Risk in Accounting
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Much of what was said critically years ago, and earlier and since by many others, can still be said today.

Chambers (1969, p. viii)

Abstract

Risk and uncertainty are inherent in the environment and functions of accounting. Accounting reports, systems, norms, and rules help people decide, and also determine how they decide in such environment. Diverse normative theories and descriptions of coping with risk and uncertainty yield different implications for accounting. Chambers was an articulate, forceful, and celebrated proponent of market values, while Ijiri did the same for historical costs. Elements of accounting theory that diverge in their emphases on historical cost versus market values can be linked to the divergence in the theories of risk and decision making. This largely unrecognized link between the conflicting accounting theories and their respective implicit assumptions about risky decisions may help us reconcile, understand and progress beyond the accounting debates of the past century.

Keywords: Chambers, risk and uncertainty, financial reporting, accounting, information for decisions

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1. Introduction

Does it matter if, and how, the accounts of an organization are prepared? Perhaps the fact of their preparation by some reasonably consistent publicly known method is all that matters. Or perhaps the details of how they are prepared, including the methods of measurement and the extent of disclosure, are also important because sharing the method used to prepare them is insufficient. These questions have been the subject of extensive debate in accounting over the past century. Even within the confines of an investors’ perspective (setting others’ interests aside for the moment without doubting their importance), the answers remain unclear.

Single-person businesses benefit from accounting, at least as an aid to memory (Sunder 1997, 1999). In organizations, with the presence of interacting egos, one might argue that any choice of accounting induces counterbalancing adjustments by the individuals to protect their respective interests. However, such adjustments do not necessarily lead to the final outcomes being independent of accounting. On the contrary, accounting determines the nature of interactions and the efficiency of outcomes (Basu et al. 2009a and b).

Given the benefits, and even the necessity of accounting, the extent of disclosure is open to debate for three reasons. First, the specific method used for preparing the report should not matter if the chosen methods is properly disclosed to allow the users the opportunity to make their own adjustments. Second, multiple competing sources of information available to users make up for any deficiencies in the accounting reports. And third, the presumed tendency of security markets to promptly incorporate and reflect in price information relevant to valuation of securities, irrespective of the accounting method used to prepare the report.
All three arguments have been used to discount the importance of choosing one or another method of accounting measurement or disclosure. All three have weaknesses. Even when the method used to prepare a report are disclosed, the users may not have information sufficient for preparing reports under alternative methods. Reports prepared using straight-line method of depreciation, for example, do not contain information sufficient to prepare reports based on accelerated depreciation. It is rare that competing sources of information can fully substitute for accounting reports. In theory, no market can be fully efficient with respect to costly information (Grossman and Stiglitz 1980); in observation, they have not proved to be (Sunder 1992; Malkiel 2003).

Both the content as well as the manner of the preparation of financial reports matter for the functioning of economic systems. This essay examines alternative ways in which accounting serves, or may serve, its function in an environment of risk and uncertainty. With regard to risk, decision criteria under risk, human attitudes towards risk and towards out-of-pocket and opportunity losses and gains, methods of making decisions by individuals vs. groups, and by intuition and deliberation, all vary across individuals and contexts. One should not be surprised that the proposed and practiced solutions for serving the functions of accounting also vary along dimensions such as historical vs. mark-to-market, conservative vs. neutral, and realization vs. anticipation. After a discussion in Section 2 of the environment surrounding accounting decisions, Section 3 discusses risk, decision criteria, human attitudes and methods of decision making. Section 4 links the diversity of accounting methods and proposals to the variations in Section 3. Concluding remarks are given in Section 5.

1. Decisions and Accounting

Decision making and accountability are the two main perspectives on the role of accounting in organizations. They overlap in part, and for the purpose of this essay, implications of both for methods of accounting are the same. In the decision-making framework, accounting is a mechanism to generate and distribute information to help the relevant decision makers, especially the managers and investors, make their respective decisions (Demski 1994; Christensen and Demski 2003). In the accountability perspective, attention shifts to the system as a whole (Ijiri 1975). An organization is a set of contracts among many agents, each contributing negotiated resources in exchange for an entitlement to a share of resources. Accounting is a mechanism that is designed to support and sustain this system of contracts under the tensions of conflicting incentives. It does so by measuring the contributions and entitlements, determining fulfillment of contracts, attracting new participants, and providing a basis for renegotiation of contracts (Sunder 1997).

Almost all decisions are made under risk or uncertainty. An important distinction is made between risk (situations in which the probabilities of various outcomes of a process are known) and uncertainty (in which the probabilities, or even all the possible outcomes, are not known). However, we use the two terms interchangeably in this essay to mean risk, as done in most decision theory. Although they are highly relevant to accounting, we exclude the consideration of Knightian uncertainty or the large worlds from the scope of this essay.

2. Risk and Decisions

Concepts of Risk

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1 See Knight (1921) and the “large worlds” discussed by Savage (1951). Also see Gilboa and Schmeidler’s (2001) case-based decision making, and Binmore (2007) for rational decision making in large worlds.
There are two quite divergent concepts of risk used in business and economics. One is the traditional concept of hazard (the possibility of something bad such as loss, injury, accident, failure, or breakdown, etc.). The other is a more recently formalized concept of risk as dispersion of outcomes introduced by Markowitz (1952), but rooted in Daniel Bernoulli’s proposal from 1738 (in which he tried to rationalize the St. Petersburg Paradox by attributing log utility functions to people). In various parts of economics, finance and accounting one or the other of these two concepts is used, and sometimes they are mixed together without explicit recognition of their differences.

**Risk as Hazard**

In plain English, risk means hazard—exposure to loss, injury, accident, failure or breakdown. To be at risk means to be vulnerable to loss or damage, from which one may need protection. Its origins in French (risqué), and Italian (risco, riscio, rischio, and riscare meaning “run into danger”) point to its unwelcome nature. Risk is context specific, but always denotes the possibility of an undesirable, even feared outcome. Aversion to risk in this sense follows from its definition; it is not meaningful for one to prefer risk without switching to a different meaning, to which we return shortly.

In his analysis of circumstances in which equity holders contribute capital, Chambers uses the hazard meaning of risk:

> “Failure to preserve the money capital of a company is not of itself culpable. Losses may, but do not necessarily, lead to changes in directorates, they do not give rise to legal action on the part of equity holders, for it is understood that the capital contributions have been made at risk.” (Chambers 1957 (1969, p. 98), italics added).

When investors contribute equity capital, they put it at risk; they do so with the knowledge that they may not only get no dividends, but may lose their capital as well. In insurance literature, this meaning of risk is labeled *pure* risk, as distinguished from *speculative* risk that involves some chance of gain but no chance of loss (Williams 1966, p. 577).

**Risk as Dispersion of Outcomes**

The dispersion concept of risk became common in equity literature in finance and in some parts of economics, especially since Von Neumann and Morgenstern’s (1944) *Games and Economic Behavior* and Markowitz’ (1952) portfolio theory. Greater the dispersion of outcomes, as measured by a statistic such as variance, standard deviation, or range, and so on, the more risky the process in this sense. For example, if the outcomes of two processes are normally distributed, one with mean 10 and standard deviation 5 and the other with mean 20 and standard deviation 15, the latter is more risky in this sense. In his discussion of holding monetary and non-monetary assets Chambers uses the dispersion concept of risk:

> “Now, the risks of holding monetary assets (cash and claims) and non-monetary assets are different in kind. The risks of holding monetary assets and liabilities are risks that their purchasing power or redemption costs may vary in real terms. All persons may be assumed to be equally well informed of these risks, but no person may, on the basis of any present knowledge, quantify their future extent or their incidence in time. One may speculate on the probability that prices will rise or fall, and arrange one’s stocks accordingly; but the outcome is not predictable. The risks of holding non-monetary assets
are risks that the incomes they yield may vary due to changes in the commodities markets.” (Chambers 1961(1969 p. 503)).

There can be special cases where the ranking of two processes by these two concepts of risk is the same. Chambers’ example of leverage affects both hazard and dispersion risk of a business:

“Further still, information on the present composition of its liabilities influences the expectation of safety of investment and the expectation of gains by way of dividends, interest and shifts in security prices. For example, other things being equal, a firm with a high debt to equity ratio and a low current ratio will be considered to be a more risky investment, requiring a higher dividend yield, than a firm with a low debt to equity ratio; it will be considered to be more risky both because the fixed interest charges take up a large proportion of gross earnings, making net income volatile under shifts in the amount of gross earnings, and because the firm’s capacity to adapt its operations to shifts in business is restricted by the extent of its borrowings and the poverty of its net working capital. …” (Chambers 1967 (1969 p. 601)).

However, in general, the hazard and dispersion concepts of risk are different (see Friedman et al. 2014, Chapter 5), and rank decision alternatives differently. Lower dispersion risk does not necessarily imply lower hazard risk, and vice versa.

Decision Criteria under Risk

How do we make decisions when the future is risky? Several ways of organizing our understanding of decision making under risk suggests three better-known criteria—expected value, expected utility, and maximin.

Expected value is the average outcome calculated by weighting each possible outcome by its subjective or objective probability, and can be used as a basis for choosing among alternative risky prospects. This method can be used only if each outcome can be assigned a numerical value on an interval or ratio scale. When outcomes are nominal (e.g., red, green, or blue) or ordinal (e.g., low, medium, and high), this method is not applicable because there is no meaningful way of calculating the average outcome.

Expected utility replaces outcome quantities (measured in money, time, weight, etc.) by a non-linear function of these quantities measured on an interval or ratio scale. It is calculated as the expectation of this function using the same probabilities as above. It is based on the idea that the desirability of an outcome may be the chosen non-linear function of outcome quantities. For example satisfaction from eating two apples may not be equal to twice the satisfaction from eating one apple; it would be less if satiation sets in, more in the case of a feeding frenzy. Satisfaction derived from possessing a matched pair of shoes may be more than twice as great as the satisfaction of having only one of the shoes from the pair.

The maximin compares the available alternatives on the basis of their minimum (least desired or worst) outcomes; it chooses the option whose least desirable outcome is better than the least desirable outcomes of the available alternatives.

Note that the expected value and expected utility criteria treat the gains as well as losses in the outcome of a process symmetrically. While expected value is neutral to dispersion of outcomes, expected utility depends on dispersion of outcomes because of curvature of utility.
functions. Since the expected utility of concave (convex) functions is lower (higher) than the expected outcome, they are considered risk averse (risk loving) under the dispersion concept of risk. Maximin criterion, with its focus on the worst of all outcomes, is closer to the hazard concept of risk.

Individual Attitudes towards Risk

If we use the hazard concept, aversion to risk follows from its definition. It is not meaningful to conceive of a person who prefers risk in this sense. However, when risk is thought of as dispersion of outcomes of a process or decision, it is possible that different individuals may have different attitudes to risk. For example, it has been argued that the utility value of a (numerically defined) outcome for some people may be concave. If such a person uses expected utility criterion for making decisions, prospects with greater dispersion of outcomes are less attractive, and in this sense, the person is averse to (dispersion) risk. Other things being equal, outcomes with greater dispersion are less desirable. On the other hand, if the utility value is described by a convex function of numerical outcomes, when combined with expected utility criterion for choosing, the person may be said to prefer (dispersion) risk because a process with more dispersed outcomes is more desirable.

In spite of a great deal of theoretical and empirical work in this field over the past seven decades, it has not yet been possible to estimate the risk attitudes of individuals with sufficient reliability to predict individual choices out-of-sample and out-of-context (see Friedman et al. 2014, Chapter 4). Nor has it been possible to explain macro-level data drawn from insurance, credit, equity, labor, real estate and foreign exchange markets by attributing some reasonably stable risk attitudes to populations in various societies (see Friedman et al. 2014, Chapter 5). Of course, absence of evidence is not evidence of absence; the possibility that such evidence will be forthcoming one day cannot be ruled out entirely, even if the hopes of success dim over time.

Given the unsettled nature of what we can claim reliably to know about individual or group attitudes to the dispersion concept of risk, it would be imprudent for accountants to adjust their reports for this kind of risk. Adjustment of reports to hazard measure of risk is plausible, and as argued in Section 4, some features of accounting practice are attributable to accountants’ attempts to be user friendly.

Individual and Group Decisions

Decisions can be evaluated and made by individuals or groups after considering their individual and/or collective consequences. Even for individuals, consequences of decisions cannot always be ranked easily. If the consequences are spread over time, we can discount the resource flows to collapse the vector of consequences to a scalar present value to facilitate comparisons; if the consequences are risky, we can use one of the simplifying criteria (expected value, expected utility, or maximin for example, discussed in an earlier section) to render the prospects comparable.

Desirability of a course of action from the point of view of an individuals is neither a necessary nor a sufficient for its attractiveness for the group as a whole (see Ehrig et al. 2015). The individual and group decisions and criteria used for obtaining high levels of efficiency often diverge. For example, Arrow’s Impossibility Theorem (1951) shows that individuals following reasonably rational rules of behavior may yield circular collective decisions made by majority voting. In the case of public goods (Hardin 1968) and the prisoner’s dilemma game (1950 unpublished work of Merrill Flood and Melvin Dresher at RAND), individually rational choice is
collectively irrational. On the other hand, Gode and Sunder (1993) show that individual traders acting randomly within their budget constraints can yield collectively efficient resource allocations in competitive markets. In other words, individual and collective rationality have no mapping in either direction. In Section 4, we return to the implications of this problem for choosing accounting methods that might facilitate better economic outcomes.

Role of Time in Decisions

Models of decision-making almost always leave out time as a free parameter. In a generic or relative sense, usually denoted by subscript \( t \), time is included in our models. An interval of \( 2t \) is twice as long as an interval of \( t \). But it is relative time not real time, in the sense that \( t \) could stand for a second, a day, a year, or a millennium, without affecting the validity of the underlying relationship in which it appears as a subscript. The problem is that a functional dynamic in discrete time that is valid on a day-to-day basis, is not necessarily valid on a week-to-week or month-to-month basis.

To see this point, consider two simple illustrative examples: suppose the time series of an accounting variable (e.g., income \( E \)) is given by one of the following two laws of motion.

\[
E_{t+1} = E_t + a. \tag{1}
\]

If \( t \) in (1) stands for days, the equivalent relationship where \( t \) stands for weeks is given by

\[
E_{t+1} = E_t + b, \tag{2}
\]

where \( b = 7a \). The functional form of this relationship remains unchanged when the interpretation of subscript \( t \) changes from days to weeks.

Now consider a second example in which \( t \) is measured in days and weeks respectively:

\[
E_{t+1} = 0.5(E_t + E_{t-1}) + a, \tag{3}
\]

\[
E_{t+1} = 0.5(E_t + E_{t-1}) + b. \tag{4}
\]

In this second example, there is no value of constant \( b \) with which (4) will yield the same weekly earnings that (3) would yield by projecting daily earnings. In other words, the time series specification is not generally neutral to selection of the scale on which time is measured.

Besides this mathematical problem in assuming neutrality of time scale, one should also keep in mind its psychological dimension. For example, suppose that a person’s expectation of a win by a baseball team follows a first order adaptive process on a game-to-game basis, with consecutive games played a few days apart. Neutrality of time assumes that the same first order adaptive relationship will apply on a season-to-season basis, albeit with a different adaptive parameter. Observational data do not support such an assumption.

Intuitive and Deliberative Behavior

We decide and act in at least two different modes: intuition and deliberation (Simon 1987). A soccer player uses intuition to kick the ball; there isn’t enough time to calculate the angle, force and timing, and even if there were enough time, data needed for the calculation and instruments to implement the solution arrived at from the calculation, are unlikely to be available. Multiplying five digit numbers is a deliberative act for almost everyone. There are many tasks in which we start out in a deliberative mode—e.g., learning to drive a car or counting to one hundred—and move to intuition as repeated experience renders deliberation superfluous. However, there are also some tasks in which deliberation or some mix of intuition and deliberation persists even after much experience. In addition to intuition and deliberation, one might add the emotional mode of decision-making known to most of us.
Uses of financial reports involve both intuition and deliberation, and possibly emotion, in varying degrees. Some uses are based on little more than a momentary glance at earnings per share (EPS) or changes in such magnitudes as they flash on rapidly moving news tickers. Other uses may involve formal modeling, careful adjustments, and integration with information from a variety of sources. If accountants prepare their reports for intuitive users, they would not serve their deliberative clientele well. The emotional mode of decision making is likely to be specific to user and context, and accountants would find it difficult to meet their disparate needs in any satisfactory manner.

Gains and Losses

Human attitudes to gains and losses are not simply mirror images of each other. Beyond gains being desired and losses avoided, human attitudes to gains and losses of equal magnitudes are not symmetrical. Indeed, this asymmetry is inherent to the hazard concept of risk that is based on consideration of losses alone, as well as in curved utility functions (losses being more important for concave and gains being more important for convex functions). On the other hand, the dispersion concept of risk that treats gains and losses symmetrically, is not incorporated into lay meaning of the term and is rarely used outside some specialized parts of finance and economics literature.

Out-of-pocket and Opportunity Gains and Losses

Humans are known to fret about out-of-pocket costs but are not as concerned about losing an opportunity to earn similar magnitudes. Losing a ten dollar bill from one’s wallet hurts more than forgetting to cash a ten-dollar coupon (that arrived in the mail) during a visit to the grocery store. Sunk costs (that have no bearing on the consequences of any decision alternatives at hand) often exert influence on choices people make (Staw 1976) even though conceptually equivalent opportunity costs do not. Paper losses induce people to try to recover the lost money by taking more chances, but realization of losses appears not to induce such a chance (Imas 2014). On the other hand, there seems to be little difference between the behavior that follows paper and realized gains. How these asymmetrical attitudes to gains vs. losses, and out-of-pocket vs. opportunity magnitudes do, or should, influence preparation of financial reports is relevant to accounting and calls for further analysis.

3. Accounting Uses and Methods

Accounting and financial reports serve diverse audiences, individually, in groups, and as a collective. All participants in an organization (e.g., investors, managers, employees, customers, vendors, government, etc.) use accounting and financial reports to serve their respective individual or group ends, as well as their collective ends to sustain the balance and existence of organizations in which they gainfully participate. They have diverse criteria for making decisions, diverse attitudes, time horizons, modes of decision-making, and attitudes to paper and realized gains and losses, outlined in the preceding section. How might accounting serve its functions in such an environment?

Who should the accountants try to serve, and how? For example, if it is a fact that human beings tend to, when acting by intuition, react differently to out-of-pocket and opportunity losses,

\footnote{\textquotedblleft}We suffer more …when we fall from a better to a worse situation, than we ever enjoy when we rise from a worse to a better.” Adam Smith (1759). Also see Kachelmeier and Shehata (1992).\textquotedblright
one possibility is that accountants try to anticipate this behavior and modify the reports they supply to the users. Or they could leave the behavioral tendencies of the users to be dealt with by others, perhaps the users themselves, and provide facts as they are. What should they do? What do they, in fact, do?

For example, suppose Person A dislikes and distrusts Person B, who in fact is benign. A situation arises in which B’s help will bring great benefit to A and B is willing to help. B’s offer of help is likely to be rejected by A. B has the option of offering assistance in a straightforward fashion, and taking the chance of being rejected. Or B’s help could be offered to A in a disguised form where its source is not disclosed. What should, and does, B do?

Just-Facts Accounting

Offering help in a straightforward manner is analogous to accountants reporting “just the facts, please,” and letting A learn from his error and confusion about B’s intentions through experience over time. This approach has the advantage of being factual, and avoids the chances of creating a new cycle of distrust (after realization of being “fooled” into taking the right action) and misplaced expectations. It may also take many repetitions before A’s confusion is sorted out, and it may never be sorted out, especially when there are few chances of repetition. Not everyone learns from experience, and the lesson learned might be the wrong one. We can call this the factual approach to reporting.

Disguising or modifying the apparent source of help is similar to accountants anticipating the users’ response to their report, and adjusting the report in such a way that the actual user response would be closer to what it would have been in the absence of distrust. This approach requires the accountant to know a great deal more about the users and is difficult to implement in the presence of user heterogeneity. We can call this an anticipatory response to reporting.

Each approach to reporting has its consequences, and arguments for and against it. The factual reporting limits accountants’ role to the well-defined boundaries of objectivity. It leaves any behavioral distortions in decision making to be sorted out through experience, learning and education. Given the inevitable diversity in the tendencies and capabilities of users in processing data and information provided through financial reports, this approach lets the accountants rest in confidence that they have provided the best possible, unbiased solution which is good for everyone who is able, or willing to learn to become able, to process the reports appropriately. Handicaps for the fast rabbits or slow turtles are left outside the domain of accounting.

In his writings, Chambers does not favor accountants distinguishing between reporting of appreciation and decline of asset values. He prefers the factual approach. If writing down assets in reports when market values decline is a good idea, so is writing them up when the market values rise:

“Fourthly, the going concern or continuity concept seems to be invoked to support objections to the writing up of asset values. But it is not reasonable to assert that ‘the writing up of fixed assets has the effect of treating the business as ceasing and starting afresh’. The writing down of fixed assets and shareholders’ equity when earning power has fallen materially is a measure taken to preserve a business unit in the face of changed circumstances; the unit is not considered to cease business and start afresh. The writing up of fixed assets and shareholders’ equity when earning power has risen materially has exactly the same effect and purpose in opposite circumstances.” (Chambers 1957 (1969 p. 98)).
In other words, Chambers prefers that accountants report the current state of affairs as truthfully as possible, and not lean in the direction of conservative estimates of assets and income. If the realization principle is to be used to draw a line between gains that are included in and excluded from income, Chambers would prefer exactly the same criteria to be applied to losses too. His pervasive influence on accounting can be seen in the market-to-market valuation adopted in the pronouncements of the Financial Accounting Standards Board and the International Accounting Standards Board in the recent two decades:

“As investors invest at risk they are not indemnified against loss, however great may be their expectations. But if expectations change they may take their losses and shift their risks. The function of the security market is to facilitate the realization of securities or the conversion of risks of one kind into risks of another kind. It effects a redistribution of risks; but it does not raise the wealth or income of community generally. If some gain, others lose. No less than new investors in existing ventures, existing investors are dependent, for periodical re-assessment of risks, on statements of income and position in current terms.” (Chambers 1961(1969 p. 498)).

Anticipatory Accounting

Anticipatory accounting, on the other hand, can be justified for being more friendly and understanding of human nature. It means modifying the reports, so the human decisions made on the basis of these reports will approximate what might have been done if the human factors involved were absent. Walking against the wind requires some leaning forward to maintain one’s balance. If people fail to maximize their expected wealth because they have difficulty learning to avoid asymmetric attitudes to gains and losses (i.e., if the wind will not go away), it is prudent for accountants to practice conservatism to create the balance.

Consideration of risk plays an important role in a range of human behavior. Risk can be conceptualized as hazard or dispersion of outcomes. Under the dispersion concept it is possible for users to have a variety of attitudes towards risk, including aversion, love, or neutrality. The accountants could seek to serve the risk-averse users by minimizing the variance of errors of measurement in accounting numbers. Lim and Sunder (1991) and Sunder (2008) derive methods for how accountants can minimize the total mean square error of valuation by using a judicious balance between measurement and aggregation errors inherent in accounting.3 In general, the (dispersion) risk minimizing accounting which yields best decisions is neither historical cost nor market-to-market but an intermediate solution in which historical costs are adjusted towards current values for optimally chosen bundles of resources.

Under the hazard concept of risk, where decision makers are focused on avoiding losses and other unpleasant surprises, it is possible to argue that accountants will minimize such surprises if they treat gains and losses asymmetrically in their reports. Lower-of-cost-or market approach to inventories and asset revaluations can be seen in this light. More generally, such approaches are grouped under conservatism. If users of financial reports react more adversely to negative surprises than to positive surprises, accountant may seek to prepare more satisfactory reports by practicing conservatism.

3 Measurement errors arise when the observed magnitudes available to accountants deviate from the true magnitudes; aggregation errors arise when magnitudes are available only for bundles of resources instead of individual resources.
In psychology studies of human behavior, realized and unrealized losses are treated very differently, but the treatment of realized and unrealized gains does not exhibit a comparable disparity. The realization principle—waiting to record revenue until almost all the work necessary to earn the revenue has been performed—also belongs with accounting methods that seek to reduce the risk associated with the reports in the hazard meaning of the term.

4. Concluding Remarks

Financial reports are produced in an environment of risk. For example at the time of a credit sale, identities of the customers who will default on their obligation to pay are unknown. Nor do we know the demand for goods to be produced in a planned factory. How financial reports are, or should be prepared depends on their function, and how the data/information in the reports are processed by their users. In the absence of uncertainty, accurate and factual reports would be the obvious choice. However, under uncertainty, which is almost always the case, what should the preparer do? For example, under what circumstances is it better to include unbiased or biased estimates? To answer this question, accountants must work backwards, i.e., reverse engineer, from how the numbers reported will be used, and what the consequences of bias, or lack thereof, in the numbers included in the report will be.

This paper identifies aspects of accounting practice and regulations that are either explicitly or implicitly based on human behavior under risk or uncertainty, specifically the hazard or dispersion notions of risk. There are special conditions in which the two concepts can yield the same results but in general, they also lead us to support very different methods of accounting. For example, the hazard notion of risk can be linked to lower-of-cost-or-market and conservative accounting practices. But the mark-to-market or current valuation is apparently driven by the dispersion notion of risk. Literature on human behavior reveals evidence of distinctions between the two notions of risk; accounting consequences of this distinction could be usefully added to the discourse in accounting theory.

Chambers clearly and forcefully pointed out the pitfalls of accountants accommodating human cognitive quirks and frailties in preparing their reports. For example he countered the arguments for reducing the inevitable volatility of accounting income through managerial smoothing:

“But there are some, on the other hand, who strongly support the principle of “smoothing” profits and averaging out or disregarding these fluctuations. Of all principles, this is the one of the most vicious; for its effect is non-disclosure. If profits in fact fluctuate, this is a piece of information which an intelligent investor will wish to know; for fluctuating profits are indicative of the risks he will want to take into accounting in bidding for or holding securities. Profit smoothing makes a risky business appear to be much less risky. It makes it possible for a risky business to become more risky still to its ordinary shareholders, for it deludes them into supposing that a higher gearing or leverage is warranted than the underlying variability of income warrants. Profit smoothing enables companies and their managements to go on declaring profits for some time after profits have ceased to be earned. How often this has happened and how often it has deferred the day of reckoning, at great cost to old and new investors, can only be a matter of conjecture. But it is a conjecture with a high degree of probability. (Chambers 1965 (1969 pp. 200-201)).
Chambers prefers that accountants treat the users of their reports as intelligent adults able to handle the facts and not as toddlers to be lulled into sleep with fairy tales. On the other hand, a significant element of paternalism is built into the securities laws as well as other legislation and regulations meant to protect investors and consumers not only from unscrupulous predators, but also from their own inattention and failings. Managerial attempts to shield the investors from shocks may increase, not decrease, the risk they are subjected to:

“Investors invest at risk. But the risks of business are sufficient without supercharging them with unreliable or irrelevant information.” (Chambers 1964 (1969 p. 218)).

Whether, and to what extent, accountants and accounting should try to protect users from their decision-making imperfections remains an open question. Reasonable arguments have been made for insulating accounting in a “just the facts please” approach, as well as for making concessions for known human frailties, especially intuition which does not make optimal use of available information. Chambers (1966) recognized the two sides of the argument, but took a firm and consistent position in favor of the former. He is not willing to introduce imperfections in financial reports to counterbalance the weaknesses in how that information is used, because there would be no end to such accommodation. He thought it better, instead, for accounting to stand firm in its present reporting methods and serve as a beacon to help users make up any deficiencies in decision-making through experience and instruction.
References


