Fair representation**

**Lease** (contract form) = **Operating** or **Finance** lease i.e. substance= ?
Depends if 1 of 4 criteria is present:
1. automatic or probable (because favourable price) transfer of ownership at end
2. lease for majority of economic life (ASPE states 75%)
3. PV of payments is almost all the FV of asset ( ASPE states 90%)
4. specialized (i.e. unusable for anyone else)

If Operating : No asset no liability just record 9at each payment: Rent exp.
Rent payable or Cash

If Finance: record asset and liability at PVFCF Asset under capital lease (or Leased Asset)
AT SIGNATURE Obligation under capital lease or Lease Obligation

## ASSET RETIREMENT OBLIGATION (ARO)

Estimate and record at time of acquisition of the asset : Ex land 1 M (mortgage) + 100,000 ARC

| | | |
|---|---|---|
| Land | 1,100,000 | |
| Mortgage payable | | 1,000,000 |
| ARC obligation | | 100,000 |

+discussed in LT assets chapter

## EMPLOYEE FUTURE BENEFITS

Defined **contribution** plan (no promise on future pension to employee; employee assumes market risk)

| | | |
|---|---|---|
| Pension exp. | 100,000 (per contract) | |
| Cash or payable (to trustee) | | 100,000 |

Defined **benefit** plan (with promise on future pension to employee; employer assumes market risk)

| | | |
|---|---|---|
| Pension exp. | 120,000 (per actuary) | |
| Cash or payable to trustee | | 120,000 |

(seen in detail in Intermediate accounting)

## RATIOS

**Debt- to- total assets** = total liabilities / total assets.
**Debt-to- Equity** = total liabilities/ SE
**Times Interest earned** = NI + int + Tax (= EBIT) / int exp.