Analyzing Operating Activities
### Economic Income
- Equals net cash flows + the change in the present value of future cash flows
- Includes both recurring and nonrecurring components—rendering it less useful for forecasting future earnings potential

### Permanent Income
- Also called sustainable earning power, or sustainable or normalized earnings
- Estimate of stable average income that a company is expected to earn over its life
- Reflects a long-term focus
- Directly proportional to company value
Income Measurement

Concepts

- Based on accrual accounting
- Suffers from measurement error, arising because of accounting distortions

**Accounting Income consists of:**
- Permanent Component--the recurring component expected to persist indefinitely
- Transitory Component--the transitory (or non-recurring) component not expected to persist (Note: The concept of economic income includes both permanent and transitory components.)
- Value Irrelevant Component--value irrelevant components have no economic content; they are accounting distortions
Income Measurement

Two main components of accounting income:
Revenues (gains)
Expenses (losses)
Revenues and Gains

- **Revenues** are earned inflows or prospective inflows of cash from operations*
- **Gains** are recognized inflows or prospective inflows of cash from non-operations**

* Revenues are expected to recur
**Gains are non-recurring
Expenses and Losses

- **Expenses** are incurred outflows, prospective outflows, or allocations of past outflows of cash from operations.
- **Losses** are decreases in a company’s net assets arising from non-operations.

Expenses and losses are resources consumed, spent, or lost in pursuing revenues and gains.
Two major income dimensions:

1. operating versus non-operating
2. recurring versus non-recurring*

*Motivated by need to separate permanent and transitory components
Alternative Income Statement Measures

- **Net income**—widely regarded as “bottom line” measure of income
- **Comprehensive income**—includes most changes to equity that result from non-owner sources; it is actually the bottom line measure of income; is the accountant’s proxy for economic income
- **Continuing income**—excludes extraordinary items, cumulative effects of accounting changes, and the effects of discontinued operations from net income*
- **Core income**—excludes all non-recurring items from net income

*Often erroneously referred to as “operating income”
## Operating versus Non-Operating Income

**Operating income**—measure of company income as generated from operating activities

Three important aspects of operating income:
- Pertains only to income generated from operations
- Focuses on income for the company, not simply for equity holders (means financing revenues and expenses are excluded)
- Pertains only to ongoing business activities (i.e., results from discontinued operations is excluded)

**Non-operating income**—includes all components of net income excluded from operating income

Useful to separate non-operating components pertaining to financing and investing
## Income Measurement

### Analysis

### Determination of Comprehensive Income—sample company

<table>
<thead>
<tr>
<th>Description</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td></td>
</tr>
<tr>
<td>Other comprehensive income:</td>
<td></td>
</tr>
<tr>
<td>+/- Unrealized holding gain or loss on marketable securities</td>
<td></td>
</tr>
<tr>
<td>+/- Foreign currency translation adjustment</td>
<td></td>
</tr>
<tr>
<td>+/- Postretirement benefits adjustment</td>
<td></td>
</tr>
<tr>
<td>+/- Unrealized holding gain or loss on derivative instruments</td>
<td></td>
</tr>
</tbody>
</table>

**Comprehensive income**
Non-Recurring Items

- Extraordinary items
- Discontinued segments
- Accounting changes
- Restructuring charges
- Special items
Non-Recurring Items

Extraordinary Items

Criteria
Unusual in nature
Infrequent in occurrence

Examples
Uninsured losses from a major casualty (earthquake, hurricane, tornado), losses from expropriation, and gains and losses from early retirement of debt

Disclosure & Accounting
Classified separately in income statement
Excluded when computing permanent income
Included when computing economic income
Non-Recurring Items

**Discontinued Operations**

**Accounting is two-fold:**

- Income statements for the current and prior two years are restated after excluding the effects of discontinued operations.
- Gains or losses from the discontinued operations are reported separately, net of tax*.

*Reported in two categories: (i) operating income or loss from discontinued operations until the measurement date, and (ii) gains and losses on disposal.*
Non-Recurring Items

Discontinued Operations

For analysis of discontinued operations:
• Adjust current and past income to remove effects of discontinued operations
  ▪ Companies disclose this info for the current and past two years
  ▪ For earlier years:
    ➢ Look for restated summary info or other voluntary disclosures
    ➢ Take care when doing inter-temporal analysis
• Adjust assets and liabilities to remove discontinued operations
• Retain cumulative gain or loss from discontinued operations in equity
Non-Recurring Items

First Type of Accounting Change is

Accounting Principle Change—involves switch from one principle to another

Disclosure includes:

• Nature of and justification for change
• Effect of change on current income and earnings per share
• Cumulative effects of retroactive application of change on income and EPS for income statement years
Non-Recurring Items

Accounting Changes

Second Type of Accounting Change is Accounting Estimate Change—
involves change in estimate underlying accounting

• Prospective application—a change is accounted for in current and future periods

• Disclose effects on current income and EPS
Non-Recurring Items

Analyzing Accounting Changes

- Are cosmetic and yield no cash flows
- Can better reflect economic reality
- Can reflect earnings management (or even manipulation)
- Impact comparative analysis (apples-to-apples)
- Affect both economic and permanent income
  - For permanent income, use the new method and ignore the cumulative effect
  - For economic income, evaluate the change to assess whether it reflects reality
Non-Recurring Items

Special Items--transactions and events that are unusual or infrequent

Challenges for analysis

- Often little GAAP guidance
- Economic implications are complex
- Discretionary nature serves earnings management aims

Two major types

- Asset impairments (write-offs)
- Restructuring charges
Non-Recurring Items

Asset Impairment—when asset fair value is below carrying (book) value

Some reasons for impairments
- Decline in demand for asset output
- Technological obsolescence
- Changes in company strategy

Accounting for impairments
- Report at the lower of market or cost
- No disclosure about determination of amount
- No disclosure about probable impairments
- Flexibility in determining when and how much to write-off
- No plan required for asset disposal
- Conservative presentation of assets
Non-Recurring Items

Special Items

**Restructuring Charges**—costs usually related to major changes in company business

Examples of these major changes include:
- Extensive reorganization
- Divesting business units
- Terminating contracts and joint ventures
- Discontinuing product lines
- Worker retrenchment
- Management turnover
- Write-offs combined with investments in assets, technology or manpower

Accounting for estimated costs of restructuring program:
- Establish a provision (liability) for estimated costs
- Charge estimated costs to current income
- Actual costs involve adjustments against the provision when incurred
Non-Recurring Items

Earnings Management with Special Charges

(1) Special charges often garner less investor attention under an assumption they are non-recurring and do not persist.

(2) Managers motivated to re-classify operating charges as special one-time charges.

(3) When analysts ignore such re-classified charges it leads to low operating expense estimates and overestimates of company value.
Non-Recurring Items

Analyzing Special Items

**Income Statement Adjustments**

1. Permanent income reflect profitability of a company under normal circumstances
   - Most special charges constitute operating expenses that need to be reflected in permanent income
   - Special charges often reflect either understatements of past expenses or investments for future profitability

2. Economic income reflects the effects on equity of all events that occur in the period
   - Entire amount of special charges is included
Non-Recurring Items

Analyzing Special Items

**Balance Sheet Adjustments**
Balance sheets after special charges often better reflect business reality by reporting assets closer to net realizable values.

Two points of attention
(1) Retain provision or net against equity?
   - If a going-concern analysis, then retain
   - If a liquidating value analysis, then offset against equity

(2) Asset write-offs conservatively distort asset and liability values
Revenue Recognition

Guidelines

Revenue Recognition Criteria

- Earning activities are substantially complete and no significant added effort is necessary
- Risk of ownership is effectively passed to the buyer
- Revenue, and related expense, are measured or estimated with accuracy
- Revenue recognized normally yields an increase in cash, receivables or securities
- Revenue transactions are at arm’s length with independent parties
- Transaction is not subject to revocation
Revenue Recognition

Guidelines

Some special revenue recognition situations are

- Revenue When Right of Return Exists
- Franchise Revenues
- Product Financing Arrangements
- Revenue under Contracts
  - Percentage-of-completion method
  - Completed-contract method
- Unearned Revenue (amount of revenues that are still unrecognized appear in the balance sheet as a liability)
Revenue Recognition

Revenue is important for
- Company valuation
- Accounting-based contractual agreements
- Management pressure to achieve income expectations
- Management compensation linked to income
- Valuation of stock options

Analysis must assess whether revenue reflects business reality
- Assess risk of transactions
- Assess risk of collectibility

Circumstances fueling questions about revenue recognition include
- Sale of assets or operations not producing cash flows to fund interest or dividends
- Lack of equity capital
- Existence of contingent liabilities
Deferred Charges

Costs incurred but deferred because they are expected to benefit future periods

Consider four categories of deferred costs

• Research and development
• Computer software costs
• Costs in extractive industries
• Miscellaneous (Other)
Deferred Charges

Research and Development

Accounting for R&D is problematic due to:

• High uncertainty of any potential benefits
• Time period between R&D activities and determination of success
• Intangible nature of most R&D activities
• Difficulty in estimating future benefit periods

Hence:

• U.S. accounting requires expensing R&D when incurred
• Only costs of materials, equipment, and facilities with alternative future uses are capitalized as tangible assets
• Intangibles purchased from others for R&D activities with alternative future uses are capitalized

*These accounting problems are similar to those encountered with employee training programs, product promotions, and advertising
Deferred Charges

Computer Software Costs

[Note: Accounting for costs of computer software to be sold, leased, or otherwise marketed identifies a point referred to as technological feasibility]

Prior to technological feasibility, costs are expensed when incurred

After technological feasibility, costs are capitalized as an intangible asset
Deferred Charges

Search and development costs for natural resources is important to extractive industries including oil, gas, metals, coal, and nonmetallic minerals.

Two basic accounting viewpoints:

• “Full-cost” view—all costs, productive and nonproductive, incurred in the search for resources are capitalized and amortized to income as resources are produced and sold.

• “Successful efforts” view—all costs that do not result directly in discovery of resources have no future benefit and should be expensed as incurred. Prescribed for oil and gas producing companies.
Employee Benefits

Overview

- Increase in employee benefits supplementary to salaries and wages
- Some supplementary benefits are not accorded full or timely recognition:
  - Compensated absences
  - Deferred compensation contracts
  - Stock appreciation rights (SARs)
  - Junior stock plans
  - Employee Stock Options (ESOs)
Employee Benefits

Employee Stock Options

ESOs are a popular form of incentive compensation—reasons include:

- Enhanced employee performance
- Align employee and company incentives
- Viewed as means to riches
- Tool to attract talented and enterprising workers
- Do not have direct cash flow effects
- Do not require the recording of costs
Employee Benefits

Option Stock Options

Option Facts

• Option to purchase shares at a specific price on or after a future date
• Exercise price is the price a holder has the right to purchase shares at
• Exercise price often set equal to stock price on grant date
• Vesting date is the earliest date the employee can exercise option
• In-the-Money: When stock price is higher than exercise price
• Out-of-the-Money: When stock price is less than exercise price
Two main accounting issues

• Determining Dilution of earnings per share (EPS)
  ➢ ESOs in-the-money are *dilutive securities* and affect diluted EPS
  ➢ ESOs out-of-the-money are *antidilutive securities* and do not affect diluted EPS

• Determining Compensation expense
  ➢ Determine cost of ESOs granted
  ➢ Amortize cost over vesting period
Interest Costs

Interest Defined

**Interest**
- Compensation for use of money
- Excess cash paid beyond the money (principal) borrowed

**Interest rate**
- Determined by risk characteristics of borrower

**Interest expense**
- Determined by interest rate, principal, and time
Interest Costs

Interest Analysis

- Interest on convertible debt is controversial by ignoring the cost of conversion privilege
- Diluted earnings per share uses number of shares issuable in event of conversion of convertible debt
- Analysts view interest as a period cost—not capitalizable
- Changes in a company borrowing rate, not explained by market trends, reveal changes in risk
Income Taxes

Temporary Income Tax Differences

- Differences that are temporary in nature
- expected to reverse in the future
- mainly in the nature of timing differences between tax and GAAP accounting
- accounted for using deferred tax adjustments

Taxable Income ≠ Financial Statement Income
Income Taxes

Income Tax Accounting

- Identify types and amounts of temporary differences and the nature and amount of each type of operating loss and tax credit carryforward
- Measure total deferred tax liability for taxable temporary differences
- Compute total deferred tax asset for deductible temporary differences and operating loss carryforwards
- Measure deferred tax assets for each type of tax credit carryforward
- Reduce deferred tax assets by a valuation allowance
Income Taxes

Income Tax Analysis

- Financial Statement Adjustments
- Present Valuing Deferred Tax Assets and Liabilities
- Forecasting Future Income and Cash Flows
- Analyzing Permanent and Temporary Differences
- Earnings Management and Earnings Quality