

Statistical Thinking For Data Science And Analytics

Creative Accounting

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Three main income and capital measurement systems

- The historic cost accounting system emerged after the 1929 Wall Street collapse
- In the 1960s several alternatives were developed
 - current cost accounting
 - financial capital maintenance (the purchasing power of the financial capital)
 - physical capital maintenance (the physical ability to produce goods and services)
 - exit price accounting

- # Historic cost accounting
- Separation of ownership and control
 - information asymmetry
 - Most critical objective of accounting is accountability - stewardship (conservatism)
 - The income statement is paramount
 - transaction based
 - revenue recognition
 - matching
 - profit measurement

Arguments for historic cost accounting

- Relevant in making economic decisions
- Based on actual, not merely possible, transactions
- Data have been found to be useful
- The best understood concept of profit
- Must guard data against internal modifications
- Profit based on alternatives may not be useful
- Market prices can be supplementary data
- Insufficient evidence to reject it

Criticisms: Objective of accounting

- Stewardship is only a secondary objective
- Providing the decision making needs of users is the primary objective and historic cost data is a failure in this regard
- Historic cost information is
 - not objective
 - can be easily manipulated
 - does not maintain the entity's capital

Criticisms: Information for decision making

- Is irrelevant when evaluating past decisions
- After acquisition, historic cost data is fictional
- Connected to inconsequential measures of capital
- Produces only flawed measures of profit

Criticisms: Basis of historic cost

- The going concern assumption does not justify the use of historic cost accounting
 - many businesses fail
 - no businesses continue indefinitely doing only or at all what they are presently doing
 - all businesses, except those presently existing, cease operations
- All businesses have alternatives and choices going forward

Criticisms: Matching

- Is a practical impossibility
- Is totally arbitrary
- The balance sheet is important
- Resulted in non-assets being classified as assets and non-liabilities being classified as liabilities
- Leads to volatility and smoothing

Criticisms: Notions of investor needs

- Distorts and conceals
- Its goals are ill-conceived
- Creative accounting is commonplace
- Incentives to produce misleading data
- Today, investors pay little attention to historic cost accounting data about a firm

Objective of current cost accounting

- CCA values assets at their current market buying price and profit is determined using matching expense allocations based on the current cost to buy
- Profit is more precisely defined as the change in capital over the accounting period
- Managers are better able to evaluate their past decisions and better use the firm's resources to maximise future profits
- Shareholders, investors and others are able to make better allocations of their resources

Objective of current cost accounting

- Managers will examine
 - the current operating profit
 - the excess of the current value of the output sold over the current cost of the related inputs
 - realisable cost savings
 - increases in the current cost of assets held
 - holding gains/losses
 - realised/unrealised

Financial capital versus physical capital

- Profit is the change in capital
- Holding gains are included in profit under financial capital
- Holding gains are excluded from profit under physical capital

Arguments for and against current cost

- Recognition principle
 - violates the conservatism principle - but actual phenomena
 - are holding gains profits or revaluation adjustments?
- Objectivity of current cost
 - lacks objectivity
- Technological change
 - appears to ignore technological advances

More specific criticisms

- Advocates of historic cost accounting
 - violates the realisation principle; subjectivity of increase
- Comparisons of the results with historic cost
 - industry variations
- Advocates of exit price
 - the logical expression of opportunity cost is the current selling price
 - the arbitrary allocation of expenses is still a problem issue
 - additivity problem exists
 - number of reasons for an asset having value to a business
 - irrelevant to most business decisions
 - physical capital concept fraught with weaknesses

Exit price accounting

- Exit price = selling price = fair market value
- Has two major departures from historic cost accounting:
 - the values of non-monetary assets are selling prices and any changes are included in profit as unrealised gains
 - changes in the general purchasing power of money affect both financial capital and profits

Exit price accounting

- Represents clean surplus accounting
- The income statement explains all of the differences existing between the opening and closing balance sheets

Objective of accounting

- Objective = data for adaptive decision making
- The assumption is that the business world is dynamic and business must adapt to survive
- Firms and those associated with them go into markets to take advantage of opportunities as they arise
- The ability to engage in market transactions is revealed by net financial position (net current market value)
- Ultimately all accounting information users are interested in cash and cash equivalent values
- In the final analysis, the economic survival and performance of a firm depends on the amount of cash it can command

Objective of accounting

Chambers:

...the single financial property which is uniformly relevant at a point of time for all possible future actions in markets is the market selling price or realisable price of any or all goods held.

Arguments for exit price accounting

- Provides useful information
- Provides relevant and reliable information
 - there is one way to determine profit that is superior to all others
 - profit is the difference between capital at two points in time exclusive of additional investments by and distributions to owners
 - to be relevant, information must be useful in the decision models of accounting data users
 - the present selling price is the only item of information that is relevant to all decisions

Arguments for exit price accounting

- Additivity
 - if we use different measurement systems then no practical or commercial meaning can be deduced from the aggregate
 - even if we use historic cost accounting as the sole measurement system, the jumble of historic costs on different dates means we cannot put any meaning on the calculation of net assets or profit
 - exit price accounting does not have this problem

Arguments for exit price accounting

- Allocation
 - the financial statements are allocation free
- Reality
 - references are to the real-world in that every disclosed amount refers to a present, actual market price
 - exchangeability

Arguments for exit price accounting

- Objectivity
 - market prices are relatively more objective than most believe
- A measure of risk
 - can indicate the financial risk of purchasing an asset

Arguments against exit price accounting

- Profit concept
 - does not provide a meaningful concept of profit
 - the critical event does not relate to the performance of the firm
 - does not produce realistic financial reports
- Additivity
 - violates the principle of exclusion of anticipatory calculation that it claims to reject

Arguments against exit price accounting

- The valuation of liabilities
 - valuing liabilities at face value and not market value is internally inconsistent
- Current cost or exit price
 - at what stage of the operating cycle should exit price dominate asset valuation?

Value in use versus value in exchange

- Similar when markets are liquid and efficient
- There are factors common to both
 - market prices are more relevant for decision making
 - additivity and reliability are prime requirements
 - historic cost accounting has too many defects
- They are complements not substitutes
- Value in use assesses long term survival (solvency), value in exchange assesses the ability to adapt in the short term (liquidity)

A global perspective and international financial reporting standards

- Current cost in the United States
 - an experiment but abandoned (1976 -1984)
- Current cost in the United Kingdom
 - implemented but abandoned (1975 – 1985)
- Current cost in Australia
 - recommended but abandoned (1976 – 1980's)

International accounting standards and current costs

- IASB/FASB have agreed that fair value is the best measurement basis (2004)
 - the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction

International accounting standards and current costs

- Historic cost accounting still generally applied
- Distinct movement toward current value systems
- IASB moving toward exit prices (2004)
- But still a mixed valuation approach
- Fair value means – current market entry price, current market selling price, historic cost and discounted future cash flows

There is no mention in the standards of capital maintenance concepts

How is historic cost applied

- Subjectivity is involved in the determination of the acquisition cost of an item
- Thereafter the measurements are even more subjective

Historic cost under attack

- The era of historic cost accounting has ‘ended’
 - it produces irrelevant, unreliable, non-comparable and non-understandable data

A mixed measurement system and international standards

- Market values - exit prices - are implied in the 'fair value' approach in international financial reporting standards
- A lack of a theoretical concept of valuation, capital maintenance and profit measure, has resulted in a still mixed measurement system and a lack of consistency

Issues for auditors

- The mixed measurement model creates misstatement so that auditors struggle to meet one of their primary objectives
 - determining whether the financial statements present a true and fair view

Summary

- Overview of three main measurement systems
- The historic cost system and arguments for and against
- Current cost accounting
- Financial capital versus physical capital
- Exit price accounting
- Value in use and value in exchange
- Global initiatives and fair value accounting
- Issues for auditors

Key terms and concepts

- Historic cost valuation
- Current cost valuation
- Financial capital and physical capital
- Recognition principle
- Exit price valuation
- Adaptive behaviour
- Useful information
- Relevant and reliable information
- Additivity
- Allocation
- Reality
- Objectivity
- A measure of risk
- Value in use and value in exchange

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