Accounting as simulacrum and hyperreality: perspectives on income and capital

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Abstract

This paper draws on two independent strands of literature — Baudrillard’s orders-of-simulacra theoretic and financial accounting theory — to investigate the ontological status of information in accounting reports. It draws on Baudrillard’s concepts of simulacra, hyperreality and implosion to trace the historical transformations of the accounting signs of income and capital from Sumerian times to the present. It posits that accounting today no longer refers to any objective reality but instead circulates in a “hyperreality” of self-referential models. The paper then examines this conclusion from the viewpoint of recent clean surplus model research and argues that the distinction between income and capital is arbitrary and irrelevant provided the measurement process satisfies the clean surplus relation. Although accounting is arbitrary and hyperreal, it does impart a sense of exogeniety and predictability, particularly through the income calculation. Therefore, it can be relied on for decisions that do have real, material and social consequences. The paper ends with some implications of Baudrillard’s theoretic for accounting, reflections on accounting’s implications for Baudrillard’s theoretic and suggestions for future research.

Keywords: Income; Capital; Derivatives; Earnings forecasts; Clean surplus model; Radical semiotics; Simulacrum; Hyperreality; Implosion; Orders of simulation

1. Introduction

This paper draws on two independent strands of literature—Baudrillard’s orders-of-simulacra theoretic and financial accounting theory—to investigate the ontological status of information in accounting reports. Specifically, it applies some salient features of a theoretic of postmodernity suggested by Baudrillard and the “clean surplus model” proposed by Ohlson and others. We first describe accounting in ancient times (Mattessich, 1987, 1989, 1995) when people saw accounting signs as unequivocal references to “real” physical or social objects or events. We then use Baudrillard’s “orders of simulacra” chronology and his concepts of simulacra, hyperreality and implosion to interpret historically documented changes in accounting’s sign-to-referent relationship and some current accounting conundrums. Our major thesis is that many accounting signs no longer refer to real objects and events and accounting no longer functions according to the logic of transparent representation, stewardship or information economics. Instead, accounting increasingly models only that which is itself a model.

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The paper briefly describes Baudrillard’s chronology of four “eras” of sign-referent relationships in Western society. It then sketches an understanding of the ontological assumptions that underlie the accounting signs of income and capital. Next, it analyzes in Baudrillard’s terms three contemporary accounting issues: accounting for executive stock options, earnings management, and accounting for derivative financial instruments. It concludes that the controversies surrounding these issues stem partly from changes over time in the accounting sign-to-referent relationship.

We then draw on recent accounting research which has examined clean surplus accounting systems. This research is of interest to us because it, like our paper, focuses specifically on understanding the nature of the accounting signs income and capital. The paper finally considers the implications of the analysis for users of financial information and accounting standard-setters. It argues that, while the usefulness of accounting information does not require that standard-setters appreciate the arbitrariness and self-referentiality of accounting signs, such an appreciation may yield benefits in terms of increased speed and efficiency in the standard-setting process.

We selected some of Baudrillard’s ideas to explore why contemporary accounting issues have become so controversial and difficult to resolve for three reasons. First, his perspective is decidedly postmodern and poststructuralist and we agree that “such a period... is the one we are living in” (Eagleton, 1996, p. 20). Second, Baudrillard [as opposed to, say, Foucault (1973), Derrida (1976), Lyotard (1984), or Bataille (1991)] focuses on the changes that have occurred in the past few decades in areas that profoundly affect accounting, namely: language, information technology, communication, and electronic media. Finally, Baudrillard sets out a radical semiotic perspective of the production and consumption of information. We believe that this perspective has potential for motivating new accounting insights beyond those stemming from extant theory such as the informational perspective which (for all the insight it has generated) seems to be at or nearing the mature stage of its research cycle (Beaver, 1996, p. 118).

We conclude that much of today’s accounting information circulates in a Baudrillardian “hyperreality” where time and space implode and accounting signs no longer reflect the material, economic realm but rather precede it or bear no relationship to it. We note that recent advances in financial accounting theory imply that this shift in accounting’s sign-to-referent relationship does not compromise the utility of accounting numbers for valuation purposes. Finally we explore the implications of the changes in the accounting sign-referent relationship for modern day standard setters and for Baudrillard’s theory.

The paper also uses the accounting analysis to interrogate and evaluate Baudrillard’s theoretic. The analysis of the accounting signs of income and capital suggests that Baudrillard’s orders of simulacra are less universally descriptive than he seems to claim and that certain of his other ideas are overblown. We conclude with a methodological caveat and some possibilities for further research.

2. Orders of simulacra

Baudrillard uses his ideas about simulacrum, implosion and hyperreality to propose a radical description of postmodern society. Briefly, simulacrum is a sign, image, model, pretence, or shadowy likeness of something else. Implosion occurs when the boundary between two or more entities, concepts, or realms melts, dissolves or collapses inward and their differences disappear. Hyperreality refers to the current condition of postmodernity where simulacra are no longer associated with any real referent and where signs, images, and models circulate, detached from any real material objects or romantic ideals. “We are now in a new era of simulation in which ... the organization of society according to simulations, codes and models, replaces production as the organizing principle of society” (Baudrillard, 1994a, 118).

Baudrillard’s well-known Disneyland example illustrates these three notions. Disneyland, he con-
tends, is a simulation of “real” America while “real” America is actually much like Disneyland writ large. So, in essence, they are one and the same as the difference between them is negligible or, as he puts it, implodes. The postmodern world is dominated by a shifting scene of imagined figures, mediated by electronic communication devices and gadgetry, which is the “hyperreal”: a domain of self-referential, circulating symbols and implosion of differences, which now is real for the individual. Moreover, Disneyland serves to obscure the fact that the “real adult” world does not exist as such but is only in many respects a childlike, comic book, fantasy order.

2.1. Ontology and epistemology

Ontologically, Baudrillard believes postmodern society to be dominated by the linguistic and textual sphere, which is now more important than the economic (material and production) realm that held sway during the industrial era. In this he follows the “literary turn” or “crisis in representation” (Bertens, 1995) taken for some time now in many of the social sciences and humanities. “Literary turns” means analyzing the phenomenon of interest as a text, discourse, language game, or discursive formation and understanding it for its textual properties and semiotic content (what Baudrillard calls “semiurgic”). In this, he “joined in the semiological revolution which was interpreting all aspects of life as a system of signs” (Kellner, 1989, p. 21). Homo semioticus looms larger today than homo economicus.

Given that language and discourse dominate the nature of being in postmodernity, Baudrillard draws on his radicalization of Saussure’s semiotics for his epistemology.4 Saussure, concerned only with the form of language, identified four elements in his theory of structural semiotics: signifiers (words written or spoken); signifieds (the mind image invoked by each word); signs (one-to-one combinations of unique signifiers with particular signifieds); and referents (the real objects or ideas to which signs refer). Both the sign-to-referent and the signifier-to-signified relationships, Saussure (1959) revealed, are arbitrary, so a sign has no meaning of its own. It has meaning only because it differs from all other signs in its linguistic system.

2.2. Eras of the sign

Baudrillard also pays particular attention to the sign-to-referent relationship but proposes four successive phases or eras of the sign. (He refers to the sign variously as simulacrum, image, and model.) In the first phase, the sign is a reflection of a profound reality. It is a good appearance in the sense that it is a faithful and transparent representation. In the second phase, the sign masks and denatures a profound reality. It is a bad appearance—a distorted or twisted image—which deprives reality of its deep-seated quality.5 In the third phase, the sign masks the absence of any profound reality. Akin to magic, it plays at being an appearance of a reality. Finally, in the fourth phase, the relationship is reversed: the

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4 Baudrillard follows the genealogical epistemology. The genealogical method is, as Mahon (1992, p. 14) puts it “a unique form of critique which recognizes that the things, values, and events of our present experience have been constituted historically, discursively, and practically...it reveals the historical, discursive and practical conditions of existence of these things, values, and events.” The genealogist attempts to expose that constitution and trace and its consequences. So genealogy is a historical inquiry “into the events that have led us to constitute ourselves and to recognize ourselves as subjects of what we are doing, thinking, saying” (p. 82). The critical gesture is to undermine the taken-for-grantedness and legitimacy of the present in order to make it seem just as strange and ephemeral as the past. Genealogy also tends toward periodization. So the genealogist starts with the present, goes back in time until a significant difference in the discursive landscape is located, and then proceeds forward, carefully describing the transformation (eschewing cause-effect speculations) and preserving the discontinuities and connections (Sarup, 1993). The end product is a historical account of the here and now.

5 Baudrillard describes in Simulacra et Simulations (1981, p. 17) the second phase of the image as “...elle est une mauvaise apparition — de l’ordre d’un maléfice.” The English translation reads “In the second, it is an evil appearance—it is of the order of maleficence” (Simulation, 1983, p. 6). We disagree with the translation of “mauvais” as “evil”. In French, the first definition of mauvais is opposé a bon: 1. Qui présente un défaut, une imperfection essentielle; qui a une valeur faible ou nulle (dans le domaine utilitaire, esthétique ou logique). (Source: Micro Robert: Dictionnaire du Français Primordial, Garnier-Flammarion, Paris, 1973.) Thus, mauvais is the opposite of bon or bonne. Baudrillard describes the first phase of the image as “l’image est une bonne appareance” (italics in original). Thus, we read the image in the first phase as a good appearance and the image in the second phase as a bad appearance but not necessarily an evil one.
sign *precedes* reality; it has neither rapport with nor resemblance to any reality; it is pure simulacrum.

Baudrillard (1983a, p. 83) extends his phases of the image scheme into a grand account of successive historical phases of more recent Western civilization. In a typical postmodernist gesture, he also dismisses the modernistic idea that history is a linear progression (albeit with setbacks along the way) towards some utopia. Instead, each new era appears and is only different from, not necessarily better than, its predecessors. These “orders of simulacra,” as he labels them, which followed the Feudal era are:

1. **Counterfeit**, the dominant scheme of the classical period from the Renaissance to the Industrial Revolution; 2. **Production**, the dominant scheme of the Industrial era; and 3. **Simulation**, the reigning scheme of the current phase.

By “order” Baudrillard seems to mean something like Marx’s *mode* of production, Foucault’s (1973) *order* of things (archaeological sites), and Bataille’s (1991) *modus operandi* of the way a particular society consumes its surplus wealth. Each of these share the idea that Western society’s defining sphere (order, mode, archaeological site, or *modus operandi*) has experienced a series of grand eruptions and reformulations of its social, economic and political realms.

3. **Accounting signs**

Baudrillard’s successive phases of the sign provide one framework for interpreting historically documented changes in the meanings of accounting signs. Miller and Napier (1993, p. 631) observe that, “accounting changes in both content and form over time; it is neither solid nor immutable.” In its earliest manifestation, accounting gave clear, transparent signs of a physical and social reality in space–time. As the eras emerged, however, momentous ruptures in accounting mirrored those in society, radically altering the spatial and temporal characteristics of accounting signs. Despite these alterations, we argue, accounting practices strove—and many contemporary, historical-cost accounting standards still strive—to sustain the belief that accounting represents reality in much the same way as it did when it first emerged. We then problematize this belief by focusing on the rifts that occurred in the relationship between the accounting sign and the reality that it allegedly represents. We conclude by showing that, for many of today’s pressing accounting issues, there is no underlying reality to which accounting signs refer.

The idea of accounting as a sign, a faithful representation of physical and social realities in space–time, is pervasive. Indeed, the assertion that historical cost accounting keeps track of resources (a physical reality) under the control of entities (a social reality) is an axiom in virtually every text following Paton and Littleton’s (1940) influential work (Ijiri, 1980). But if Mattessich’s (1987, 1989, 1995) interpretation of Schmandt-Bessarat’s (1984) recent Sumerian archeological evidence is correct, the origin of accounting’s role as a sign of a dual social/physical reality is impressively ancient. We argue that the same sign-function seems to underlie historical cost accounting practices, which struggle to sustain the belief that contemporary accounting represents reality in much the same way as it did for the ancient Sumerians.

3.1. **Pre-historic accounting—reflecting a profound reality**

Mattessich (1987, 1989, 1995) argues that, possibly, the ancient Sumerians had developed a prehistoric form of accounting, complete with debits and credits, to track physical flows of goods and social obligations to pay for them. By 3500 BC, before people knew how to read, write or count, they were making kiln-fired tokens that represented resources such as cows, goats and wheat. Mattessich interpreted each token-shape as an account. Suppose that Zurik, a landowner, placed five cows under the care of Kalem, a farmer. The Kalem-farm was viewed as an accounting entity. Five cow-tokens would be deposited in a clay urn. Mattessich reasoned that the urn served as a crude balance sheet. Just before the tokens were dropped into the urn, they were pressed on its soft, clay surface, leaving visible impressions that were much like those that rings make on sealing wax. Mattessich interpreted the impressions and various other markings, showing the
identities of Zurik and Kalem, as an early example of disclosure, since everyone observing the impressions (signs) on the outside surface of the urn could see that Kalem was operating a farm and that it owed Zurik five cows (referents).

The tokens inside the urn represented assets under the Kalem-farm’s control—prehistoric debits—while the impressions on its outside surface represented Zurik’s equity in the business—credits. This accounting system relied on a one-to-one correspondence between the accounting sign and the physical/social referent that it tracked. Such a correspondence was necessary because counting, as we now know it, had not been invented. Observers of the urns would reason that “there should be a cow in Kalem’s field for each token in the urn,” and the impressions on the urn said, “each is owed to Zurik.” In this way, anyone could track resources under the control of entities by matching the tokens, one for one, with resources.

Thus, in Sumerian urn-accounting, signs referred unambiguously and transparently to real physical resources. This premise persists, mistakenly we believe, in even the most sophisticated of today’s financial accounting practices. Of course, accounting now deals with more complex transactions and uses money as a numeraire. But the idea endures that every dollar on a balance sheet can be traced to an actual resource or obligation of an accounting entity, just as every token in an urn or impression on an urn could be traced in ancient times.

Granted, this one-to-one correspondence is still possible for simple transactions. Consider Fig. 1, a stylized accounting matrix with debits in the rows and credits in the columns. An oval in the matrix means “debit the account above, credit the account to the left.” Suppose that Firm 1 sells a fixed asset to Firm 2 in exchange for an obligation to pay for it. Firm 1 would debit Accounts Receivable and credit Fixed Assets (entry No. 1; the first oval). Firm 2 would debit fixed assets and credit accounts payable (entry No. 2; the second oval). The dual reality underlying the transaction is conveyed by the two rectangles, labeled No. 3 and No. 4. Rectangle No. 3 suggests that a fixed asset physically moves from Firm 1 to Firm 2. Rectangle No. 4 suggests that a social obligation to pay for the fixed asset flows from Firm 2 to Firm 1. (Anyone who doubts that such an obligation is “real” should try telling his or her banker that his or her mortgage obligation to the bank is “not real.”) Thus, in an important sense, the two rectangles represent shadow journal entries in

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6 A holdover from the one-to-one correspondence that was required between signs and referents in ancient times is the custom of using different words to describe different groups of animals: a pride of lions, a gaggle of geese, a brace of pheasants, a herd of cattle, and so on (Mattessich, 1995).
determinant space–time, which track the two aspects of reality—physical and social—that were affected by the transaction.

In this way, contemporary historic-cost accounting can be seen as trying to emulate the urns and tokens: it can track resources under the control of entities, holding management accountable for these resources. Underlying this role, now known as accounting’s stewardship function, is the implicit belief that double-entry accounting depicts changes in an underlying physical and social reality in determinant space–time, in a transparent manner.

The argument that today’s accounting signs depict the same duality as prehistoric ones suggests continuity in the relation of the simulacrum to the real. Yet for Baudrillard, as already mentioned, the relation between the sign and the real has been unstable, punctuated by discontinuities roughly corresponding with the Renaissance, the Industrial Revolution and the advent of post-modernity. Can accounting have sidestepped these discontinuities? We think not.

Indeed, a brief genealogy of capital and income, two key accounting signs, will show how the sign–referent relationship that gives these two ideas meaning underwent a series of historical discontinuities that can usefully be interpreted as Baudrillardian stages in the relationship of the sign to the real. These stages coincided with radical changes in the spatial and temporal dimensions of the referents to which accounting signs purport to point.

3.2. Caveats

Before turning to our genealogy of income and capital, two caveats are in order. First, our genealogical sketch is drawn from "conventional" accounting history. In relying on conventional historical accounts, we try to avoid (as far as possible) attributing transformations in accounting practices to the imperatives of economic change. Nonetheless, we are conscious that these attributions are present in our account—if for no other reason than that it is a difficult linguistic feat to purge all connotations of causality from a narrative that describes events that occurred contemporaneously or contiguously in space and time. By apparently acquiescing to "conventional" thought we do not intend to slight the contributions of accounting historians who have exposed the shortcomings of the conventional view and offered alternative interpretations that are frequently more satisfying (e.g. Bryer, 1993; Hopper & Armstrong, 1991; Hopwood, 1987; Hoskin & Macve, 1986; Loft, 1986; Miller & Napier, 1993; Miller & O’Leary, 1987). We adopt the conventional view as an expedient; our interest is in the location and form of the transformations in two accounting signs, not the purposes that would explain them.

Second, Baudrillard’s historical periodization of the sign-to-referent relationship requires, ironically, a foundational “reality” against which to judge the fidelity of sign–referent relationships. For Baudrillard, this foundational reality is the referent to which Feudal-era signs refer; however, one suspects that Baudrillard would be hard-pressed to provide the epistemological justification for such a claim. Though cognizant of this difficulty, we too give a place of privilege to one particular referent (i.e. determinant physical/social relationships), and label this referent “reality.” We do so fully recognizing that so anchoring the sign–referent relationship is problematic and cannot be “grounded” except by recourse to the very epistemological and ontological suppositions that we eschewed at the outset. Some anchor is nonetheless needed to render visible subsequent shifts in the referent to which accounting signs refer. Moreover, as we shall argue later, contemporary accounting practices seem still to presuppose the possibility and desirability of representing an underlying “reality” that is much like the determinant physical/social relationships to which accounting signs once referred. For these reasons, anchoring “reality” in determinant physical and social relationships is analytically useful—even if it must remain philosophically unjustified.

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7 As Miller and Napier (1993) note, conventional accounting history tends to be evolutionary, tends to focus nearly exclusively on double-entry bookkeeping, and tends to neglect the constitutive and transformative potential of calculative practices. Thus, the conventional history is at best an incomplete depiction of the historical significance of accounting practice.
3.3. The Feudal era

As Baudrillard describes the Feudal era, the relationship between signs and their referents was fixed, clear, and transparent. Even social position and status were obvious from appearances: “In this society of cast and rank, one is assigned a place irrevocably, and so class mobility is non-existent. An interdiction protects the signs and assures them a total clarity; each sign then refers unequivocally to a status...any confusion of signs is punished as a grave infraction of the order of things” (Baudrillard, 1983a, p. 84). The king’s crown and castle, like the peasant’s cap and hovel, clearly signaled the social position at the top and bottom, respectively, of a many-layered and rigidly enforced social hierarchy (Virgoe, 1989).

Medieval accounting also evidenced the influence of the social order. In medieval England, for example, relations of accountability were as indelibly inscribed as those of the social hierarchy. Ownership of assets was concentrated in the hands of the nobility, while those lower in the social order were responsible for maintaining and deploying the assets in accordance with the wishes of a king or lord. The social hierarchy was both comprised of and dependent upon a network of vertical relationships that made stewardship and agency the overriding accounting issues of the day.

On the agriculturally-based and largely self-sufficient manors, the predominant bookkeeping mechanism was the charge and discharge statement, a report prepared by manorial stewards to attest to their own integrity and competence in the discharge of their duties:

It often contained a money account, with rents and other receipts subdivided by types, and a corn and stock account, with separate categories for grains, cattle, and various kinds of produce. Beginning balances for each item were shown, then the steward “charged” himself for manorial and foreign receipts and natural increases in flocks, and “discharged” himself by deducting cash payments, losses, and other uses of these resources (Chatfield, 1968, p. 35).

Much like an ancient Sumerian urn, the charge and discharge account bore a direct and transparent relationship to an underlying physical and social reality occurring contemporaneously in space and time. The physical reality reflected in the statement was the transference of assets to or by the agents of the manor. The social reality was the obligation of stewardship grounded in the social hierarchy of the feudal order. So transparent was the correspondence between the accounting sign and the physical or social referent that “cash values were sometimes combined with physical quantities of goods in statements of manorial assets” (Chatfield, 1968, p. 35). Such aggregation suggests the obligatory and transparent nature of the accounting sign: cash values could be combined with quantities without loss of meaning only because the sign pointed unambiguously to tangible assets and social obligations under the stewardship of an identifiable individual.

Since the manor was largely self-sufficient, maintaining the distinction between income and capital was neither meaningful nor straightforward. Moreover, as Napier (1991, p. 165) observes, landowners viewed their estates primarily as sources of economic, social, and political power—not as sources of income. Production and consumption were nearly inseparable and changes in land ownership were virtually non-existent (Napier, 1991, p. 173). Although lords were advised to hear the accounts annually, to “quickly know everything and understand the profit and loss” (Hone, 1906, quoted in Vangermeersch, 1996), the need to reckon an income for the estate ran, at best, a distant second to that of monitoring and controlling agency relationships (Chatfield, 1968). Accordingly, little in existing accounting practices facilitated income computations. Charge-and-discharge accounting, then, served to acknowledge and discharge accountability; it was not a calculation of net income (Littleton, 1968, p. 290).

Thus, accounting in medieval England reflected the agency relationships inscribed in the feudal social order. And charge-and-discharge accounting, like ancient urn-accounting, can be viewed as a prototypical example of the sign/referent relationship that Baudrillard describes as characteristic of feudal or caste societies:
The signs are limited in number and are not widely diffused, each one functions with its full value as interdiction, each is a reciprocal obligation between castes, clans or persons (1983a, p. 84).

An accounting sign, with its formalization of the social obligation existing between two individuals of differing social strata, evidently played this role. In England, for example, charge and discharge financial statements were still used in the 19th century for large estates where aristocrats delegated to supervisory agents the management of these properties (Spring, 1963, cited in Napier, 1991). “The basic form of estate accounts as late as the nineteenth century had changed little from that developed in The Middle Ages for controlling and reporting on the activities of manorial bailiffs and reeves...” the “charge and discharge method” (Napier, 1991, p. 164). Summary statements of profit and loss accounts and balance sheets were little used as they did not provide better control than charge and discharge statements.

Charge and discharge accounting is not, however, generally viewed as a direct antecedent of today’s financial accounting because charge and discharge accounting did not serve a commercial purpose and was not a double-entry system (Littleton, 1968). Rather, the roots of double-entry are generally held to be in the bookkeeping practices of medieval Italy, where merchants of the city-states practiced the most sophisticated accounting of the medieval period and accounting procedures evidenced a direct correspondence with the physical and social activities that constituted trade. But even among Italian merchants, income and capital were not strictly demarcated. Indeed, even after double entry had provided the means, interim calculations of income were rarely made. Rather, the referent to which the accounting income sign pointed was the ex post surplus of liquidation proceeds over original cost, calculated at the conclusion of a discrete trading endeavor.

In the earliest days of Italian trading, each trader accompanied his own goods abroad, so most traders did not need accounting records (Littleton, 1933). But with the increase in trading activity that accompanied the Crusades, the “commenda” or silent partnership quickly became the norm (de Roover, 1956; Irish, 1968; Littleton, 1933). The investment of capital by a non-active partner created a need for agency accounting, similar to the accountability reporting of feudal England just described. Significantly, however, these early trading partnerships were more like a series of discrete joint ventures than a continuing business enterprise, with profit or loss materializing on the distribution of goods and proceeds at the conclusion of each venture:

This was profit in the true sense of the word rather than income. It was the result of liquidation; it measured the net of a closed venture, not a periodic calculation from continuing operations (Littleton, 1968, p. 290, emphasis added).

Income, then, was not distinguished from invested capital—except to the extent that each partner’s share of the proceeds differed from his initial cost. Accounting signs were transparent reflections of the receipt and disposition of goods in agency; even “income” was the obligatory reflection of the liquidation-outcome of a concluded commercial endeavor.

3.4. The order of the counterfeit

As the Feudal era gave way to the Renaissance era, the first order of simulacra—the counterfeit

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8 The necessary features of double entry are variously defined in the literature, but for our purposes here, we will consider the integration of real and nominal accounts as the critical characteristic. Littleton (1968) sees this as the “unique contribution” of double-entry bookkeeping, though elsewhere (1933) he defines it more rigorously.

9 Indeed, evidence exists of accruals and deferred charges as early as 1300. de Roover (1956, p. 119) notes the treatment of prepaid rent as a deferred expense in the ledger of the Farolfi company in 1300; he notes an accrual for unpaid taxes in the profit-and-loss statement of Francesco di Marco Datini in 1399 (de Roover, p. 144).

10 Additional factors contributing to the popularity of the commenda were the personal risks associated with trade voyages, a desire on the part of some nobles or clerics to engage in trade without sullying their own name, and the church’s prohibition on the taking of interest on capital treated as a loan (Littleton, 1933, pp. 36–37).
era made its appearance. In this new era, Baudrillard claims, the sign became a counterfeit of the referent. The advent of stucco, for example, led to imitations of nature—artificial signs and images of real referents (Baudrillard, 1983a, p. 88). Stucco created simulacra of natural materials in the construction of buildings, churches, and objects of art, making possible the transsubstantiation of all nature into one medium. Such counterfeit signs not only imitated real objects and ideas but also began to distort them. A sign “played” at reflecting the real, pretending to be an original and imitating nature. Importantly, the sign could pretend to refer to the referent since it was now arbitrary and liberated from it. Simulacra, however, were more than theatrical games played out with images and counterfeits; they also suggested social position and power arrangements.

The second order witnessed the appearance and rise of a new social class—the bourgeoisie. The many-tiered feudal order regrouped mainly into three layers: nobility, bourgeoisie, and the rest. Situated between the aristocrats and the lowest segments of society, the bourgeoisie claimed that “natural” rights, embedded in nature’s laws, should be the referent for social arrangements instead of the divine rights of monarchs and the Church. The bourgeoisie also had an appetite for simulacra-type goods such as “Queen’s Ware” (Josiah Wedgewood’s high quality imitation of real china that he had made for the Queen of England) that signified their station in society. As with stucco, clay could be made into fine china (the sign) so that the bourgeoisie could “play at” being royalty and aristocrats (the referent).

Coincidentally, the idea of value underwent a transmutation. Previously, Church officials had been able to construct “just” and “fair” cost-based prices for local merchants. But, as trade with distant foreign territories increased, local customers could not ascertain foreign costs accurately by relying on canonist principles (Tawney, 1984). Scholars therefore began to conceive prices in terms not of canon law but of value-in-use or utility to the buyer, both of which depended on the free individual’s subjective valuation.  

Accounting practices also evolved with medieval Italy’s burgeoning trade. By the time Pacioli committed to paper the “method of Venice,” the relationship between the sign “accounting income” and its underlying referent had already undergone a major transformation. The temporal and spatial coordinates of this transformation are the subjects of a vast body of scholarly literature. It seems unlikely, however, that these coordinates can be precisely located. For our purposes, it is satisfactory to accept the popular generalization that the articulation of double-entry bookkeeping came with the Italian Renaissance, when accounting experienced a transmutation.12 We can depict this as accounting’s rebirth into Baudrillard’s simulacral order of the counterfeits, accompanied by the introduction of periodic income calculations and a concomitant change in the relation of the accounting sign to the real.

Beginning in the 13th century, Italian merchants’ joint ventures began to take a more permanent form. The significance of this event for accounting is substantial because:

[The immediate result was to make the medieval book-keeper conscious of the fact that the firm is a unit in itself and that capital and accumulated profits represent the claim of the owners. It thus became necessary to keep track of changes in the owners’ equity, either through new investments or withdrawals, and to devise a system permitting the determination of profit and loss, which was then distributed among the partners in accordance with the provisions of the articles of association (de Roover, 1956, p. 116).]

Against this backdrop, double entry accounting emerged as a systematic integration of real and nominal accounts, the latter being closed into a profit and loss account and then into capital accounts (Littleton, 1968). For the first time, Italian

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11 Tinker (1985, especially Part III) gives a detailed history of the evolution and revolution of theories of value and the historical evolution during the Reformation age of theories of price formulation and the growth of the money market.

12 We acknowledge that traces of this transformation appear prior to the 13th century, which we take to be the approximate beginning of the Renaissance; we do not imply that it occurred as a single, momentous rupture in the history of Italian bookkeeping. More realistically, the transformation occurred piecemeal, culminating in the publication of Pacioli’s *Summa de Arithmetica* at the end of the 15th century (see also Aho, 1985).
merchants could continuously observe the interaction between capital and income and make interim calculations of income as desired (Littleton, pp. 290–291).

It is interesting to speculate on the origin of the words “real” and “nominal.” These early merchants probably recognized that any “income” that accumulated in the nominal accounts would not be “real” until it was ultimately distributed in goods or money. It was very likely in this era that such a distribution would be possible, since most of the referents of the accounting signs that comprised income were easy to identify. Still, the merchants evidently recognized that this income would not become “true” capital until it was ultimately distributed; perhaps they labeled the profit and loss accounts as “nominal” to reflect this fact. It would be some time before income, like stucco, began to assume the quality of a sign that “played” at reflecting the real, pretending to be an original and imitating nature.

Moreover, the merchants were slow to take advantage of their new ability to compute periodic income. Though the practice of closing the books annually was “customary... in the best known places” [Pacioli (1494) 1924, p. 90], “the accounts were seldom closed annually” (Littleton, 1968, p. 290; see also Pollard, 1968; Yamey, 1994). English merchants, too, were slow to adopt the new bookkeeping techniques. The recommended practice in England was: “When your principall great Boke or lidger, shalbe full written, then you must balance up all the acomptis not clearid, and carri the net restis therof into another great Boke” (Weddington, Bre/C128e Instruction, 1657: quoted in Yamey, Edey, & Thompson, 1963). In part, this was because the knowledge of double-entry mechanics spread only slowly abroad; the first bookkeeping text to appear in English was probably Oldcastle’s translation of Pacioli’s treatise, published in 1543 [Fogo (1905) 1968, p. 126]. As well, at the end of the feudal period, England had little need to integrate capital and income because commercial ventures had not yet acquired the continuity that double entry is uniquely suited to portray.

Industrial and trading towns gradually replaced the agrarian manors, but English enterprise was not business as we know it today (Littleton, 1933, p. 207). Production and trade were not continuous undertakings but a series of separate ventures that earned profit or loss (Chatfield, 1974; Littleton). Even in joint stock companies, the proceeds from each completed undertaking were divided and new stock was solicited for subsequent endeavors, so income was not distinguished from invested capital (Chatfield; Littleton). Rather, each investor inferred his income by deducting initial investment from proceeds. Thus, as in early Italian trading partnerships, income was the transparent and obligatory sign of a realized referent that was co-determinate with the sign itself.

In 1613, the East India Company made an initial (if tentative) move toward replacing terminable with permanent stock. In that year, it issued four-year subscribed stock, the subscriber paying one-fourth of the purchase price in each year and the receipts being used to fund that year’s voyages (Littleton, 1933, p. 210). The issuance of four-year stock marked “a definite step in the direction of passing from the ‘share-in-the-goods’ idea of membership in a joint stock company toward the idea of capital as an invested sum consisting of transferable units” (Littleton, p. 210). But only in 1657, when it received its new charter, did the company’s stock become permanently invested capital.

The divisions that had constituted the return to the company’s terminable stock were a liquidation of capital as well as a distribution of “income.” Clearly, such divisions are inconsistent with the principle of permanently invested capital. Accordingly, the governor of the company in 1661 announced that future distributions would consist of the profits earned rather than the divisions of the past (Littleton, 1933, p. 211). With this decision the company had to distinguish income from capital; “Italian double-entry bookkeeping, already well developed and in a sense awaiting its destiny, afforded the organic mechanism for accomplishing [this]” (Littleton, p. 211).13

13 Non-terminable stock was used by a limited number of British businesses prior to its introduction by the East India Company in 1613 (Littleton, 1933, p. 212). Its use was not widespread, however, and often it was a natural consequence of the nature of the business’ activities (Littleton, p. 212). By contrast, the East India Company’s decision to replace its terminable by non-terminable stock illustrates a shift in the means of obtaining capital that would, by the end of the 17th century, virtually eliminate the use of terminable stock in England.
The shift to permanent investment, in turn, radically changed the understanding of business activity through time, leading to an appreciation of the business entity as a going concern:

Continuity of operations radically changed accounting technique. Whereas bookkeeping for a completed venture was entirely historical, for a going concern it became a problem of viewing segments in a stream of continuous activity. Not only were results much more tentative, but the whole emphasis of record keeping shifted toward the future (Chatfield, 1996b, p. 457).

Accounting had entered the simulacral order of the counterfeit.

Though the accounting sign “income” lost its correspondence to “profit” in the sense of liquidation-proceeds, it remained grounded in a conception of income as the realized profits of a liquidated venture. Therefore, it was not until the 20th century that Chatfield’s “shift toward the future” was truly borne out. On the one hand, the introduction of accruals, deferrals, and other means of apportioning the ongoing activities of a business unit into periodic segments served to recreate in nominal accounts—in counterfeit—the natural conclusion of a completed venture, much as stucco produced counterfeit signs of nature. On the other hand, the widespread use of a balance-sheet approach to the calculation of income served to imitate the “distributions” that were characteristic of the terminal stock partnerships.14

Such an approach to income determination was well suited to the needs of a proprietorship or partnership, where undistributed profits were transferred to the owners’ capital accounts on an annual basis. It was less suited to joint stock companies or corporations where undistributed profits do not merge with contributed capital

(Littleton, 1933, pp. 217–218). Irish (1968, p. 61) suggests that this incongruity evidenced the persistent influence of a prototypical proprietor’s role on developing accounting practice, even as the introduction of the joint stock company made the separation of income and capital necessary.15

In contrast to the “business entity” principle, the proprietorship principle viewed capital as the personalized contribution of the proprietor instead of an anonymous aggregation consisting of all of the property that is active in a business (Irish, 1968, p. 69). Even as late as the mid-19th century, when the corporate form was facilitating the separation of ownership from control, it was thought that “the shareholder occupied the role of proprietor; [that] it was his profit which was earned and his capital to be preserved” (Irish, p. 68). The sign “accounting capital,” in short, sought to imitate a natural correspondence between the business activity and the entrepreneur’s invested wealth, which had been lost in the transition to depersonalized corporations that “had no soul” (Irish, p. 69).

The proprietorship principle spawned a preoccupation with balance-sheet valuation, income being conceived as the periodic change in net asset values.16 Since capital and profit were viewed as belonging to the shareholder-as-counterfeit-proprietor, little attention was initially paid to the means of valuation: cost, market and liquidation values were variously used. The accounting sign of income, therefore, served as an analogy of the Feudal era’s liquidation-proceeds (Irish, 1968, p. 69). But rather than serving as the obligatory and transparent reflection of this profit, as it had in the Feudal order, “income” had entered the order of imitation. The accounting sign “income” could henceforth only play at being real as the rationale began to fade for why double entry accounting had originally relegated the components of income to “nominal” accounts. This problematic

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14 “[T]he use of a balance-sheet to calculate the ‘net revenue’ or ‘net profit’...indicates a conception of profit which is associated with the final liquidation and winding-up of a company: the profit consisting of whatever property was left after using the assets to discharge the liabilities and reimburse the shareholders for their capital contributions” (Littleton, 1933, p. 216).

15 Littleton (1933, p. 216) speculated that the balance sheet approach to income determination “may well be associated with the proprietorship theory of accounting...” but he did not pursue this inquiry.

16 English companies law did not require a statement of profit and loss until the Act of 1929. Even then, no details (except the disclosure of directors’ fees) were prescribed (Irish, 1968, p. 69).
relationship was to change dramatically with the appearance of the industrial era in late 18th-century England.

3.5. The order of production

The Industrial Revolution ushered in Baudrillard’s second order of simulacrum. Its major defining feature, he observes, was the appearance of serial, mass production technology. One vital aspect of this was the transmutation of the sign-to-referent relationship. Recall that in Feudal times the sign referred in a direct and transparent manner to its object, while in the counterfeit order the sign “played” at being the referent and was a distortion of it. In the order of production, however, the sign came to “absorb” the object.17 Baudrillard explains this by reference to serial production with its code of political economy.

Serial production made it possible to produce identical objects ad infinitum. These commodities, as the economists called them, were no longer reflections, counterfeits or analogues of any original goods as in previous eras. Rather, they were simply images of the other objects manufactured by their particular serial production process. As such, they were simultaneously both sign and referent, or what Baudrillard labels “sign-objects”:

The Industrial Revolution gave rise to a whole new generation of signs and objects. These were signs with no caste tradition, which had never known the restrictions of status, and which would not have to be counterfeited because they were being produced on such a gigantic scale... The sign and referent had coalesced into a relation of equivalence, of indifference (Baudrillard, 1988a, p. 137).

Henry Ford’s black model “T” automobile serves as an exemplar.

Crucially, the social order too came under the sway of technical rationality with its “rules” of serial manufacturing. Just as material goods were produced ad infinitum, now both workers and bourgeois owners were serially produced, that is to say, commodified. This meant the decline of the natural rights of man and the code of the counterfeit, and the appearance of the new code of political economy whose rules and laws were instantiated in the social realm.18 In consequence, the individual was no longer in the image of God, a counterfeit of the aristocracy or a natural sentient being. The individual was merely an image of other workers or bourgeois persons. Serial production simultaneously generated the producing-consuming individual as well as the commodity.

The advent of serial production and the code of political economy also brought a transmutation in the nature and laws of pricing and exchange. In previous eras, prices were struck according to the code of canon law, labor exchange or value in use. Now, however, since every sign-object referred only to other commodities in its particular serially produced manufacturing chain, pricing came under the code of the political economy, which called for “exchange” value. The laws of supply and demand ruled the sign-object.

In general terms, serial production came to dominate the social realm just as it dominated the material, economic domain. The industrial machine, Baudrillard concludes, now corresponded to the rational, functional, historical consciousness of society. Accounting followed a similar path.

The advent of the Industrial Revolution saw the proliferation of long-lived assets used for the mass production of identical goods. This exacerbated the accounting problem inherited from the classical era: the growth of the corporate form and severance of ownership from control made accounting’s traditional proprietorship focus less and less appropriate. Over the next century, accounting would experience another momentous

17 Baudrillard offers modern art as an example. An abstract painting is pure form that does not refer to any real or imagined object. Its materials—paints, canvas, and frame—are absorbed by the form (see also Cooper & Puxty, 1992).

18 This usage of code resembles the logic (rules and laws) governing, say, the game of chess which includes a social hierarchy—King, Queen, Rook, Bishop, Knight and Pawn—and the rules for moving them around the board. The social body, it seems, contains a code for its regulation just as DNA contains the codes for the biological development and maintenance of a living organism.
rupture—this time, into Baudrillard’s order of serial production.

Accounting’s transformation from the order of the counterfeit to the order of serial production entailed a significant transfiguration of the signs of income and capital. Whereas “income” in the preceding order had served as an analogy for a proprietor’s liquidation proceeds or profits, income in the order of production was reconceived as the serialized, periodic return to depersonalized capital. This seemingly subtle distinction masks a profound transformation in the relationship between the sign and the real: capital and income relinquished their grounding in the productive endeavors of an entrepreneur. The logic and code of the market now governed them instead. Comparability and reproducibility became the end and the measure of the system.

The balance sheet approach discussed above was poorly suited to reckoning the periodic profit of an ongoing business concern. When applied to a corporate entity, the balance sheet did not adequately distinguish between operating income and increments to capital (Littleton, 1933, pp. 216–217). This was true not only because of the difficulties that stemmed from estimating current or liquidation values for the assets of a going concern but also because of the ambiguity of whether prior years’ undistributed earnings were income or capital.

This radical transformation of the signs of capital and income after the Industrial Revolution is extensively documented. The development, of course, did not occur overnight. Until the early 19th century, British industrial firms continued to treat capital as “an auxiliary to entrepreneurship instead of the central motive force behind the firm” (Pollard, 1968, p. 119). Their financial statements also continued to betray the confusion of capital and income that stems from a balance sheet approach to income determination (Pollard).

Indeed, British firms viewed profit as a reward for entrepreneurship instead of a return to capital, expected rates of return being invariant with risk:

Capital is adequately rewarded by interest at the current rate, at which, incidentally, the supply is clearly assumed to be highly elastic and limited by personal and specific shortages rather than by price. Profits are distinct and are rewards of entrepreneurship, per se, depending on skill, the concrete business situation or sheer luck, the entrepreneur using capital merely as a tool for which he pays the market rate (Pollard, 1968, p. 122).

This radical transformation of the signs of capital and income after the Industrial Revolution is extensively documented. The development, of course, did not occur overnight. Until the early 19th century, British industrial firms continued to treat capital as “an auxiliary to entrepreneurship instead of the central motive force behind the firm” (Pollard, 1968, p. 119). Their financial statements also continued to betray the confusion of capital and income that stems from a balance sheet approach to income determination (Pollard).

Thus, accounting’s “capital” was very different from today’s market-based conception, in which the price of a financial claim depends crucially on risk and investors expect the value of their contributions to increase with time as management invests in operations that generate positive net present value.

Pollard (1968) provides evidence in support of this. Well into the first half of the 19th century, the

\[
EVA_t = E_t - rBV_{t-1}
\]

We will have much more to say about the role of this important measure in today’s accounting theory of clean surplus. For now, we simply point out that even in the order of production accountants evidently realized that if residual profits were always zero—if the entrepreneur could not do better than earn the market rate of return on invested capital—then EVA would be zero. But if residual profits were consistently positive, the EVA would also be positive. Ironically, only the nominal accounts could indicate this. Importantly, in this era, the EVA accrued to the entrepreneur, not to the capital provider.
accounting signs of income and capital continued as counterfeits of the proprietor’s true liquidation proceeds. But, as the influences of the Industrial Revolution spread, changes in the nature of production and organizational forms prompted a rethinking of accounting income and capital. This rethinking, in turn, precipitated further slippage between these signs and their original referents.

The introduction of mechanized, mass production permanently decoupled production from sales, replacing lot-production with continuous manufacture. Thus:

...the nexus between acquisition and use and between production and market was broken. The manufacturer produced for an unknown customer, in advance of demand, and therefore, could not associate the eventual selling price with production (Most, 1977, pp. 41–42).

With the continuity of production, the financial reporting period became increasingly arbitrary and artificial; allocations with little import (Thomas, 1974) became crucial for computing income; and the sign of accounting income slipped another notch away from its original referent. Eventually, the income sign came to repudiate its claim to be the analogical equivalent of termination proceeds, and became instead a standardized, serialized production commodity in its own right whose principal value was to facilitate the market exchange of depersonalized capital.

Even more significant than the change in the nature of production was the change in organizational forms. The growth of large corporations effectuated an abrupt transfiguration of the notion of the firm, especially with respect to its temporal characteristics. Berle and Means, in a book that was to be influential in motivating the creation of the US Securities and Exchange Commission, describe the transfiguration as follows:

The nature of capital has changed. To an increasing extent, it is composed not of tangible goods, but of organizations built in the past and available to function in the future. Even the value of tangible goods tends to become increasingly dependent upon their organized relationship to other tangible goods comprising the property of these great units [Berle & Means (1932) 1968, pp. 45–46].

This suggests what was, perhaps, the most significant impact of the corporate form on accounting: a transmutation of the source of the value of corporate assets. As the import of the corporation’s quality as a going concern came to be appreciated, so did the view that “real” balance sheet values do not depend on cost, liquidation, or market values. They depend on the firm’s future earning capacity, which is reflected in its current profits (Irish, 1968, p. 71). The nominal accounts were seen to be at least as important as, and certainly no less “real” than, the real accounts.

Several accounting principles and conventions quickly followed the acceptance of this future-oriented view of asset valuation. The belief that “in any large company the real value of assets is collective and depends mainly on the firm’s earning power” (Chatfield, 1996c, p. 493) provided the justification for the realization principle in income measurement (Chatfield, p. 493). Under the realization principle, income was no longer the difference between the firm’s net worth at two successive balance sheet dates. Rather, it was the profit realized at the point of sale, whose measurement required the matching of costs with associated revenues (Chatfield, p. 493).

By the 1940s, income computations relied on “a series of interlocking assumptions that included historical cost, continuity, conservatism, and periodicity, as well as matching and realization”

22 Paton (1922) argued that the value of a corporation’s assets is not directly related to their physical existence, their acquisition costs, or their current market prices. Rather, their value reflects the future service benefits to be received by the firm.

23 Realization occurs when income has become definite and measurable. Usually, this is at the time of sale, when the earning process is almost complete, current assets and working capital increase, title passes, and there has been an objective, verifiable transaction with an outside party (Chatfield, 1996a). The first recommendation for using the realization principle seems to have been made by the American Institute of Accountants’ Special Committee on Cooperation with Stock Exchanges and the Committee on Stock List of the New York Stock Exchange.
and the income statement deposed the balance sheet as the main focus of accounting. Indeed, the Committee on Accounting Procedure’s Research Bulletin No. 1 described the balance sheet as merely a “connecting link between two successive income statements” (Irish, 1968, p. 70).

This shift in the relative importance of the two statements is congruous with the reconceptualization of capital that occurred with the rise of the large corporation. Limited liability and the separation of ownership from control changed the meaning of capital from a personalized, proprietary investment to a depersonalized, aggregated concept, encompassing all of the property used in a business [Paton (1922) 1962]. Profit, the distribution of which remained discretionary, stemmed not from the efforts of a proprietor but from the deployment of capital:

...the salary of the corporation executive is recognized as a cost not because it reflects managerial services performed, but because the service involved is disassociated from the ownership function of furnishing capital, taking risk and assuming ultimate responsibility (Paton & Littleton, 1940, p. 36).

These shifts mark a transition in accounting from the proprietary view toward the entity view of accounting that persists today.

In sum, with the adoption of the entity theory, income measurement assumed a more economic form (Chatfield, 1996c, p. 231). Abandoning any pretense of bearing an analogical relationship to liquidation proceeds, the sign of accounting income absorbed the referent (the profit of a specific venture) and the sign itself became an exchangeable commodity, serially produced and used to facilitate the allocation of capital in an exchange market. In this role, its most important attributes became those that guarantee its reproducibility: objectivity, verifiability, reliability, consistency and comparability. The serial production of income fed the market’s valuation of capital according to the code of political economy that governed value in the production era. No longer partaking of a “nostalgia for a natural order” (Kellner, 1989, p. 79), income sought not to imitate the natural conclusion of a business endeavor but to dominate it. The imperatives of market exchange dislodged recourse to nature as the legitimating social principle.

3.6. The order of simulation

The continual transmogrification of the sign–referent relationship reached its present phase in today’s order of simulation. The sign no longer refers directly to any referent as it did in the Fuedal era. The sign, however, is not just a counterfeit of a referent that observers readily distinguish from it—like nominal and real accounts—as it was in the counterfeit age. The sign, moreover, does not merely absorb the referent and dominate it, blurring the distinction between real and nominal in everyday use as it did in the production era. No longer an abstraction of anything in the simulation era, the sign is now its own pure simulation. The difference between the sign and referent implodes.24

Abetted by the explosion of information-technology devices,25 these non-referential images literally bombard the individual with a surplus of idealized models, images and simulations of all aspects of life—work, exercise, hobbies, sports, sex, diet, even accounting.26 The same signs pour in wherever the individual is located. The “real” person (made in the image of God, aristocrat, nature or commodity) disappears and the “de-centered” individual becomes an image of these signs.

As distance melts and time is compressed, attachments to place no longer matter. Local

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24 “Elle est sans rapport a quelque réalité que ce soit: elle est son propre simulacre pur...elle n’est plus de tout l’ordre de l’apparence, mais de la simulation” (Baudrillard, 1981, p. 17). The image/simulacrum is without rapport to any reality that exists: it is its own pure simulation...it is no longer at all in the order of an appearance, but in the order of simulation.

25 These include television with hundreds of stations, e-mail, voice-answering telephones, billboards, the internet, fax, and junkmail, as well as radio, newspapers and magazines.

26 “...interior design manuals, exercise video-cassettes, child-care books, sex manuals, cookbooks and magazines, newspapers and broadcast media all provide models that structure various activities within everyday life” (Baudrillard, 1983a, p. 88).
values, childhood and schoolmate friendships, sentiments for institutions and aesthetic feelings for things that were important in previous eras are readily discarded. What were “goods” a few decades ago (meat, potatoes, fur coats, church doctrines, etc.) are “noxients” today. Lacking a point of perspective, a clear boundary to space, a fixed center or emotional anchor, the individual is at once everywhere and, paradoxically, no where. And just as we no longer bother to fix a broken appliance but throw it out and replace it with the latest model, we now discard the past. As the postmodern maxim declares, it is “the end of history.”

The future collapses into the present as corporations, individuals and governments use new techniques to parry potential shocks. Many corporations, for example, use financial-engineering technology (implemented with options, futures and other derivative securities) to hedge or sell off uncertainty. Clearinghouses pass on the risk to individuals or to different companies that will buy it—for a price. The buyers then “reinsure,” selling smaller chunks of the risk to additional investors. Other corporations discount the future by securitizing their accounts receivable or other expected future receipts, bundling them together as synthetic securities and selling them to financial institutions without recourse for a negotiated “present value.” Individuals participate in innovative insurance contracts, welfare programs, marriage contracts, funeral packages, cryogenic preservation and sperm banks to “presentiate” things once and for all. The future is discounted; it does not count anymore. Past and future implode into the present (Sarup, 1993, p. 166).

Communication also undergoes a momentous transformation. The order of simulation features the mass consumption of signs and images that contain “senseless” meaning. In a television advertisement for Nike shoes, for instance, a flying image of Michael Jordan performs incredible basketball feats that are magically replicated by a small boy wearing Air Jordan sneakers. Far from being outraged by this lie or believing that they only need to buy the sneakers to be professional basketball players, the masses react by simply absorbing such images, much as a black hole absorbs cosmic light waves and particles.27

With this transformation of communication came a sea change in politics and power relations. In electing a president or prime minister, people see the candidate’s image as being more important than his or her substance. “Political campaigns become increasingly dependent on media advisors, public relations ‘experts’ and pollsters who have transformed politics into image contests or sign struggles” (Best & Kellner, 1991, p. 199). Similarly, documentaries and live television coverage of events such as the Gulf War, the conflagration of Northern Ireland and the O.J. Simpson trial become entertainment as much as hard facts and politics. And sporting events like the Olympic Games or international hockey and football become politics. Advertising, documentaries, politics and sport implode into “infotainment in which boundaries between information and entertainment collapse” (Best & Kellner, p. 20). Contemporary culture features “the incessant production of images with no attempt to ground them in reality” (Connor, 1992, p. 56).

The masses are consequently neutralized and depoliticized. They passively absorb the non-referential simulations then demand more, being decontextualized, de-historicized, de-politicized and desensitized to such power relations. As a result of this massification of society, claims Baudrillard, the difference between the proletariat and the bourgeoisie classes imploded so the “social” is no more. With this development comes the “death” of modernistic sociological theories and thus sociology itself. Smith’s invisible hand, Marx’s dialectic materialism, Weber’s bureaucratic iron cage, Foucault’s panoptic carceral society,28 Gramsci’s hegemonic elite, Habermas’ ideal speech situation, Lévi-Strauss’ incest taboo and Saussure’s semiology—all


28 See Baudrillard (1987) for his critique of Foucault’s depiction of society as carceral.
the grand theories of modernity—are obsolete. “[T]his is the end of the metaphysics, it is the era of hyperreality that begins” (Baudrillard, 1983a, p. 149).

4. Simulation era accounting

If Baudrillard’s description of the simulation era holds, one would expect the advent of the simulation era to have heralded momentous changes in the referential properties of “income” and “capital.” Neither mainline accounting texts nor GAAP, however, have instantiated such mutations. Instead, the accepted vocabulary of income and capital remains grounded in beliefs and assumptions that formed during the production era, while accounting practice clings to double entry techniques that emerged nearly five centuries ago in the counterfeit era. Next, we offer support for this conclusion and draw out some implications for users of accounting information and for accounting standard-setters by also drawing on recent advances in financial accounting theory.

4.1. Transparency lost

Much of extant accounting theory and practice sees accounting signs as being related to some “real” economic activity or production process, which occasions costs (efforts) and revenues (accomplishments) and gives meaning to basic notions like “costs attach” and “realization” (Ijiri, 1980; Paton & Littleton, 1940). As previous authors put it, economic activity “consists of uniting material, labor and various services to form new combinations having new utilities.” So “it is a basic concept of accounting that costs can be marshaled into new groups that possess real significance” and the purpose of marshaling costs is “to trace the efforts made to give materials and other components additional utility” (Ijiri, p. 13). Paton and Littleton’s treatise assumes, of course, that the signs “costs” and “revenues” successfully portray their referents, the incoming and outgoing flows of goods and services, so “income” is the realized difference between a period’s revenues and the costs that were associated with them. It also begs the question “How would we judge whether any portrayal was successful”? Paton and Littleton seem to take for granted that the representation of costs and revenues was a straightforward issue. Readers of financial statements will readily see through the numbers and apprehend the resources they portray. Only measuring income is problematic.

The criterion for income recognition is simply this: a firm can realize revenue when the outputs survive the salto mortale (deadly leap) into the market and therefore net income, the difference between the realized revenues and the costs that the firm had incurred to produce the revenues, is distributable (Ijiri, 1980). Each period net income augments retained earnings, a component of capital. A firm can distribute retained earnings to shareholders as dividends. Dividends, however, are a return of, not an on, capital so paying a dividend does not reduce periodic income.

Like Paton and Littleton, accounting regulators today know they cannot ignore the depiction of the more fundamental things that go into any computation of income and capital. But their approach to addressing the issue—financial statements should reflect underlying events and transactions in a transparent manner—seems inconsistent with the nature of accounting signs in the simulation era.

In 1998, for example, the chairman of the Securities and Exchange Commission called for “technical rule changes by the regulators and standard setters to improve the transparency of financial statements” (Levitt, 1998) and stated that “[c]orporate management and Wall Street need to undergo a wholesale cultural change, rewarding those who practice greater transparency and punishing those who don’t” (Levitt, 1998). Previously, a Financial Accounting Standards Board (FASB) exposure draft on accounting for financial instruments and hedging activities identified “lack of transparency” as one of four flaws in accounting for financial instruments that the proposed

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29 Lukka (1990) shows that an ontology of realism dominates accounting theory and practice. This belief—that there is an underlying, objective reality to which accounting concepts correspond—is argued to have dysfunctional consequences for the development and evaluation of accounting theory and practice.
accounting rules for derivatives would seek to overcome (FASB, 1996d, p. 42). In fact, the words “transparent” and “transparency” appear seven times in that important exposure draft. Thus, contemporary conventional accounting thought still seems implicitly wedded to the proposition that there is an underlying objective reality to which accounting signs should correspond and against which the faithfulness of the sign may be judged.

In their continued quest for transparency, then, the SEC and FASB divulge their realist ontology and the attendant conviction that accounting signs should correspond to some underlying, objective and independent reality that would be the standard for judging the fidelity of the signs. The realist ontology, as Lukka (1990) argues, still dominates accounting theory and practice and shows little danger of waning. In contrast, Baudrillard’s radical semiotic theory suggests that accounting signs such as “income” and “capital,” like other signs in the simulation era, have already slipped free of their putative referents. They now circulate in the realm of hyperreality where self-referential models engage each other without ground. In the hyperreal economy, “serial production yields to generation of models” (Baudrillard, 1983a, p. 103). Signs, including accounting signs, no longer refer to any referent, nor do they absorb the object—they are their own pure simulacrum.

We next investigate this radical conclusion by considering topics which are currently the object of much debate and controversy: accounting for executive stock options, earnings management and accounting for financial instruments. The issues that stem from these topics illustrate the persistence of production era thought on accounting theory and suggest that the accounting signs income and capital are continuing their transformation.

4.2. Executive stock options

The FASB recently proposed that the value of any newly granted stock options should be an expense of the period. Current practice requires companies to value newly granted stock options at their “intrinsic value”: the difference (if positive) between the market value of the stock at the grant date and the strike-price (“the strike”). Even before Black and Scholes’ (1973) seminal paper, however, it had been well known that this so-called intrinsic value grossly underestimates the true value of any option. In fact, executives nearly always get options that are either at-the-money (since the stock price at the grant date equals the strike) or out-of-the-money (since the strike exceeds the grant-date stock price). Yet, they are more than willing to forgo salary and other compensation benefits in return for these options because they know how valuable they really are.

Even deeply-out-of-the-money options are valuable if there is any probability that the stock price will exceed the strike before they expire. Moreover, boards of directors readily grant at-the- or out-of-the-money options. Such options induce managers to think like owners and strive to enhance the probability that the stock price will exceed the strike before the options expire. But companies do not recognize any expense because the options’ intrinsic value at the grant-date is either zero or negative.

Under the FASB proposal, the amount of the expense relating to newly granted options would be equal to the fair market value of the options granted, computed according to an accepted option-pricing model (e.g. Black & Scholes, 1973). Implementation is definitely not an issue. Already every SEC registrant must make such a computation and disclose the result, outside the financial statements, in a proxy statement filed with the Commission. In 1997, for instance, Kellogg’s reported that the value of the unexpired options held by its chief executive officer, most of which were out-of-the-money, was $15,312,599. Kellogg’s computed this value according to the Black–Scholes model, using conservative estimates of the volatility of the underlying stock returns and risk-free interest rates. Other SEC registrants made similar disclosures. None of this amount, however, appeared on Kellogg’s financial statements. The logic implicit in the FASB’s proposal to remedy this omission is a straightforward extension of ideas from the production era. A corporation’s

30 In principle, it could be reported as an “accounting-call” (Thornton, 1992).
income is the periodic return to capital and a portion of future returns to capital. So income falls because executives have a right (but not an obligation) to buy shares for an amount that could be below future market prices.\textsuperscript{31} From this viewpoint, the Black–Scholes model gives accountants a feasible remedy to what is putatively a measurement problem, a practical shortfall from the theoretical ideal. With this modification to practice, the sign “income” could better reflect the “real” referent to which it supposedly points.

For reasons that extant theory is hard pressed to explain, however, neither users nor producers of accounting reports saw the issue this way. Of the 348 comment letters (meeting certain sample selection criteria) that the FASB received in response to its exposure draft, only one favored recognizing compensation expense in the income statement (Dechow, Hutton & Sloan, 1996). Of course, this virtually unanimous opposition sank the proposal.

More importantly, however, the episode left the lingering question: what was the basis for all the controversy and opposition when the relevant accounting theory guiding recognition and measurement was so elementary? We think the question is just a symptom of a more fundamental concern raised by Kinney (1996, p. 183): “Why do official earnings matter?”

4.3. Earnings management

The informational perspective (Beaver, 1996) does not explain why people care about formally recognizing the effects of events and transactions like the granting of stock options in the income statement. The information conveyed by data disclosed in financial statement notes, proxy statements or elsewhere should be the same as that of data reported in the income statement since readers could readily adjust income to reflect the disclosures if they wanted to. But if, in this hyperreal financial economy, accounting signs have indeed lost their association with “real” referents, then the informational perspective’s presupposition that investors can “see through” accounting numbers to discern true market value is no longer sustainable. There is nothing to see through to.

From Baudrillard’s perspective, however, “official earnings” do matter. Fox (1997, p. 77) captured the idea: “[T]he simplest, most visible, most merciless measure of corporate success in the 1990s has become this one: Did you make your earnings last quarter?” The presence of this yardstick [a simulacrum] demands the practice of “managing earnings” in order to report official earnings [another simulacrum] that pretty much match analysts’ forecasts, presumably in the hopes of simulating value in the eyes of investors and so bolstering the company’s stock price.

While the practice of earnings management is certainly not new, the extent and nature of the practice appears to be evolving. As SEC chair Arthur Levitt recently observed “this process [earnings management] has evolved into what can best be characterized as a game among market participants” (Levitt, 1998). He describes the self-referential process surrounding the production and consumption of earnings numbers as follows:

This is the pattern earnings management creates: companies try to meet or beat Wall Street earnings projections in order to grow market capitalization and increase the value of stock options. Their ability to do this depends on achieving the earnings expectations of analysts. And analysts seek constant guidance from companies to frame those expectations. Auditors, who want to retain their clients, are under pressure not to stand in the way (Levitt, 1998).
Microsoft, for example, recently reported an income figure that met or slightly exceeded analysts’ expectations for the 41st time in the 42 quarters since the company went public. One analyst said, “Microsoft does a better job of leveraging accounting—I would say it’s almost a competitive weapon—than anybody else in the industry” (Fox, 1997, p. 79). For some time, Boston Chicken’s record of meeting or beating forecasts was perfect:

Not only is Boston Chicken able to report earnings every quarter, but those earnings have so far never failed to meet or surpass analysts’ expectations—even though those analysts all know that the earnings in no significant way reflect how the company is doing...” (emphasis added)... “It’s a very smart strategy,” says Michael Moe, a growth strategist at Montgomery securities. “It has made enormous amounts of capital available to them at an attractive price that most companies can only dream of” (Fox, 1997, p. 79).

Though the company’s reported earnings mirrored analysts’ forecasts perfectly, the latter were well aware that these signs did not refer to “real” earnings.

4.3.1. The map begets the territory

The case of General Electric Company (GE) is even more striking. Due to its large size, wide spectrum of technologies and its global diversity, GE enjoys “a very large amount of flexibility to... deliver strong, consistent earnings growth in a myriad of global economic conditions” and is thus recognized as one of the world’s leading, “aggressive practitioners of earnings management” (Managing Profits, 1994). Indeed, GE often develops a model of how an acquisition, a divestment or the restructuring of a division would affect official earnings before going ahead. So, in effect, unlike the traditional thinking where strategy is implemented and accounting later reports the results, in GE’s case the accounting model (the map) precedes the implementation of the strategy (the territory). As Baudrillard describes the hyperreality of the simulation era, “The territory no longer precedes the map...[rather] the map engenders the territory” (Baudrillard, 1983a, p. 167). So instead of accounting reflecting the real outcomes of GE’s strategic decisions, the ex-ante accounting model (itself a simulation of analysts’ expectations as explained above) precedes and engenders the strategy which in turn recirculates into reported earnings. Similarly, motion picture companies like Walt Disney forecast reported earnings when deciding when to release videocassettes of hits like Snow White. By carefully timing videocassette releases, they can maintain the smooth trend in earnings that analysts can easily forecast. Analysts’ earnings forecasts, in turn, sustain value. Fig. 2 depicts the potential simultaneity introduced by the earnings management “game”.

In sum, as Fig. 2 and the quotes from SEC chair Levitt suggest, analysts look for clues about a company’s future earnings in its current financial statements and investment decisions. But management simultaneously takes analysts’ earnings forecasts as yearly targets and selects investments that are likely to produce reported income equal to or exceeding those forecasts. In turn, the market capitalizes analysts’ earnings forecasts into stock prices. The company’s investment decision model, the analyst’s forecasting model and the investor's valuation model circulate simultaneously (to use Baudrillard’s syntax). They refer to each other but, for investors, they lack any relation to a real referent such as cash flow or “true” income. Granted, the company’s investments would not generate any earnings if they didn’t also generate cash flows. But neither analysts nor investors know how earnings relate to cash flows and hence to value. Rather, they produce and consume accounting earnings which, when coupled with a “price/earnings multiple,” can be used to simulate value.

So Baudrillard might address Kinney’s question, “Why do official earnings matter?” as follows. Extant accounting theories are poorly equipped to address the question since they are based on antiquated presuppositions about the relation between accounting signs and underlying referents. In the order of simulation, the surplus of non-referential signs such as earnings has exploded, especially in the financial economy that McGoun (1997) aptly describes as “hyperreal.” Amid ongoing discussions
of “meltdowns” and “irrational exuberance” in financial markets, the SEC chair called accounting “a reality check—in many cases, the only reality check—before important economic and investment decisions are made” (Levitt, 1996). But this is surely not the kind of “reality” the ancient Sumerians knew. Instead, earnings create a simulated reality of their own because investors’ valuation models still treat earnings as if they have the underlying referents of bygone eras.

This decoupling of income from its underlying referents does not, however, suggest a diminished importance for earnings. Indeed, as the financial economy becomes increasingly volatile, it becomes more important to maintain the predictability of the income calculation. Equally important is the appearance that the calculation of income, seen as a crucial “reality check” in sustaining the financial economy, is exogenous to that economy. Formal earnings matter because to “recognize” a transaction or event in the income statement is to “hyperrealize” —providing that transaction or event with an aura of “reality” in the realm of self-referential models that constitutes the financial economy.

4.4. Financial instruments

The debate and controversy surrounding the FASB’s financial instruments project provide an even more striking example of the problematic nature of accounting signs in the simulation era. The project has been on FASB’s agenda for more than a decade and is seen as “one of the most important financial reporting issues to be addressed over the next five years” (Beaver, 1996, p. 114). It has consumed vast amounts of time and energy and has all but dominated recent standard setting activities worldwide (FASB, 1990, 1991a,b,c, 1994a,b,c,d, 1995, 1996a,b,c,d,e, 1997a,b, 1998). (Table 1 summarizes key events and FASB accounting pronouncements related to financial instruments.) Although the FASB finally issued Statement No. 133, Accounting for derivative instruments and hedging activities (FASB, 1998), several basic issues remain unresolved. Nevertheless, some of the proposed solutions are consistent with the simulation era shift in the sign-to-referent relationships characterizing the accounting signs income and capital. We will return to this conclusion later.
Table 1
Chronology of events affecting accounting for financial instruments

<table>
<thead>
<tr>
<th>Dates</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>President Nixon closes the gold window, ending the system of fixed exchange rates put in place by the Bretton Woods Agreements of 1944. The ensuing “floating” exchange rate became extremely volatile</td>
</tr>
</tbody>
</table>
| 1973     | Black–Scholes option-pricing model published  
Chicago Board Options Exchange opened                                                                                                                |
| 1979     | Federal Reserve moves away from a policy centered on controlling interest rates, resulting in increases in interest rate volatility                                                                         |
| 1980s    | Foreign exchange and interest rate volatility increase dramatically, as does trading in so-called derivative instruments. Savings and Loan Associations, poorly equipped to deal with this volatile environment, experience eroding financial position leading to the S&L crisis (See Young, 1995, for a detailed exposition of the events surrounding the S&L crisis) |
| 1986     | Financial Accounting Standards Board adds the Financial Instruments project to its technical agenda                                                                                                     |
| 1988–1990 | Regulatory concern over Bank and S&L financial position deepens; regulatory focus changes to accounting                                                                                                     |
| March 1990 | Financial Accounting Standards Board releases SFAS No. 105 *Disclosures of information about financial instruments with off-balance sheet risk and financial instruments with concentrations of credit risk*. This is the first Financial Accounting Standards Board standard from the financial instruments project, with a “stop-gap” focus on disclosure issues |
| June 1991 | US Financial Accounting Standards Board adds the marketable securities portion of the financial instruments project leading to SFAS No. 115 to its technical agenda. For a detailed list of the external pressures that led to this agenda decision, see Appendix 1 of Johnson and Swieringa (1996) |
| September–December 1991 | Financial Accounting Standards Board releases research report *Hedge accounting: an exploratory study of the underlying issues; Recognition and measurement of financial instruments, discussion memorandum* and SFAS No. 107 *Disclosures about fair value of financial instruments* |
| June 1993 | Financial Accounting Standards Board releases SFAS No. 114 *Accounting by creditors for impairment of a loan* and SFAS No. 115 *Accounting for certain investments in debt and equity securities*                                                                 |
| 1994     | Derivative related losses shock the financial community, leading one observer to note that “A derivative is anything that made a loss in 1994.” SEC undertakes a review of derivative disclosures in approximately 500 annual reports                                               |
| October 1994 | SFAS No. 118 *Accounting by creditors for impairment of a loan—Income recognition and disclosures—an amendment of SFAS No. 114* and SFAS No. 119 *Disclosures about derivative financial instruments and fair value of financial instruments released* |
| November 1995 | SFAS No. 124 *Accounting for certain investments held by not-for-profit organizations released*                                                                                                           |

(continued on next page)
The chief issue, which continues to engender debate, is when and how to formally recognize and measure the value of financial instruments in a company’s financial statements. Standard setters have forged a consensus around the “mark to market” rule, which states that the balance sheet should carry most financial instruments at fair value, normally current market value. “Fair value is the most relevant measure for financial instruments and the only relevant measure for derivative instruments” (FASB, 1998, p. 1). In drawing this conclusion, the Board evinces an unwavering faith in markets, appealing again to the rationale that appeared previously in Statement No. 107:

Fair values of financial instruments depict the market’s assessment of the present value of net future cash flows directly or indirectly embodied in them, discounted to reflect both current interest rates and the market’s assessment of the risk that the cash flows will not occur (FASB, 1996d, p. 45).

Ironically, however, just as accounting standard setters are embracing the use of market values on company balance sheets, analysts and others use financial statement data to gauge whether the market value of the company’s stock has strayed from its fundamental or “intrinsic value.” For example, Lee, Myers, and Swaminathan (1999) constructed a measure of the Dow Jones Industrial Average based on accounting numbers, and a trading strategy based on deviations of stock prices from their intrinsic values so computed. They concluded that, “the frequency and magnitude of the negative expected returns seems to raise doubts about market efficiency” (Lee et al., p. 26).

Baudrillard would presumably see the accounting for financial instruments as both an extreme example of hyperreality in financial markets and a paradox of self-reference. As Fig. 3 shows, on one level, derivative instruments are subject to the ultimate market discipline because their values can be unambiguously derived, through “no-arbitrage arguments,” from “the underlyings”—the prices of assets on which the derivatives have claims.32 At this level, expectations and probabilities are irrelevant because a hedge portfolio, consisting of

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32 Financial Accounting Standards Board (1998) Statement No. 133 says an underlying is “a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, or other variable. An underlying may be a price or rate of an asset or liability but is not the asset or liability itself” (p. 245).
fundamental financial instruments, can always be constructed to replicate a derivative’s payoffs in every eventuality. It cannot sell for anything but the price an investor would pay for the hedge portfolio (Jarrow & Turnbull, 1996, Chapter 6).

But what determines the prices of the underlyings? We argued in the previous section that the market uses accounting earnings, along with other information, to value companies’ stock and other securities. The prices of these securities then become the underlyings that sustain the derivatives’ prices and the self-referential sequence is complete. Companies’ earnings determine security prices, which determine derivative prices, which determine companies’ earnings.33 In short, neither the accounting sign nor the financial market sign appear to be grounded in any external reality. Instead, each model appeals to the other model for the only “reality check” available. Accounting signs model market signs, which in turn model accounting signs. Thus, in the hyperreal financial economy of simulation, the difference between the sign and the referent implodes. The signs become images of themselves in an imbroglio of ungrounded, self-referential simulation, as shown in Fig. 3.

4.4.1. Other comprehensive income

The FASB’s valuation rules are only one aspect of the hyperreality of accounting for financial instruments. The FASB also recommends that the traditional notion of “retained earnings” (RE) be augmented by a construct called “accumulated other comprehensive income” (AOCI) (FASB, 1997a). The total carrying value of owners’ equity for accounting purposes then consists of the sum of these two amounts, RE + AOCI, plus the historical value of contributed capital. As for the income

33 Some links between derivative values and reported earnings are more direct than are others. The value of a simple call option whose underlying is the firm’s own share price depends directly on that firm’s reported earnings, to the extent that reported earnings influence share prices. But even the value of a derivative whose underlying is not the firm’s own share price is influenced by the earnings that firms report at the level of the economy as a whole. Quarterly earnings figures are one indicator of macroeconomic conditions. Trends in corporate earnings affect expectations for future prosperity, which influence consumer spending and saving and corporate investment, which in turn cause movements in interest rates, commodity prices and foreign exchange rates, all of which serve as underlying prices or rates for derivatives.
statement, "comprehensive income" (CI) is "[the change in equity of a business enterprise during a period from transactions and other events and circumstances from nonowner sources]" (FASB, 1998, p. 243). Thus, CI is the sum of net income (NI), which increases retained earnings and other comprehensive income (OCI), which, of course, increases accumulated other comprehensive income (AOCI).

Fig. 4 traces the possible changes in the value of these accounts when a company uses derivatives to hedge its transactions. When changes occur in the fair value of some hedging derivatives, the resulting gains and losses are to be shunted through OCI and thus into AOCI, where they will be held in abeyance. The thick arrow near the bottom of the figure depicts this shunt. If the hedge loses its negative correlation with the risk exposure it is intended to hedge, it is said to be "ineffective." Then, the gain or loss to date is immediately recycled through the income statement (reversing the OCI it has caused) and thus into retained earnings. The dark, L-shaped arrows portray this recycling. If the hedge is effective, the company waits until the hedged transaction in the underlying item occurs. Then, the cumulative loss or gain on the derivative is again recycled through the income statement, but this time it is matched with income or loss on the underlying transaction. The upshot is that the change in the value of the derivative will not affect total shareholders' equity at that later time. Rather, it will be transferred from AOCI to retained earnings. Thus, the timing of income recognition and total capital accretion will no longer be linked. Moreover, the OCI and AOCI signs are ambiguous. OCI and AOCI can be treated as part of either income or capital, neither, or both. In Baudrillardian terms, the difference between income and capital implodes.

Fig. 4. FASB 130 and 133 nomenclature.

Perhaps the most surprising result of this procedure occurs when a company hedges the purchase of a depreciable asset. Suppose an American company is going to buy a building in France next month. To hedge the purchase price, it buys a forward currency contract for Euros. During the month, the value of the contract increases by $1
million, which of course goes to AOCI. When the purchase is consummated, what happens to this $1 million? If the useful life of the building is 50 years, 1/50 of the $1 million will be matched each year with depreciation expense (the “realization event”) and go through net income to retained earnings. In effect, AOCI (a sign) will act as a kind of holding tank for formal earnings (another sign) in the future.

4.4.2. Credit ratings

The commodification of credit ratings provides another lucid example of hyperreal accounting in which financial instruments and accounting signs circulate without real referents. Credit rating models appeal to accounting for signs of a company’s ability to pay its fixed debt obligations (Altman, 1968). But with the onset of creative financial instruments, one company’s credit rating becomes a sign that it can “rent” to other companies with lower ratings, by selling transferable put options.34

Moreover, when it marks its financial instruments to market values a company does not need a good credit rating to produce extra “income.” Paradoxically, it can generate income from a poor rating by following the International Accounting Standards Committee’s (IASC, 1997) discussion paper, Accounting for financial assets and liabilities. The IASC proposes that companies record their debt at fair value, recognizing in income even those changes in fair value occasioned by changes in their own credit ratings. So a lower rating would reduce the value of the company’s debt, thus “producing” income. This treatment conforms with the logic of contemporary accounting in attempting to measure and report increments to shareholder value using double-entry recording. In substance, however, this accounting again takes on a ghostly quality, chasing unreal constructs while forging a reality of its own through a process that might be regarded as “hyperrealization.”

Recognizing the counterintuitive implication of the idea that a decline in a company’s credit worthiness spawns income for shareholders, the recent FASB Statement No. 133 (unlike the IASC document) says companies should distinguish changes in the fair value of debt occasioned by broad market movements and those that result from changes in credit risk. For example, a company’s credit rating would tumble if it suddenly faced major litigation. This would cause the fair value of its debt to decline, creating a gain for shareholders. Simultaneously interest rates might fall in response to central bank policies. This would cause the fair value of its debt to rise, creating a loss for shareholders. In theory, only the loss resulting from the change in overall market rates would be recognized. The gain resulting from the lawsuit would be ignored. In practice, however, can investors distinguish the two?

4.5. Summary

Income and capital signs appear to be paradigmatic examples of Baudrillard’s notions of simulacra, hyperreality, and implosion. In the order of simulation, the distinction between an accounting sign and some underlying reality has imploded. The accounting sign now precedes (and even creates through its “sign value”) the referent that it once purported to represent. It is no longer an abstraction or an appearance of any “real” thing. It is its own pure simulation, making circular references to other models which themselves make circular references to accounting signs. Just as postmodern individuals become images of models that precede them and the difference between the real person and the image implodes, the accounting sign becomes an image of a model of the accounting sign itself.

In more general terms, accounting is one among many models that precede and subsequently create a hyperreal financial economy (McGoun, 1997) that is characterized by “fundamental changes in global financial markets,” which have “transformed the financial activities of all entities” (Johnson & Swieringa, 1996, p. 165). These transformations have unmoored the financial economy from the real economy of labor and production so that the former increasingly bears no temporal or spatial relationship to the latter (McGoun). For example, the so-called stock market crash of October 1987 had few noticeable consequences outside the

34 By 1986, it was estimated that $437 billion of private guarantees were in effect in the United States.
financial economy. Contemporary accounting and finance seem to circulate on their own plane, parallel to but insulated from the material economy of labor and production.

Against this backdrop, the most recent shift in the sign-to-referent relationship for the accounting signs income and capital is occurring. As argued above, the accounting income sign has entered the simulation era as an important image in creating and sustaining the financial economy. The predictability and apparent exogeneity of the income sign play crucial roles in sustaining financial markets, by providing a “reality check” of sorts.

However, recent turbulence in financial markets, in particular several well-publicized derivatives-related disasters in the past few years (particularly 1994), has, in our view, created a tension in the relationship between the accounting signs income and capital that cannot be easily resolved within the traditional accounting model. Huge derivatives losses during the 1990s exposed the ephemeral nature of capital in an increasingly volatile financial economy. We argued earlier that in the production era capital was viewed as central to the firm, something that endures and encompasses all the property used in the business. Events such as the almost overnight elimination of the capital of a 200 year old financial institution, Barings Bank, pointed out that the “historical cost” notion of permanent capital was no longer sustainable and must be modified. Accounting’s sign “capital” needed to be reconceived as representing something more consistent with what capital represented in volatile financial markets.

The International Accounting Standards Committee (IASC) March 1997 discussion paper Accounting for financial assets and financial liabilities points out that treating gains and losses on all financial instruments as income is consistent with a market-based conception of capital and capital maintenance. Mark-to-market accounting is consistent with a definition of capital “in terms of capacity to earn the current market rate of return” (IASC, 1997, p. 128). If capital is to be reconceived in market-based terms, then it must represent an amount that can be invested in financial markets and that can earn market rates of return. Hence, the IASC document concludes that all gains and losses from financial instruments—whether assets or liabilities, primary or derivative instruments—must be reflected in income given clean-surplus accounting and this definition of capital.35

The simulation era market-based capital, which must represent and be endogenous with capital in financial markets, and the simulation era income, with its perceived exogeneity and predictability, are clearly at odds within the traditional accounting model. Promulgating standards that reflect these two notions of capital and income is not possible in a clean surplus accounting model. The introduction of other comprehensive income (and the balance sheet counterpart, accumulated other comprehensive income) provides a solution to the problem by decoupling the traditional income statement from the total capital of the firm.36

Also, as we discuss later, the comprehensive income construct permits two different clean surplus relations to exist simultaneously, and so allows for the contemporaneous existence of otherwise irreconcilable notions of income and capital. The dilemma is resolved by reflecting the changes in the fair value of all financial instruments in “capital” without including those changes in the traditional income statement.

5. Recapitulation and implications

At this point we want to recap our major findings and then discuss their implications. There seems to be sufficient evidence to support the idea that the accounting signs income and capital have experienced a series of ruptures in their nature which, to an important extent, match the radical changes in the sign to referent relationships postulated by Baudrillard in his phases of the image and orders of simulacra ideas.

35 In a clean surplus accounting model, book value can be changed only by (a) income or loss or (b) dividends net of capital contributions.

36 We are aware that “dirty surplus” items have resulted in a decoupling of income and capital for some time. The advent of other comprehensive income is significant in that it conceptually addresses this decoupling through the creation of another accounting sign.
In the Feudal era the income sign was a good (faithful) image of the real material referent profit. In the next phase it became a counterfeit of profit and subsequently, no longer the analogical equivalent of termination proceeds. Income then shifted to a standardized, serially produced commodity that facilitated the exchange of depersonalized capital, and, indeed, became itself an exchangeable commodity. Finally, in the simulation era it slipped free from any putative referent to circulate simultaneously with other non-referential models of itself.

The accounting sign of capital also experienced a series of ruptures and radical changes. In Sumerian times, the contents of the farmer's clay urn bore a one-to-one relationship with the capital invested in the farm. In early Feudal times, capital was not distinguished from realized profit—both were encompassed in liquidation proceeds and later the value of terminal stock upon its liquidation. As permanent stock companies replaced sole ventures and terminal stock companies, capital became a counterfeit of liquidation proceeds. Next, as the production era witnessed the separation of ownership and control and the appearance of private sector limited liability corporations, capital came to be seen no longer as a reflection of liquidation value nor as the cost or current acquisition prices of assets and liabilities but rather as an image of the firm's future earning capacity which was reflected in its current (nominal) net income. Finally, in the simulation era the accounting sign of capital refers to "the capacity to earn the current market rate of return" (IACS, 1997, p. 128) and so is no longer attached to the traditional income sign in either time or space. Rather, it is a free-floating sign circulating in the hyperreal financial economy.

Thus, much of accounting today seems to be symptomatic of the postmodern era in general. Both the income and capital signs have gained their autonomy from any referential "real" realm and from each other. As Baudrillard (1988a, p. 125) states, this "is simulation in the sense that from now on signs will exchange among themselves exclusively, without interacting with the real ...[they are] at last free for a structural or combinatorial play that succeeds the previous role of determinate equivalence." It is the final emancipation of the sign from any referent.

So a Baudrillardian perspective might lead to the conclusion that accounting in the simulation era has lost its bet, so to speak, on the reality principle and the rule of transparency on which it has traditionally been grounded. As Baudrillard might put it, the struggles standard setters are having with the above issues look like a hopeless effort "...in order to save at all costs the truth principle, and to escape the spectre raised by simulation: namely that truth, reference and objective causes have ceased to exist" (Baudrillard, 1988a, p. 168).

This, however, would be conceding Baudrillard too much. While accounting signs might no longer refer transparently to real objects, they clearly are capable of influencing the day-to-day course of events in the material world. The question that this raises for us is why is it that accounting information is used extensively in economic and social relations when, according to our Baudrillardian analysis, it does not refer to any real objective realm, and has had changing referents over time? Recent developments in financial accounting theory demonstrate that accounting signs such as income and capital may be combined and related to modern valuation theory without specifying a rigid definition of either income or capital, as long as the two articulate in a clean surplus model. We present a brief review of this body of theory and then speculate on how it relates to the findings of our Baudrillardian analysis.

5.1. Arbitrariness of income and capital—the clean surplus model

The clean surplus model shows that the market value \((MV)\) of a stock can be represented in either of two ways (Feltham & Ohlson, 1995; Ohlson, 1990, 1991; Peasnell, 1982; Preinreich, 1938): (1) the present value of future dividends; or (2) the book value of shareholders' equity \((BV)\) plus the present value of future "abnormal earnings." Each year, "abnormal earnings" is defined as the excess of reported earnings in that year \((E)\) over the market-determined cost of capital \("r\) times the opening balance of \(BV)\. Thus:
The only condition needed to establish this equivalence is the relation that gives the model its name, the clean surplus relation:

$$BV_t = BV_{t-1} + E_t - D_t$$

where $D_t$ represents dividends net of owners’ capital contributions in year $t$. Indeed, the only manipulation needed to get from the dividend summation to the abnormal earnings summation is to substitute $D_t = BV_{t-1} + E_t - BV_t$ in the dividend summation. No additional assumptions are needed.

Thus, as long as book value can be augmented or decreased only by earnings and dividends (net of capital contributions), respectively, the two ways of computing value give identical results.

In a sense, this equivalence is trivial because the present value of dividends is the value to be distributed while the book value plus the present value of future abnormal earnings is the value invested in and subsequently created by a business. This is why consulting firm Stern Stewart (1994) called the series of year-$t$ abnormal earnings, $E_t - rBV_{t-1}/(1 + r)^t$, “economic value added.”

A corollary to this fact is that changing the measurement of income and capital has no effect on the valuation calculation provided the change satisfies the clean surplus relation. It merely shifts the representation of firm value between book value and the present value of future abnormal earnings. A detailed explanation of the algebra underpinning this result in the clean surplus model is presented in Appendix A.

As far as valuation is concerned, then, the clean surplus model reveals that income and capital can be defined however we like provided the accounting system satisfies the clean surplus relation. The relative contribution of capital versus income to the valuation model certainly varies as the definitions of income and capital change, but the conceptual validity of the combination of income and capital as a representation of value is not affected.

The important consequence of this is that the income and capital signs can be used as instruments for accomplishing various objectives without destroying their value-relevance. This brings us back to our earlier question: why are the accounting signs income and capital useful for social interaction even if there is no objective referent for these signs?

5.2. Uses of income and capital

From a Baudrillardian perspective, the referentiality of the sign to some objective domain is irrelevant for social relations in the order of simulacra since signs are precious not for their “truth” value nor for their exchange or use value, but for their “sign value”. Thus accounting statements about income and capital attested to by a public accounting firm are highly valued just as are paintings signed by the acknowledged “great masters.” As corporations expand further globally, these certified accounting signs are highly valuable as they impart a sense of exogeneity and reliability to society at large. Similarly, recent advances in financial accounting theory suggest that accounting signs income and capital can be used to represent firm value, as long as they are related through a clean surplus accounting system. Both perspectives suggest that accounting signs such as income and capital, even if ungrounded, may be useful for social interaction.

Even in a hyperreal economy, people must interact with each other. It has long been recognized that institutions like an accounting profession provide arbitrary but exogenous anchors that facilitate complex social and commercial interactions. “Institutional information” consists of standardized data and “rules of thumb,” such as “go on green; stop on red,” which people voluntarily accept though they know they are arbitrary. Accountants, among others, produce institutional information that expedites social and commercial interactions (Thornton, 1979).

For example, corporate law generally states that a company cannot pay dividends unless there is a positive balance in its “retained earnings” account. Loan covenants often require companies
to keep their “debt/equity ratio” below and their “interest coverage ratio” above some specified amounts. And management compensation is often a contractual percentage of “residual income” [earnings minus a normal return on invested capital, akin to “abnormal earnings” in the clean surplus model (Healy, 1985)]. Accounting numbers are generally employed to compute the numbers needed to enforce these constraints and contracts. The parties to such agreements know that accounting numbers are imperfect representations of the constructs they want to measure. They accept them, however, because any contract, to be enforceable, must be based on observable phenomena whose occurrence can be conceived when the contract is struck.

Accounting numbers, imperfect though they are, are observable and verifiable ex post. This is a necessary condition for their usefulness in contracting. A sufficient condition is that people can conceive and predict—within limits—the accounting numbers that will be reported given certain events and transactions. Such predictions were straightforward in the early days of urn accounting, so people would readily use the number of tokens in an urn as a basis for dividing the fruits of any endeavor among the participants. Today the connections between accounting numbers and the underlying events and transactions are much more complex, but people still need to use the numbers as bases for enforcing contracts and dividing the spoils of a firm’s operations. The properties of accounting numbers that make them serviceable for this task, observability, verifiability and predictability, are achieved at the cost of arbitrariness. Ideally, people then take this arbitrariness—such as “stop on red”—into account in forging social and commercial agreements. Obviously, a key benefit of such information is its apparent exogeneity and stability. But instead of purporting to reflect a profound reality, institutional information such as earnings or a debt/equity ratio is part of reality. People who understand this see institutional information as an arbitrary but essential feature of a hyperreal world. Without it, everything would seem to depend on everything else and interaction would be problematic if not impossible.

5.3. Hyperreal standard setting

The exogeneity and stability of accounting information could be achieved in either of two ways that we label “myopia” and “full rationality.” In either case, standard setters might appear to act as if there were an underlying reality.

5.3.1. Case 1: myopia

Standard setters would be oblivious to the paradoxes of hyperreality but they would be consistent. A hyper-regulator with perfect knowledge of Baudrillard’s arguments regarding the order of simulation might appoint myopic standards setters who truly believed they could apply outmoded notions of capital and income even in the era of simulation. Users, however, would know standards setters were myopic. They could then take the standard-setting process and the resulting accounting numbers to be exogenous and use them as instruments for commercial and social intercourse, whatever their real referents. They could also use them as inputs to the clean surplus model to value firms, because market value would always be equal to book value (capital) plus the present value of future abnormal earnings (adjusted income), however book values and earnings were defined.

This method of obtaining exogeneity and stability would perhaps reflect badly on the intellectual capacity of the standard setters but it would not diminish the usefulness of what they did for one fundamental reason: If accounting numbers are merely instruments or anchors for contracting and performance evaluation, it does not matter where the anchor is sunk as long as it is stable. That is, users’ expectations of what standard setters do are as important as what they actually do. In a sense, users would have the best of two worlds: a predictable (though myopic) standard-setting process and serviceable data for valuation.

5.3.2. Case 2: full rationality

Standard setters would grasp the significance of their role as fully as the hyper-regulator. They would view their role as setting consistent but arbitrary standards on behalf of users who may not be able to see through them. That is, the clean
surplus model suggests that standard setters cannot “hurt” users’ valuation models by changing the depiction of income and capital. But they can choose standards that are more useful than others for some purposes. For instance, cash accounting can be as good as historic cost accounting for valuation purposes but inferior when it comes to forging management compensation agreements based on earnings.

Ideally everyone, including standard setters would understand that accounting representations are arbitrary and hyperreal. People would then voluntarily accept and use the arbitrary numbers that stem from the standards, but not because they reflected any profound reality. They would accept and use them because they were part of reality—the only reality they have for interacting with each other in a complex world.

In a sense, full rationality would make the standards setters’ job easier because they would know that often, how an event or transaction should affect income or capital is just a decision that makes the numbers useful, not a definitive answer to a question of what is real. Their deliberations would conceivably proceed more smoothly and their standards would be more readily accepted as institutional information because they did not need to argue about reality. Some examples of such decisions readily come to mind.

5.3.3. Examples of rational standard-setting decisions

We first return to Fig. 4, which depicts a seemingly convoluted concept, OCI (other comprehensive income). When viewed as institutional information, AOCI (accumulated OCI) allows readers of financial statements to conceive of capital “in terms of capacity to earn the current market rate of return” (IASC, 1997, p. 128), at least as far as the firm’s financial instruments are concerned. The inputs to the clean surplus model (ignoring contributed capital) would then be $BV_t = RE_t + AOCI_t$ and $Et = NI_t + OCI_t$. Alternatively, readers can ignore OCI and use the more familiar inputs, $BV_t = RE_t$ and $Et = NI_t$. With perfect information about the future, the two versions of the clean surplus model would produce the same value, $MV_0$ for the firm’s equity because eventually, all transactions affect net income. So readers can choose between these representations in their valuation models, without having to forego using the conventionally computed measure of earnings, $NI_t$, whose verifiability still makes it a desirable instrument for contracting and performance evaluation.

Deferred taxes represent a case in point. They were at various times seen as part of equity (capital), debt (future tax liabilities) and in between (deferred taxes). Neither accounting theory nor an external referent can support any of the three interpretations unequivocally. “Future tax liabilities” are now called liabilities, although governments do not have accounts receivable from their putative debtors. Again, standard setters had to do something with deferred taxes. As long as readers understand how they are computed, they can use the numbers they engender as inputs to the clean surplus model and use or ignore them for various decisions.

Paragraph 39 of SFAS No. 130, Reporting comprehensive income, provides an extensive list of eight different adjustments that past reporting practices have suggested be included as a component of equity without (or prior to) inclusion in the income statement. This list reveals several points of tension between income and capital that have been developing in recent years. It includes foreign currency adjustments, pension adjustments, futures contracts qualifying as hedges, and unrealized holding gains on certain securities. The growing tension between the conventional concepts of income and capital has increasingly spawned accounting standards that do not adhere to clean surplus accounting. The new comprehensive income standard, however, will permit standards that reflect both income and capital in the simulation era, and conform to clean surplus accounting.

All of these decisions impart a sense of stability and exogeneity to net income and book value, even though they remain arbitrary. As a result of such decisions, users can accept accounting num-

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37 Brown, Collins and Thornton (1993) called “deferred taxes” the platypi of the accounting kingdom because, for a time, they were called mammals although they laid eggs.
bers as arbitrary but stable bases for contracting and performance evaluation, while adjusting income and capital, if they want to, for the purpose of representing the value of the firm in the clean surplus model.

6. Reflections on Baudrillard

The previous sections of the paper erect a platform for critically engaging Baudrillard from an accounting perspective. One immediately apparent problem concerns his assertion that simulacra in the contemporary world lack rapport with reality. Many accounting signs today still have, as for Sumerian urn-accounting, a one-to-one correspondence with real objects. These include balance sheet accounts for physical objects like land, buildings, plant and equipment and inventory (in most instances). Moreover, accounts receivable or payable, long term debt and sales retain a reasonable measure of transparency with underlying events, transactions and social obligations. Thus, Baudrillard’s contention that in the order of simulation signs no longer refer to, and often precede, reality comes across as an overly dramatized, totalizing vision (Bertens, 1995, p. 147) that exaggerates “the extent to which postmodern simulation and hyperreality constitute the contemporary society” (Best & Kellner, 1991, p. 143).

Another concern involves Baudrillard’s contention that information gets absorbed, de-politicized, and neutralized by the masses “who function as a gigantic black hole” (Baudrillard, 1983c, p. 9). The existence of a robust investment community (including pension and mutual fund managers, investment analysts and advisors, bankers and insurance company loan officers) transacting daily on the basis of accounting information such as earnings forecasts and reported earnings clearly contradicts this claim. Nor are the “masses” totally neutralized. Political parties and politicians do respond to accounting signs as they regularly call on governments to subsidize loss making companies deemed vital to the national interest (e.g. Chrysler Motors and Savings and Loan Associations). They also attack (perhaps misunderstanding accounting signs) companies that seem never to pay their future tax liabilities. Giddens (1984) might put it this way: existential agents acting by virtue of their discursive consciousness do respond to accounting signs for both financial and political gain. So Baudrillard’s black hole assertion reads in part like an under-theorized, highly abstract generalization lacking a contextual base (Best & Kellner, 1991) and his use of quasi-scientific metaphors has been criticized by highly regarded physicists as manifestly incorrect (Sokal & Bricmont, 1998).

It also appears that assigning shifts in the accounting signs of income and capital to Baudrillardian periods or eras presents an overly rigid picture. His depiction of absolute breaks between eras—feudalism, counterfeit, production and simulation—does not sit well with some historical facts of accounting practice. Today, for example, accounting signs function in many different ways. They signify real, material objects (as argued above). They serve as an analogy (counterfeit) for realized profit. They are charge-and-discharge signs for private sector absentee owners and fund accounting in public sector organizations. And they serve as instruments for rewarding executives and holding managers responsible and accountable for operating budgets and standard costs. Accounting simulacra in the contemporary world operate in each of these ways as well as circulating as self-referential signs as in Figs. 2 and 3. Furthermore, even in the production era accounting signs performed multiple roles. Stewardship accounting was common and some accounting signs, as in prior and subsequent eras, referred unambiguously to tangible assets and liabilities. So the history of accounting suggests that Baudrillard offers only an under-theorized description of the ruptures between eras which he presents as a faits accomplis unsupported by careful historical research and documentation (Best & Kellner, 1991).

A final concern is Baudrillard’s obsession with the sign world and his consequent marginalizing.

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38 We are indebted to an anonymous reviewer for encouraging us to engage theoretically with Baudrillard from an accounting standpoint.
of relations of power. Accounting practices have important material and political consequences. For example, executives at companies’ headquarters routinely respond to accounting signs of income and capital by executing plant closures or layoffs and by restructuring divisions (euphemistically called “right-sizing”). Governments respond to such signs by providing tax relief and financial aid to certain private sector firms; labor unions refer to accounting signs to support demands for wage increases (Amernic, 1985; Amernic & Aranya, 1990). Finally, accounting signs facilitate more nefarious activities like money laundering (Mitchell, Sikka & Willmott, 1998) and tax avoidance through international transfer pricing transactions (Armstrong, 1998). So Eagleton (1996) rightly criticizes Baudrillard’s theoretic (and that of other postmodern theorists) as an apolitical admixture of radical and conservative elements. It furnishes little or no leverage on the role of accounting in relations of power.

7. Possibilities and a caveat

We have sketched a poststructuralist depiction of accounting in the simulation era. If, as our genealogical history of accounting suggests, the accounting signs of income and capital have slipped free from their putative referents and now circulate in hyperreality, then a significant modification of our understanding of accounting reports and information is overdue. It no longer makes any sense to talk about some objective realm or reality that exists independently of some neutral objective accounting representation of it (Hines, 1988). Indeed, the clean surplus model suggests that we can make sense of “income” and “capital” without adopting that untenable position. So accounting interprets the world of purposive enterprises and facilitates interaction by providing arbitrary but exogenous instruments for contracting and performance evaluation. It is not a means of reflecting how things were, are or should be in some uninterpreted realm of objects and events.

From a Baudrillardian viewpoint, many questions that have traditionally concerned standard setters and accounting scholars are no longer of much interest: Has the market impounded the information conveyed by particular accounting signals into the price of the company’s stock? Is a particular accounting treatment or GAAP coherent with the rest of the extant accounting treatments or GAAPs? Instead, we are concerned with describing the nature of accounting signs, with unearthing how they came to be produced and with why they subsequently come to be taken for granted as a reality of their own. This also leads to questions such as: If accounting narratives no longer refer to the real realm of material production and economic activity in the classical sense, what does this mean for accounting and accountants? What are the implications of this in postmodern economies, where jobs in the real realm are rapidly dwindling (Esposito, Aronowitz, Chancer, DiFazio & Yard, 1998), where the gap between rich and poor continues to widen (DiFazio, 1998) but fortunes can be made in minutes by exploiting how accounting signs circulate in hyperreality?

Addressing these types of questions is beyond the scope of this essay. Our aims are more modest. We hope, while recognizing that such a proposal is controversial (Cooper, 1997; Montagna, 1997; Young, 1996), that the paper will show the potential of adopting poststructuralist perspectives and exploring their coherence with contemporary accounting theories such as the clean surplus model. Much more in Baudrillard’s corpus of literature could be tapped to further our understanding of accounting and the issues facing standard setters. Concepts such as: “hypertalia” (what happens when something surpasses its function or objective); “ecstatic” proliferation of simulacra; the “exstasy” of too much meaning as information and communication engorges the world; “cool” media; and the consumption of accounting reports for their “sign value” (Baudrillard, 1988b, 1990a, 1993, 1994b).

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39 This is one of the most frequently cited criticisms of Baudrillard’s later works. See Kellner (1989), Best and Kellner (1991), Norris (1992, 1993), Bertens (1995), Eagleton (1996) and Sim (1998). Baudrillard seems mainly concerned with describing the simulation era and so glosses over the historical events preceding it.
Finally we should issue a caveat. In contemplating our attempt to apply Baudrillard’s theoretic to accounting, we became conscious of the same fundamental, methodological paradox that Hawking (1988) noted in his treatise on space and time. If our interpretation of Baudrillard provided a complete explanation of the phenomenon of accounting, presumably the theory would also determine the actions of accounting researchers, ours included. That is, “the theory itself would determine the outcome of our search for it! And why should (the theory) determine that we come to the right conclusions from the evidence?” (Hawking, p. 12). Why should we, as four thinking beings, be free to observe accounting as we want and draw logical deductions from what we see when many users and producers of accounting reports cannot “see out” of the Baudrillardian maze of self-referential models?

We believe that much more can be done in drawing out the implications of Baudrillard’s theories for accounting. But his view (like any view) has its limits. In this we are conscious of the dilemma posed by Godel’s undecidability theorems, which state that any formally logical system contains questions that cannot be proved or disproved on the basis of the axioms within the system. Moreover, other new perspectives will probably be equally important in advancing our understanding of accounting.

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Appendix A: The clean surplus model

To see how the clean surplus model accommodates shifts in the representation of firm value between book value and the present value of future abnormal earnings, take the first discounted abnormal earnings term outside the summation sign:

\[
MV_0 = BV_0 + \frac{E_1 - rBV_0}{(1 + r)} + \sum_{i=2}^{\infty} \frac{E_i - rBV_{i-1}}{(1 + r)^i}
\]

Now suppose that we adjusted the accounting measures of capital and income by making an arbitrarily large charge to opening capital, leaving a balance of \(BV_0 - \delta\). This amount, \(\delta\), might be called “extra depreciation.” Obviously, then, the book value to be depreciated in the future would decrease by this amount and the sum of all future earnings would increase by the same amount. Not so obviously, the discounted present value of all future abnormal earnings would also increase by this amount. We will illustrate this by supposing that all of the “extra depreciation” is reversed in year 1, so the revised value of \(E_i\) is \(E_i + \delta\). But a rigorous proof can be constructed to show that it does not matter when the reversal takes place in the future or how it is spread across the remaining years: the discounted present value of future abnormal earnings still increases by the amount \(\delta\).

Proof of the result over two years is straightforward. Under the new definitions of capital and income, today’s book value is equal to \(BV_0 - \delta\) and next year’s earnings is equal to \(E_1 + \delta\). The revised
market value of the firm’s equity, $MV_0$, is then as follows.

\[
MV'_0 = BV_0 - \delta + \frac{(E_t + \delta) - r(BV_0 - \delta)}{(1 + r)}
+ \sum_{t=2}^{\infty} \frac{E_t - rBV_{t-1}}{(1 + r)^t}
= BV_0 - \delta + \frac{E_t - rBV_0 + \delta(1 + r)}{(1 + r)}
+ \sum_{t=2}^{\infty} \frac{E_t - rBV_{t-1}}{(1 + r)^t}
= BV_0 + \sum_{t=1}^{\infty} \frac{E_t - rBV_{t-1}}{(1 + r)^t}
= MV_0
\]

Remarkably, in the last line today’s extra depreciation charge cancels with the present value of the enhanced abnormal income in the future and the market value is unchanged: $MV'_0 = MV_0$. Thus, the accounting rules for distinguishing income from capital are irrelevant to valuation. Any definition will do as long as the accounting numbers satisfy the clean surplus relation.

**A1. Alternate measures of income and capital in the clean surplus model**

One extreme approach in measuring income and capital is to mark everything to market, forcing book value to equal market value: $BV_0 = MV_0$. Then earnings in any year $t$ are equal to $rBV_{t-1}$ and abnormal earnings are always equal to zero. This is the approach favored by the International Accounting Standards Committee for valuing financial instruments:

The concept of capital maintenance that applies to reporting gains and losses arising in the fair value of financial instruments is one that defines capital in terms of capacity to earn the current market rate of return (IASC, 1997, p. 128).

A second extreme approach is not to reflect any capital value on the firm’s financial statements, setting $BV_0 = 0$. Then the firm’s value comes solely from the present value of future abnormal earnings. If $BV_t$ is always equal to zero, the firm is depicted as using “cash accounting” and its value is simply the present value of future cash flows.

A third approach, which reflects current practice, is to record $BV_0$ at historic cost, or some mixture of historic costs and fair values. Then, measure year-$t$ earnings, $E_t$, using a mixture of realization/matching rules and mark-to-market rules. If accounting numbers are to have any meaning beyond a redundant representation of the present value of future dividends or cash flows, this must be the approach chosen by standard setters.

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