CASH FLOWS AND INCOME MEASUREMENT

Normally cash inflows and cash outflows are closely related to revenues and expenses respectively. On the basis of realization, however, cash inflows and period's revenue may not be recorded in the same accounting period. Some cases for this timing difference include:

- cash received in advance before performance of contract by the seller. This is termed as deferred or unearned revenue. This is first recorded as liability – future sacrifices of economic benefits to provide service to other entities as a result of past transactions. Later, periodical recognition of revenue is made for proportional amount of performance completed. This reduces the associated liability previously recognized.
- performance by the seller is completed or partially completed in advance before the cash collection. This is referred to as accrued revenue. This is the case that earning of revenue occurred without cash collection. Thus, it is recorded as revenue as earned with the related receivables.

In the same way, even if expenses and cash outflows are closely related, they may not be accounted in the same accounting period due to reasons such as:

- Cash paid in advance before incurrence of expenses such as prepaid insurance, prepaid rent, etc. This is termed as deferred expenses or short-term prepayments. Upon payment, this is normally recorded as an asset and probable future economic benefits are anticipated. Later when the costs are consumed or expired, they are recognized as expenses.
- Consumption of resources or services before the cash outlay. This is the case of accrued expense where it is recorded as an expense when incurred along with the related liability.

Income Measurement Approaches

Based upon the size, nature of companies and the intention as to how to treat revenues and expenses, there are three different income measurement approaches:

1) The Accrual Basis of Accounting
2) The Cash Basis of Accounting
3) The Modified Cash Basis of Accounting.

1. The Accrual Basis of Accounting

The accrual basis of accounting measures the entity's accomplishments and resource sacrifices during a period. It is mainly based on the matching principle and generally governed by the Accounting Principles in that the accrual basis of accounting is based on the realization of revenues and incurrence of expenses, and the matching of revenues realized and costs expired (expenses). To put it in a nut shell, revenues are recognized when earned and expenses are recognized when incurred, regardless to the timing of receipts and payments.

As far as the accrual basis of accounting follows the accounting principles advance collections from customers will be treated as liabilities and the advance payments to other entities are considered as assets. By the same reason the prepaid expenses are treated as assets than expenses. For example; the owner of the house you rented would record an income event on the day your rent comes due (you owe it to him). He records an expense event when the fee owed to the rental agent comes due for your apartment that month (he owes it to the agent)

2. The Cash Basis of Accounting

The cash basis of accounting records revenue in accounting books when cash is collected. By the same logic this approach records expenses when cash is paid. Thus in cash-basis accounting, revenues and expenses are also

called cash receipts and cash payments respectively. This fact normally leads to the conclusion that cash-basis accounting does not recognize promises to pay or expectations to receive money or service in the future, such as payables, receivables, and prepaid expenses. For example, when you pay your rent, the owner of the house would record an income event at the time he/she receives your payment. The owner of the house would subsequently record an expense event when he/she pays the rental agent their fee for your apartment. It is the accounting method used by most individuals, and by some businesses that have limited payables or receivables or when the time lags between the initiation of the transaction and the cash flow is very short. Thus, this model produces net operating cash flow, which is the difference of cash receipts and cash disbursements during a reporting period from transactions related to providing goods and services.

Net operating cash flow is very easy to understand and all information required is to measure it is factual. Also, it certainly relates to a variable of critical interest to investors and creditors. What would be better in helping to predict future cash flows from selling products and services than current cash flows from these activities? Remember that the company will be able to provide a return to investors and creditors only if it can use the capital provided to generate a positive operating cash flow. However, there is a major drawback to using the current period’s operating cash flow to predict the future operating cash flow. Over the life of the company net operating cash flow definitely is the variable of concern. However, over short periods of time operating cash flows may not be indicative of the company’s long run cash generating ability (that is its ability to generate positive net operating cash flow in the future.) In addition to this, Cash-basis accounting fails to meet accounting principles requirements because it does not adhere to the following two accounting principles:

- **Revenue recognition principle** - revenue should be recognized when it is realized (e.g. a credit sale)
- **Matching principle** - revenue should be matched to the expense if possible (e.g. sales to CGS)

3. The Modified Cash Basis of Accounting

The modified cash basis of accounting is a mixture of cash basis and accrual basis of accounting. This method of accounting is appropriate for service rendering enterprises including law firms, private hospitals, advertising agencies and public accountants. Under this method expenditures having an economic life of more than one year are capitalized as assets and depreciated or amortized over the future years. Prepayments of expenses are deferred and deducted only in the year to which they apply, while expenses paid after the year of incurrence (accrued expenses) are deducted only in the year paid. For a merchandising firm (where sale and purchase of merchandise are significant) sales and cost of goods sold are determined under accrual basis. Thus, for merchandising enterprise, the gross profit under modified cash basis is equal to gross profit under accrual basis.

FINANCIAL ACCOUNTING I
Ch. 1 Cash Flows and Income Measurement

- Measurement of Income (Operating Results or Financial Performance / Progress)

Accounting Basis	Timing of Recognition	
	Revenue	Expense
Accrual Basis	When Earned	When Incurred

Cash Basis	When Received	When Paid
Modified Cash Basis	Mixed	Mixed

- Components of income for current period under cash and accrual basis of accounting

Revenues		**CBA**	**ABA**	**Remark**
1	Earned and Collected in CYR	✓	✓	
2	Earned but not Collected in CYR		✓	Accrued Revenues @ EYR
3	Previous Earnings Collected in CYR	✓		Accrued Revenues @ BYR
4	Collected but Unearned in CYR	✓		Unearned Revenues @ EYR
5	Previous Collections Earned in CYR		✓	Unearned Revenues @ BYR
Expenses				
1	Incurred and Paid in CYR	✓	✓	
2	Incurred but Unpaid in CYR		✓	Accrued Expenses @ EYR
3	Incurred Previously but Paid in CYR	✓		Accrued Expenses @ BYR
4	Previous Payments Incurred in CYR		✓	Prepaid Expenses @ BYR
5	Paid but not Incurred in CYR	✓		Prepaid Expenses @ EYR

- Restatement/Conversion Procedures

Acct Basis				**Direct Method**				
CBA	Net Income	xx	=	Cash Inflows	xx	-	Cash Outflows	xx
	± Adjustments	± xx		± Adjustments	± xx		± Adjustments	± xx
ABA	Net Income	xx	=	Revenues Earned	xx	-	Expenses Incurred	xx

CBA **ABA**

For Both Direct & Indirect	± Accrued Revenues	+Accrued Revenues @ EYR	**OR**	- Decrease in Accrued Revenues
		-Accrued Revenues @ BYR		+Increase in Accrued Revenues
For Both Direct & Indirect	± Unearned	+Unearned Revenues @ BYR	**OR**	+Decrease in Unearned Revenues
		-Unearned Revenues @		-Increase in Unearned

	Revenue	EYR		Revenues
For Direct but the Reverse for Indirect	± Accrued Expenses	+Accrued Expenses @ EYR	**OR**	+Increase in Accrued Expenses
		-Accrued Expenses @ BYR		- Decrease in Accrued Expenses
For Direct but the Reverse for Indirect	± Prepaid Expenses	+Prepaid Expenses @ BYR	**OR**	- Increase in Prepaid Expenses
		-Prepaid Expenses @ EYR		+Decrease in Prepaid Expenses

- A cash or modified cash basis of accounting might be used in the following situations:

a. A company that is primarily interested in cash flows (for example, a group of physicians that distribute cash basis earnings for salaries and bonuses)
b. A company that has a limited number of financial statement users (small, closely held company with little or no debt)
c. A company that has operations that are relatively straightforward (small amounts of inventory, long-term assets, or long-term debt).

Example 1

Act Higher Clinic maintains the accounting records of Act Higher Clinic on a cash basis. During 2015, Act Higher Clinic collected Br.142, 600 from her patients and paid Br.60, 470 in expenses. At January 1, 2015, and December 31, 2015, she had accounts receivable, unearned service revenue, accrued expenses, and prepaid expenses as follows. (All long-lived assets are rented.)

	January 1, 2015	December 31, 2015
Accounts receivable	Br. 11,250	Br. 15,927
Unearned service revenue	2,840	4,111
Accrued expenses	3,435	2,108
Prepaid expenses	1,917	3,232

Instructions

Prepare a schedule that converts Act Higher Clinic's "excess of cash collected over cash disbursed" for the year 2015 to net income on an accrual basis for the year 2015.

Solution

Act Higher Clinic
Conversion of Cash Basis to Accrual Basis
For the Year 2015

Excess of cash collected over cash disbursed (Br.142,600 – Br.60,470)	Br.82,130
Add increase in accounts receivable (Br.11,250 – Br.15,927)	4,677
Deduct increase in unearned service revenue (Br.2,840 – Br.4,111)	(1,271)
Add decrease in accrued expenses (Br.3,435 – Br.2,108)	1,327
Add increase in prepaid expenses (Br.1,917 – Br.3,232)	1,315
Net income on an accrual basis	Br.88,178

Alternate solution:

Act Higher Clinic
Conversion of Income Statement Data
from Cash Basis to Accrual Basis
For the Year 2015

	Cash Basis	Adjustments		Accrual Basis
		Add	Deduct	
Collections from customers:	Br.142,600			
–Accounts receivable, Jan. 1			Br.11,250	
+Accounts receivable, Dec. 31		Br.15,927		
+Unearned service revenue, Jan. 1		2,840		
–Unearned service revenue, Dec. 31			4,111	

Service revenue				Br.146,006
Disbursements for expenses:	60,470			
–Accrued liabilities, Jan. 1			3,435	
+Accrued liabilities, Dec. 31		2,108		
+Prepaid expenses, Jan. 1		1,917		
–Prepaid expenses, Dec. 31			3,232	
Operating expenses				57,828
Net income—cash basis	Br. 82,130			
Net income—accrual basis				Br. 88,178

Example 2

NET Corp. maintains its financial records on the cash basis of accounting. Interested in securing a long-term loan from its regular bank, NET Corp. requests you to convert its cash-basis income statement data to the accrual basis. You are provided with the following summarized data covering 2014, 2015, and 2016.

	2014	2015	2016
Cash receipts from sales:			
On 2014 sales	Br.290,000	Br.160,000	Br. 30,000
On 2015 sales	–0–	355,000	90,000
On 2016 sales			408,000
Cash payments for expenses:			
On 2014 expenses	185,000	67,000	25,000
On 2015 expenses	40,000[a]	170,000	55,000
On 2016 expenses		45,000[b]	218,000

[a]Prepayments of 2015 expenses.
[b]Prepayments of 2016 expenses.

Instructions

i. Using the data above, prepare abbreviated income statements for the years 2014 and 2015 on the cash basis.

ii. Using the data above, prepare abbreviated income statements for the years 2014 and 2015 on the accrual basis.

Solution

(a)

NET Corp.
Income Statement (Cash Basis)
For the Year Ended December 31,

	2014	2015
Cash receipts	Br.290,000	Br.515,000
Cash payments	225,000	282,000
Net income	Br. 65,000	Br.233,000

(b)

NET Corp.
Income Statement (Accrual Basis)
For the Year Ended December 31,

	2014	2015
Revenues*	Br.480,000	Br.445,000
Expenses**	277,000	265,000
Net income	Br.203,000	Br.180,000

*2014: Br.290,000 + Br.160,000 + Br.30,000 = Br.480,000
2015: Br.355,000 + Br.90,000 = Br.445,000
**2014: Br.185,000 + Br.67,000 + Br.25,000 = Br.277,000
2015: Br.40,000 + Br.170,000 + Br.55,000 = Br.265,000

Example 3

A summary of operating results for Glory Company for 2014 is presented below.

Cash collected from customers ----------Br 466,000
Cash paid for merchandise suppliers ---------- 268,200
Cash paid for operating expenses---------- 79,400

The following data were taken from comparative balance sheets prepared on the accrual basis of accounting.

Accounts	End of Period Dec.31,2013	Dec. 31, 2014
Accounts receivable	Br.52400	Br. 48600
Inventories	75000	72100
Short term prepayments	4100	9500
Accounts payable (merchandise suppliers)	32000	37400
Accrued salaries	2800	3200
Acc. Dep.(There were no disposal of plant assets during 2008)	50000	74000

Instructions

Prepare an income statement for Glory Company for 2014 under:

a. The accrual basis accounting, and
b. The modified cash basis accounting where by operating expenses (other than depreciation) are computed on the cash basis accounting. Glory's income is taxed at 45%.

Solution

GLORY CO.
Income statement
For the period ended on December 31, 2014

	Accrual Basis	Modified Cash Basis
Sales [=466,000+48,600-52,400]	Br.462,200	Br.462,200
Cost of Goods Sold:		
Inventories, Jan. 1	Br.75,000	Br.75,000
Net Purchases [=268,200+37,400-32,000]	273,600	273,600
Cost of Goods Available for Sale	348,600	348,600
Less: Inventories, Dec. 31	72,100	72,100
Cost of Goods Sold	276,500	276,500
Gross Profit	185,700	185,700
Operating Expenses-AB [=79,400+4,100-9,500+3,200-2,800+ (74,000-50,000)]	98,400	
Operating Expenses-MCB [=79,400+ (74,000-50,000)]		103,400

Income before taxes	87,300	82,300
Income taxes (45%)	39,285	37,035
Net income	Br. 48,015	Br. 45,265