RE-INVENTING REALITIES

ADVANCES IN PUBLIC INTEREST ACCOUNTING

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RE-INVENTING REALITIES

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ACCOUNTING AND THE PROBLEMATIQUE OF IMPERIALISM: ALTERNATIVE METHODOLOGICAL APPROACHES TO EMPIRICAL RESEARCH IN ACCOUNTING IN DEVELOPING COUNTRIES☆

Owolabi M. Bakre

ABSTRACT

This paper examines the alternative frameworks adopted in empirical research in accounting in developed and colonised developing countries, and suggests that a more appropriate methodological framework is necessary to explain the emergence and subsequent development of the accounting profession in the colonised developing countries. In this regard, the paper rejects the claim that the expansion of the Western-based accountancy bodies into colonised developing countries is inevitable. Rather it posits the view that the influences of the U.K.-based Association of Chartered and Certified Accountants (ACCA), the American Institute of Certified Public Accountants (AICPA), the Canadian Institute of Chartered Accountants (CICA) and the

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dominance of Western accounting practices in the colonised developing world are intertwined with the local historical, global and cultural circumstances. Therefore, the problematique of imperialism is critical and significant for understanding the context in which the accounting profession has developed in former colonised countries. Bearing this in mind, the paper argues, then, that in order to adequately and validly investigates accounting issues in any former colonised developing nation; one has to adopt the frameworks of cultural imperialism and globalisation to fully contextualise the nature of accounting in colonised developing countries.

1. INTRODUCTION

The accounting frameworks of the Western capitalist world have become the model usually borrowed and used to investigate accounting issues in most colonised developing countries by most researchers, without due regard to their appropriateness to the economic environment of most developing economies (Enthoven, 1977). This practise has faced many criticisms from many researchers on developing economies (see for example, Briston, 1978; Hove, 1986; Perera, 1989). In this context, methodology is seen as the "interrelations of substantive problems, sources of evidence and of larger assumptions about society, history and the purposes of scholarship" (Skocpol, 1984, p. x). As Samuels and Oliga (1982, p. 94) observe that "Where different socio-political, economic and cultural differences exist, different accounting frameworks may be necessary to investigate accounting issues in different countries."

In the specific case of the colonised developing countries, these societies have been shaped by residue of colonialism (Hove, 1986), and subsequent integration of their economies into the world capitalist economy under globalisation (Bolland, 1988). In fact, recent research has shown that in most developing countries, there have been strong indications of continuity between the period of colonisation and period of independence, rather than discontinuity (see for example, Annisette, 1996; Okike, 1994). Considering the above position, Bakre (2001) argues that these factors are of paramount importance in any consideration of the choice of methodology to investigate any development that has taken place in the socio-political, economic and cultural environment of any colonised developing nation. As Ndubizu (1994, p. 56) also observes that "the socio-political, economic and cultural history of any colonised society shape the emergence and the subsequent development of any profession in that particular society."

Therefore, the mere adoption of the traditional theoretical frameworks of the western capitalist for understanding the emergence and expansion of the

accountancy profession in colonised developing countries would be inadequate. Most of the traditional theoretical frameworks of the western capitalist world do not account for local histories and the nesting of these histories within the complex colonial, global and capitalist arrangements that have given rise and continue to shape the existence of these colonised emerging nations even after their independence. Consequently, some writers have called for the development of richer methodologies (see, for example, Enthoven, 1977; Nwadike, 1994; Samuels, 1990; Samuels & Oliga, 1982; Susela, 1999; Talaga & Ndubizu, 1985; Wallace & Williams, 1994). The critical concern here is to carry this debate further by posing an alternative methodological approach to the study of accounting in developing countries, whether, colonised or independent.

The problematique of imperialism is understood to mean the underlying problems and contradictions that are found in the relationships between the developing and the developed world in general that goes as back to the inception of the capitalist world system in the late 15th century, which in turn is understood as having a expansionist component beyond national frontiers. The aim of the paper is to dissect this dynamic in various ways, as it relates to the development of the accounting profession in the developing/former colonised world. To facilitate this, the paper is organised into eight further sections. Section 1 critically examines some alternative schools of thought adopted in empirical research in accounting in both developed and colonised developing countries. Section 2 argues for the case of a theory that recognises historicity as an appropriate framework to investigate the emergence and development of professions in colonised developing countries. Section 3 develops the frameworks of cultural imperialism and globalisation to show their appropriateness to the socio-political, economic and cultural history of most colonised developing countries. Here, the argument is that the potent combination of European colonialism and capitalism created historical circumstances that made colonised developing countries economically, politically and culturally dependent upon the colonisers. The focus then shifts to include discussions on the capitalist world system in its current form – globalisation, where the over-ripeness of capital in the advanced capitalist societies has led to further intensification of capital export, particularly to developing countries, through the activities of transnational corporations. In this context, the activities of the transnational corporations in developing countries are considered. As cultural imperialism and globalisation have arguably shaped the post-independence development of most colonised developing countries, Section 4 further examines the consequences of cultural imperialism and globalisation on the colonised identity and the subsequent post-independence emergence of, and conflict between the two elite groups of "local" and "global" capitalist in most colonised societies. Section 5 contextualizes the development of the accountancy profession in

developing countries within the rubric of cultural imperialism and globalisation. Section 6 goes deeper into the analysis by demonstrating the linkages between cultural imperialism and globalisation and the resultant struggle between the elite groups, to the specific case of the struggle between the local and global capitalist elite groups for the control of the accountancy profession in the former British colonies. Section 7 enhances these theoretical contexts by focusing on the elite struggle for the control of accountancy in these former British colonies after independence; while Section 8 concludes.

2. ALTERNATIVE SCHOOLS OF THOUGHT IN EMPIRICAL RESEARCH IN ACCOUNTING IN THE DEVELOPING WORLD

In recent times, researchers in accounting have borrowed from the three paradigm of positivism, interpretive and critical perspectives of the social science, sociological and philosophical schools of thought to conduct investigations in accounting in developed countries (see for example, Laughlin, 1995; Sikka & Willmott, 1995; Solomon, 1991; Tinker, 1984, 1986). Paradoxically, these accounting frameworks of developed western countries have also been borrowed and adopted in conducting accounting research in most colonised developing countries, without due regard to their appropriateness to the economic requirements of these emerging nations (Nwadike, 1994; Wallace & Williams, 1994). These borrowings include conventional approach, which includes the trait, and functionalist approaches to the profession (see Mepham, 1977). The critical approaches which includes the Weberian, Marxian, Foucauldian and Hebermasian approaches to the profession (see Almotary, 1999; Annisette, 1996; Chua & Poullaos, 1993). However, most of the sociological and philosophical alternative schools of thought borrowed and used in accounting investigations have been criticised for their inappropriateness for accounting research in most developing countries (see for example, Briston, 1973; Ndubizu, 1994; Perera, 1989; Samuels & Oliga, 1982; Susela, 1999; Wallace & Williams, 1994).

For example, the trait and functionalist approaches are atheoretical and ahistorical and are of little help in understanding the dynamic relationship between occupational groups (e.g. accountancy) and the society. These approaches do not help in linking professions to society or explaining why some functions are valued. They offer an understanding of the nature of the professions only in terms of current practices arising from the so-called needs of society. Variations between societies and over time are ignored. It has therefore been argued that any framework that

fails to link the emergence of any profession to the socio-political, economic and cultural history that gave rise and continue to shape any colonised society, would be inappropriate for the peculiar environment of a colonised developing country (see Bakre, 2001).

The Weberian approach is based on social "closure"; however, the "closure" theory is not problem-free, particularly, in the case of emerging economies (Chua & Poullaos, 1993). Despite their usefulness in relating professions to markets, status, reward and hierarchies, Weberian theorists make little attempt to relate professional groups to the broader society. They also have considerable difficulty in explaining why some groups succeed in securing status, reward and monopolies and others do not. In the specific case of the colonised developing economies, the "closure" policy has been another subject of serious criticisms of the appropriateness of the Weberian approach as a framework to understand any accounting investigation in colonised developing countries. It has been claimed that in developing economies, the closure policy has been responsible for the protection of self capitalistic interest as against the general claim of protecting public interest by developing countries professional bodies. In addition, closure policy has also been held responsible for creating lack of unity in the professional development in most developing countries after their independence (see for example, Okike, 1994).

Marxist theories, which are concerned with the relations of production as opposed to those of the market found in the neo-Weberian perspective, are criticised for paying inadequate attention to issues such as race and other social divisions, which predate capitalism. Marxist theories also assume that power is concentrated in particular social sites of capitalism. Thus it is useful for macro studies, but often found to be inadequate in detailed micro level studies, which are peculiar to the nature of the economies of most colonised developing economies.

The main limitations of the Foucauldian theories from the colonised developing world perspective are that Foucault's methodological writings were closely related to his substantive research in the western world. This approach lacks continuities. They do not directly relate to colonised developing countries. Some have argued that theories that lack continuities may not be relevant to the socio-political and economic environment of developing countries, most of which have the feature of continuities between the period of colonisation and the period of independence (see for example, Annisette, 1996). However, the failure of the above theories to take account of the local histories of the colonised developing countries, and the nesting of these histories within the complex colonial, global and capitalist arrangements that gave rise and continue to shape the development of these countries, has necessitated the call for richer methodologies. The next section responds to this call by suggesting some historical methodological approach.

3. A HISTORICAL METHODOLOGICAL APPROACH FOR EMPIRICAL RESEARCH IN ACCOUNTING IN COLONISED DEVELOPING COUNTRIES

While the above schools of thought may have provided valuable theoretical bases for understanding many accounting issues particularly, in developed world, their appropriateness or relevance for the investigation of research issues in developing countries, have been subjected to various criticisms in academic community (see for example, Ndubizu, 1992; Susela, 1999; Wallace & Williams, 1994). One of the two major criticisms is that they pay scant attention to the socio-political and economic circumstances through which the accountancy profession in these countries have emerged (Ndubizu, 1982). The second major criticism is that these theories have not paid enough attention to the various cultural and global historical linkages and influences that have combined to shape the development of the profession in these emerging nations, especially, the colonised nations (Wallace & Williams, 1994).

As a result, any development of theories that could better explain and understand the emergence and subsequent development of any profession in developing countries will have to be within the context of the historical circumstances of these nations. In order words, it has to be within the complex colonial, global and capitalist arrangements that have contributed to the emergence and shaping of the accounting profession in these emerging nations. In the above context, Marx well-known statement in the 18th Brumaire noted:

> **Men make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by them, but under circumstances directly encountered, given and transmitted from the past.** The tradition of all the dead generations weighs like a nightmare on the brain of the living (Emphasis added, Quoted in Geoffrey Pilling Marx's Capital, 1980, p.69).

As Pilling (1980) puts it:

> What is true of man's economic, political, etc. history is true equally of his intellectual history. **Every new development in knowledge, in all sphere of investigation, necessarily grows out of the old forms in which that knowledge has historically emerged** (Emphasis added, p. 69).

In light of the above analyses, the theoretical context which best explains the complexities surrounding the emergence and development of the accountancy profession in developing countries, particularly, the colonised emerging nations, are historical-theoretical contexts of cultural imperialism and globalisation. These theories are the contexts in which accounting emerged and continue to develop in emerging economies. Mills (1959, p. 145) suggests that, "every social science or

every well-considered social study requires an historical scope of conception and a full use of historical material."

However, to the contrary, of the above suggestion, many of the central postulates underlying accounting are conceived as being natural and transhistorical rather than the products of a very specific historical development (Cooper, 1995, p. 176). Against this background, Cooper (1995) further argues:

> There is probably only the remotest possibility that accounting could have a revolutionary potential; and that for that revolutionary potential to arise we need, at the very least, to have a theoretical understanding of the historical development of accounting and **this theoretical framework must be far removed from the one which currently drives accounting** (Emphasis added).

In response to the above challenges, Skinner (1969) suggests that a "truly historical approach" to the study of any discipline means setting the discipline in its context. And Stewart (1992, p. 58) argues that by placing accounting in its organisational, social and historical contexts, the study of accounting history is liberated from the constraints of the present, because contexualism takes the past more seriously on its own terms. Thus, Carnegie and Napier (1996, p. 9) argue:

> **We can better understand the past and the present development in accounting through enriched theoretical perspectives, appealing to a range of historical, social, political and cultural modes of explanation**, and aim not just to document accounting's past but to enable us more effectively to evaluate accounting present (Emphasis added).

The arguments from these scholars have become more important in the case of the developing countries.

In the specific case of developing countries therefore, Johnson and Caygill (1971) have shown evidence of continuity in the accountancy education, practices and the profession between these emerging nations and their former colonisers/capitalists from the period of colonisation, to the period of independence and beyond. In light of this, it is argued that considering the colonial and global historical circumstances that have given rise and continue to shape the socio-economic, political and cultural environment of most colonised developing countries, empirical research in accounting in colonised developing countries can be better conducted by adopting historical frameworks of colonialism and capitalism (cultural imperialism) and globalisation.

3.1. Colonialism and Capitalism

Colonialism is a system of the accumulation and acquisition of economic surpluses, which is achieved by the implanting of settlement on a distant territory (Said, 1993,

p. 8). It is almost always a consequence of imperialism, which means the practice, the theory, and the attitudes of a dominating metropolitan centre ruling a distant territory (Said, 1993, p. 8). As Doyle (1986, p. 45) puts it:

> Empire is a relationship, formal or informal, in which one state controls the effective political sovereignty of another political society. **It can be achieved by force, by political collaboration, by economic, social or cultural dependence** (Emphasis added).

On the other hand, capitalism is a revolutionary mode of production, which relies on the appropriation of surplus value and the source of surplus value in the exploitation of workers through the institution of wage labour (Lekachman, 1986). It relies on the market system, which determines distribution, allocates resources and establishes the income levels, wages, rents and profits of the different social classes (Lekachman, 1986, p. 3). As Zeitlin (1972, p. 95) puts it:

> Capitalism is a process in which capitalist imperialism establishes industries for the extraction of natural resources and organises market for its commodities, **both of which lead to a substantial transformation of the colonial socio-political, economic and cultural systems** (Emphasis added).

Colonialism is not a new practice. Since the dawn of history, colonialism has been facilitated through the conquest and control (e.g. by the Ottoman Empire, Mongols, Mughals, and the Roman Empire) of other peoples, their lands and possessions. In earlier European colonialism, the conquering powers relied upon a large measure of repressive powers and terror to shape people's subjectivity (Bolland, 1988; Rodney, 1982). Around the sixteenth and the seventeenth centuries a different kind of colonialism was ushered in by the European powers. Capitalism began to emerge as a distinctly new mode of production and social relations. This induced merchant capitalists to search far and wide for cheap raw materials, labour and access to markets beyond their national frontiers. The later phase of colonialism was established alongside the expansion of capitalism in Europe and spread to other countries outside Europe, especially developing countries (Bottomore, 1974; Rodney, 1982). As such, that capitalism has been synonymous with colonialism or the establishment of imperialist relations with other regions of the world. In addition to the previous phases (which extracted tributes, wealth), European colonialism restructured the complex relationships between people and cultures to facilitate a flow of people, goods and ideas in a way that was of advantage to the colonisers (Said, 1978). Raw materials, enslaved Africans and indentured Indian labourers were transported in order to manufacture goods, often in the towns and cities of the colonisers or their preferred locations, whilst the colonies provided captive markets for the European traders (Mintz, 1861). The profits of capitalist expansion always flowed back to what some began to call the "mother country," or the coloniser country (Rodney, 1982). As Peet (1991, p. 145) argues:

> Capitalism was made possible by the raiding of stored wealth, the reorientation of trade routes, the imposition of unequal exchange, the forceful movement of millions of people in world space, and the conversion of the people and territories of whole continents into colonies where all spheres of existence were subject to the purposes of the Europeans.

And Rodney (1982, p. 180) concludes:

> **European capitalism achieved more and more a social character in its production. It integrated the whole world; and with colonial experience as an important stimulus, it integrated very closely every aspect of its own economy – from agriculture to banking**. But distribution was not social in character. The fruits of human labour went to a given minority class, which was of the white race and resident in Europe and North America. **This is the crux of the dialectical process of development and underdevelopment, as it evolved over the colonial period** (Emphasis added).

Whilst earlier colonialism could be described as pre-capitalist, the later European phase is distinctly capitalist. The colonial violence had a distinctive epistemic aspect, which actively downgraded culture, ideas and value systems of the colonised peoples whilst actively promoting the coloniser's systems of representation. A key feature of this was the restructuring of the institutional structures, processes of education[1] and the production of literature which actively mediated between the real and the imaginary[2] and left little space for the colonised to call anything their own (Cesaire, 1972; Said, 1993; Viswanathan, 1990). As a result, the colonisers invariably began from the premise that their civilisation and culture represented the very pinnacle of the best that was possible for human societies to achieve. Consequently, the discourse of colonisation was based upon the assumed cultural superiority of the "West over the Rest," with the western notions of economic progress and liberal democracy frequently providing the benchmarks against which other cultures were supposed to measure their sense of being (Hall, 1992). The assumed superiority of the west continued to be promoted by a variety of discourses that sought to naturalise differences between the familiar "us" (Europe) and "them" (the Orient, the Other) (Said, 1978). Many of the anthropological studies, arguing on the inferiority of the colonised people, rested upon crude caricatures of indigenous history and assumptions. It was assumed that the non-Europeans were backward, primitive and different from the people of the Western world. Fanon (1967, p. 18) argued, "The colonised people are not simply those whose labour has been appropriated, but those in whose soul an inferiority complex has been created by the death and burial of its local originality."

Therefore colonialism sought to operate at both the conscious and the unconscious levels, providing images of people's identities, culture and their domination (Said, 1993). Capitalism could indeed be referred to as the midwife that gave birth to European colonialism. However, as for the great majority of the

colonised peoples, they were not only economically exploited, but also politically oppressed and culturally degraded (Garvey, 1916).

As a result, the dominant-dominated relationship (between the coloniser and the colonised) that prevailed during occupation created in the latter a sense of helplessness, dependency and a feeling of inferiority before the dominant coloniser and in the former a false sense of superiority (Memmi, 1960). Basically, colonialism and capitalism imposed a condition of servitude and despotism on colonised peoples. Indeed, colonialism and capitalism are the very antithesis of the liberal credo – peace, freedom, economy – and brings with it horrendous consequences for peoples of the dominating and dominated countries alike. Thus, colonialism and capitalism have combined to give rise to cultural imperialism in the colonised societies.

3.2. Cultural Imperialism

Cultural imperialism is a critical discourse, which operates by representing the culture whose autonomy it defends in its own dominant colonial cultural terms (Said, 1993). It is the extensive and strategic use of political and economic power to exalt and spread the values and habits of a Western culture at the expense of a native (original) culture (Tomlinson, 1999). As Cox (1964, p. 95) puts it:

> Cultural imperialism rests ultimately on the specific colonialist and capitalist use of superior power among developing peoples. It is here that the colonialist and capitalist use of the persons and property of others, in the interest of domestic enterprise may be observed in its purest form; that is, the "distinctive parasitic" relations of capitalist groups to developing peoples.

As a result, cultural imperialism provides an organising concept for the descriptions of the particular way of life of a collectivity. In order for cultural imperialism to be actualised, the contemporary Western capitalist political domination, as well as the economic exploitation of the developing countries, requires continuous hegemony or domination (Modelski, 1979). The concept of cultural domination means that after the use of brute force facilitated the occupation of targeted territory and the people within it, the imperialist colonisers moved easily to the position of establishing a justification for colonial socio-political and economic rule (Cox, 1964). The imperial system so established would continue to be justified as a system of government over-lordship involving a binding moral duty, which could eventually shape the worldviews of the colonised (Lindsay, 1981). In order to achieve the above objective, the colonialists and the capitalists had made efforts and carried out policies that helped spread, among the colonised, their cultural symbols (Fanon, 1967). The capitalist Western colonisers' export and diffusion of

cultural symbols does not in any way underdeveloped his ongoing development. On the contrary, a cultural symbol strengthens the exporters' domination grip of the colonised and often underdeveloped the vitality and the functioning of the colonised's own cultural symbols (Alleyne, 1988).

The role of language in this process of cultural underdevelopment in colonised societies is most crucial and decisive (Tomlinson, 1991). Usually, the occupying imperialist introduces the use of its language in its colonies in many important sectors like education, administration and environment. The extent of linguistic colonisation can go from a marginal use to a total use of the occupier language in those three sectors of the colonised societies. With the wide diffusion of the coloniser's language, the scene was set for an extensive spread of other cultural symbols among the people under occupation.[3]

Accordingly, the main institutions of the colonised societies were used as instruments of indoctrination of the coloniser's myth of superiority. Through the coloniser's control of the media, education, churches, and the legal system, the values of the dominant class and the colonial rulers were inculcated into the colonised population (Post, 1978, p. 144). Thus, all the coloniser's ideological tools, as well as a pragmatic appraisal of the advantages of being white, meant that mythology[4] of the racial hierarchy might possibly have been internalised by the colonised (Lindsay, 1981). The colonised came to believe that the socio-political, economic and cultural attributes associated with people of European descent were inherently more valuable than those linked with those of their original descent (Anderson, 1998). The internalisation of the white supremacist mythology led to an appropriation of the coloniser's ideology as that of the colonised (Anil, 1968). The original history of the colonised was internalised and the so-called intellectual, cultural and social inferiority of the colonised was generally accepted (Anderson, 1998; Jackson, 1985). Different oppositional discourses were employed to normalise the subjectivity of colonised peoples in order to make them feel that their situation of exploitation, domination and the resultant cultural dependency were indeed normal and real (Fanon, 1967). The above exploitative and dependent relationship between the coloniser and the colonised further became sustained in the post-independence colonised societies under the current phase of the capitalist world system that we know as globalisation.

3.3. Globalisation and Capitalism

Globalisation is the intensification of worldwide social relations which link distant localities in such a way that those local happenings are shaped by events occurring many miles away and vice versa (Giddens, 1991). This is

a dialectical process because such local happenings may move in an obverse direction from the very distant relations that shape them (Hirst & Thompson, 1996). In the context of emerging economies, it is an international exploitative trading arrangement through which mostly the developed capitalist world, with the support of western institutions,[5] accumulates wealth by extracting surpluses from mostly the developing world under the guise of international trading relationships (Gosovic, 2000; Sklair, 1995). As Lall (1981, p. 7) describes globalisation in the context of developing economies:

> Globalisation as it relates to the developing nations is an unequal relationship in which the evolving social, political and cultural systems of most developing countries have been strongly influenced by those of the developed capitalist countries in the course of accumulation and extraction of surpluses from these nations. **The strong nationalist sentiments notwithstanding, these influences are continuing to grow stronger** (Emphasis added).

The issue of cultural dominance and the threat to cultural diversity opens up the broader issue of cultural imperialism: a global culture is in one-way or another liable to be a hegemonic culture (Lall, 1981). Such a hegemonic culture has been aided by the establishment of a hegemonic intellectual culture, which is one of the principal tools used by the developed countries to dismantle and neutralise political and intellectual challenges from the developing countries, in terms of collective action, in the field of development. By the same token, it has served as a major instrument for influencing and shaping national political and economic strategies, and for controlling the initiatives taken by the developing countries in the economic, political, social and cultural spheres (Gosovic, 2000).

In the above context therefore, the idea that certain dominant cultures threaten to overwhelm other more vulnerable ones – what has become known as the cultural imperialism thesis, actually contains a rather complicated and contradictory set of ideas (Tomlinson, 1999). In fact, cultural imperialism gathers in a number of fairly discrete discourses of the domination of the western capitalist world, particularly the U.S.A, over other countries (Tomlinson, 1999), mostly in the developing world (Sklair, 1995). As Friedman (1994, p. 195) argues:

> The discourse of cultural imperialism from around the late 1960s tended to set the scene for the initial critical reception of globalisation in the cultural sphere, casting the process as an aspect of the hierarchical nature of imperialism, **that is the increasing hegemony of particular central cultures, the diffusion of American values, consumer goods and lifestyles** (Emphasis added).

Thus, monopoly and global economic imperialism have grown out of the imperial colonial policy. To the numerous "old" motives of colonial policy the capitalist financier has added the struggle for the sources of raw materials, for the exportation of capital, and for the "sphere of global socio-political, economic, and cultural influence," that is, for the spheres of good business, concessions,

monopolist profits, and so on; in the fight, for economic territory in general (Lenin, 1947, p. 104). As a result, the world economies, in which a multiplicity of political states, each typically focused on a single culture (nation-states), are integrated by a common economic system. However, such a system is exploitative because, while the system continues to develop advanced capitalist societies that claimed to be exporting capital to developing countries in particular, under the acclaimed globalisation, the developing countries to which such capital is claimed to be mostly exported, continue to be underdeveloped (Lall, 1981). Moreover, a further consequence of globalisation is that it blocks the development of an internally articulated, self-expanding economy, particularly in developing countries (Wallerstein, 1979). It creates dependent industrialisation and structures in emerging nations, thereby enforcing cultural imperialism (Peet, 1991, p. 149). Hence, the mechanisms of geo-systemic integration are exclusively economic (Sklair, 1994; Tomlinson, 1999). They are constituted as trading and exploitative relationships between relatively sovereign states and relatively independent cultures (Wallerstein, 1994). These relationships are theorised in two phases of direct and indirect colonisation both compelled by the agency of "transnational corporations" with consequences for the socio-political, economic and cultural affinities of most developing countries, particularly the colonised societies (Lall, 1981; Modelski, 1979; Rodney, 1988; Sklair, 1995). Thus, the transnational corporations have become the developed capitalist world agents of globalisation having consequences on the political economy and culture of most colonised developing countries, by continuing to position the developed capitalist world economies at the expense of the developing economies.

3.4. The Role of Transnational Corporations (TNCs) Under Globalisation

Under colonialism and cultural imperialism, European capital and management, combined with local labour, provided the basis for tapping the natural resources of most colonised countries for trans-shipment to Europe (Rodney, 1982). The colonised economy during that era was an extension of the economy of the coloniser and was totally dependent on "transnational capitalists," mainly from the coloniser's home country (Mintz, 1861).

However, in the era of post-colonial indirect economic colonisation, or neocolonialism, control is not of the direct, concrete type found in the colonial past. Rather, it is mediated through the means of communication, technology and cultural transfer, linking the two centres to each other. The control is less concrete: it is not a physical presence, but a link made through the arms of a state; and this link takes the shape of international organisations (Modelski, 1979,

p. 168). The international organisation has certain permanence, often with physical headquarters and a lasting general secretary in the so-called mother country. But above all, it is a medium in which socio-political and cultural influence can flow, with both centres joining as members and finding each other (Sklair, 1995).

The post-colonial foreign influence is not confined to economic spheres, but extends to cultural, educational, legal and political spheres (Lall, 1981). As a result of their comparatively high wage scales, induced in part by their use of capital-intensive production techniques, TNCs make their employees direct beneficiaries of their investments. Hence, employees develop vested interests in the existing international system and have much in common with their employers. Moreover, the transnational capitalists foster the development of groups such as strata, classes, "comprador bourgeoisie" or labour aristocracy, military, intellectuals and some working-class sectors whose interests and activities are consonant with their own (Biersteker, 1981). Each of these groups can be affected and influenced, because the transnational capitalist links them to the international economic system (Sklair, 1995). Although no direct domination is necessary, it is sufficient to assume that the peripheries/developing countries inherit and propagate the system used in the centre/western developed countries (Sklair, 1995). Thus, it is essential to admit the existence of some internal forces, which make for an increasingly global capitalist mode of production and for a long-term integration of the local economy with the world capitalist system (Lall, 1981, p. 6).

However, these internal forces have resulted in the public policies of most developing countries being a response to the political manoeuvring of influential internal and global groups pursuing their own economic goals (Nettleford, 1978). These groups, which represent the interest of mostly global TNCs locally, are sometimes very influential in socio-political and economic decisions in most developing countries. In taking the economic policy decision therefore, the local representatives of the TNCs exert pressure on the government to adopt a "global economic policy" of maximising foreign capital inflows from international organisations whose interest they represent (Demas, 1976). The colonially oriented politicians, who also rely on the local representatives of the TNCs to generate revenues required to run the society, are in most cases forced to adopt the policy option of their financiers. This is by approving the policy of maximising foreign capital inflows (Lall, 1981), and even to minimise local interference in the sectoral allocation of these investments (Girvan, 1971). Consequently, most of the actions of the local politicians have the effect of reinforcing dependence, with adverse consequences on the socio-political, economic and local culture (Demas, 1976).

The consequence of this dependency is that the local economy of most developing countries with the presence of the TNCs entered an international system of production, marketing and distribution in unequal terms. As these will

all be operating in the interests of the foreign global capitalists and the local global capitalist elite and virtually closed to the comprehension and creative reach of the natives (Modelski, 1979). In order to continue to safeguard its continuous appropriation of surpluses from the local economy, the TNCs also help the local society by encouraging internal stability, which could also be essential for them to pursue their capitalist expansion ambition. In some cases, the TNCs give politically popular types of aid to existing governments to prevent internal disorders, and by giving financial support to economies where otherwise the situation would seriously worsen, and may consequently disrupt their own production activities. Consequently, the transnationals can articulate ideologies that stress the indispensability of political, social and cultural stability, discourage nationalisation, and in general tilt the balance towards international capital (Sklair, 1995). As Banfield (1963, p. 65) puts it:

> The transnational corporations try to promote the national security of the local society in order to transform fundamentally the cultures and institutions of the local society. **Such transformation seeks to achieve the purpose of bringing influence to bear directly either upon the governments of the countries concerned or upon their public opinion** (Emphasis added).

Thus, the internal capitalist forces within the developing countries have been the ingredients that have aided the capitalistic expansion and exploitative activities of the TNCs in most developing countries. Consequently, the activities of the local global capitalists have in most cases given the TNCs the opportunity to substantially influence the socio-political environment, the local culture and institutions of most developing countries. As Harrison (1988, p. 98), summed up the activities of the TNC's in mostly developing countries:

> The transnational companies, in particular, are commonly regarded as the main agents of neo-colonialism, in that they are a vital mechanism in the transfer of surplus from the periphery, or semi-periphery, to the centre. **World systems theorists regard them as the epitome of capitalism and imperialism, having disastrous colonizing effects on the development potential of the developing nations. They are the prime carriers of capitalism** (Emphasis added).

However, the development of the accounting profession in developing countries especially, has occurred within these contexts. Accounting in the developing world, as we know, was originally organised to facilitate capital transfer by the colonisers/capitalists from the periphery to the centre in the first instance. This flow of capital was continued, through the establishment of relations with local elite capitalists who share the same ideology with the colonialist and capitalists in most developing countries. In addition, the flow of capital became sustained after the independence through the institutionalisation of transactional corporations,

transnational accounting firms and transnational accounting professional bodies in former colonised developing countries.

4. CULTURAL IMPERIALISM, GLOBALISATION AND THE DEVELOPMENT OF THE ACCOUNTANCY PROFESSION

Most colonised countries were already unequally integrated into the capitalist world system during colonisation Not being active agents of their societies had meant that most colonised countries had inherited the coloniser-capitalist legal framework and accounting at independence (Okike, 1994). After decolonisation, the American hegemony has taken over from the European colonisers hegemony, as huge investors in most colonised developing economies. Hove (1986) observed that colonialism had significant consequences for the accounting practices and profession in the colonised countries. Along the same reasoning Lee (1987) also noted that globalisation, equally has consequences for the accounting practices and profession in developing countries. These historical influences suggest that these countries could be better served with a relevant and appropriate historical theory of accounting (Ndubizu, 1994). Johnson and Caygill (1971, p. 167) remark:

> There is little argument that the accounting profession in developing countries **is a product of particular historical and cultural circumstances and influences in whose development it has played a significant role** (Emphasis added).

Reflecting on the influence of the colonisers upon the colonised countries, the president of the Institute of Chartered Accountants of England and Wales noted in 1956 (Cited in Johnson & Caygill, 1971, p. 160):

> Anyone who examined the history of the profession in almost any country in the world **cannot fail to be impressed by the major part played by chartered accountants from the United Kingdom in the world development of the profession** (Emphasis added).

Colonialism and the influence of transnational corporations are perhaps the most effective vehicles through which accountancy frameworks of the developed capitalist countries were exported to the developing countries (Seidler, 1969). As Faint (1982) notes, just as the Roman legions carried the language and culture of Rome northward and westward through Europe, western capitalism is carrying its business practices into the developing countries. Thus, Briston (1973, pp. 104–120) observes:

> In a number of countries, of course, the British influence is very long standing, and **almost all of the colonial territories in which any substantial degree of industrial development took**

> **place under British rule will have had imposed upon them a British Companies Act with the usual reporting and auditing requirements** (Emphasis added).

Despite the above socio-historical evidence, in the accounting literature, the use of the frameworks of imperialism and globalisation as the lens through which to guide the investigations in accounting development in colonised countries has not received considerable attention. However, work on the development of accountancy profession in developing countries has examined how colonial and transnational influences have played major roles in the post-independence development and shaping of the accountancy profession (see for example, Annisette, 1996; Bakre, 2001; Briston, 1973; Perera, 1989; Wijewardena & Yapa, 1998). Perera (1989, p. 141) observes:

> An examination of the accounting development pattern of most developing countries reveals that they had little chance to evolve accounting systems, which would truly reflect the local needs and circumstances. Their existing systems are largely extensions of those developed in other countries, particularly the Western capitalist countries, such as the U.K. and U.S.. **These systems were either imposed through colonial influence or by powerful investors or multinational corporations** (Emphasis added).

In Trinidad & Tobago, Annisette (1996) describes how in a relatively short space of time after its independence the influence of cultural imperialism and globalisation have succeeded in transforming the Institute of Chartered Accountants of Trinidad & Tobago from what was intended to be an indigenous Institute (TTACACA, 1969) to one which by its own self definition had become an agent of the U.K.-based ACCA.

Briston (1973) describes how the deep influence of cultural imperialism has made the post-independence accountancy development in most developing countries, particularly Nigeria and Sri Lanka to continue to blindly emulating the British principles and systems. He argues that these principles and systems have already been shown to be of dubious relevance for the present-day U.K. economy. He concludes that they are, therefore, most unlikely to be appropriate for the entirely different social and economic environments of the developing world.

The above argument further suggests that an empirical research in accounting in most colonised developing countries, particularly the Commonwealth, need to be understood in the context of a number of influences. These primarily relate to colonialism and cultural imperialism,[6] the colonised developing world's unequal positioning in in the capitalist world system since its "integration" via colonialism up until the contemporary form of capitalism, globalisation.[7] Combined, there is a stronger capacity to illuminate the emergence and development of the accountancy profession in the colonised developing countries. Such a theoretical framework is also helpful in understanding the struggle between the two elite

groups of local and global capitalists for the control of the accountancy in the transition of the accountancy profession from the colonial era to the colonised countries independence and beyond, by emphasizing the continuities and discontinuities.

5. STRUGGLE BETWEEN THE "LOCAL" AND "GLOBAL" CAPITALISTS ELITE GROUPS FOR THE CONTROL OF THE ACCOUNTANCY PROFESSION IN THE BRITISH COLONIES

It has been consistently argued in this paper that the study of professions particularly, accountancy will not be properly understood outside socio-economic and political history that has given rise and continue to shape its development in the various environments.

The activities of these professional bodies were marked by internecine conflicts and organisational fission as new bodies emerged and attacked the privilege of the established associations (Johnson & Caygill, 1971). These professional bodies were operating in these colonies with the protection of some draconian legislation put in place by the colonial administrators to facilitate the imperial purpose of extraction of resources and finances and the transfer of capital gained thereof. The colonial administrators did not take kindly to altering this relationship or to changing the direction of the flow of capital in any form. To protect its own interests, these legislations disallowed the participation of the local accountants in the practice of accounting as a profession (Rattray, 1961). In fact, the law prescribed which of the U.K. professional bodies can legally carry out public practice in the colonies. This situation had led to the emergence of elite struggle between the U.K. professional bodies on the one hand and the local and foreign professional bodies on the other hand. Within this struggle had emerged two major elite groups of global or colonial capitalist professional bodies, who did not favour the opening of the profession for the local participation. The Accountants (1927, p. 710) expressed the view of the colonial/global capitalist elite group in the specific case of the struggle between the local and global capitalist elite groups for the control of the Australian accountancy profession thus:

> It is undesirable to open the profession to be invaded by Orientals. The proposed suggestion will have the effect of commencing the dilution of the profession with Orientals . . . **In one hundred years time we shall see a coloured gentleman taking this Chair** (Emphasis added).

On the other hand, the local capitalist elite group shares the view that the native colonial members participation in the practice of the profession should as much as

possible, be encouraged. As The Accountant (1903) puts forward the view of this group:

> **It is, we think, absolutely essential that some means should be found of enrolling native colonials as members** instead of depending entirely upon emigrants from the United Kingdom to maintain the supremacy of the Institute abroad (Emphasis added).

In continuation of the above struggle, the six foreign societies who constitute the London Accountants had formed themselves into a Trust. According to Johnson and Caygill (1971, p. 197) the chief duty of the London Trust is:

> To promote legislation for the exclusive benefit of its own members and the subordinate bodies which it controls in every British possession where it deems it expedient to attempt it, **its modus operandi being to first obtain control of the local society and thereafter use it as a "medium" for promoting legislation for its own benefit** . . . (Emphasis added).

However, soon after successfully using the local capitalist accountants in the various colonies to achieve monopoly of accountancy practices for its own benefit, the society (global capitalist) began to experience reversals in its imperial policy. These were associated with the rise of professional nationalism in the various colonies. The rise in professional nationalism has in turn necessitated registration. Thus, registration movements were increasingly linked with growing "nationalist" sentiments in the former British colonies of the Commonwealth. These registrations were all, in part, informed by "nationalist" sentiment associated with independence and they all operated to exclude outsiders (Johnson & Caygill, 1971). However, the "nationalist" reactions against metropolitan accountancy were viewed as serious obstacles to the expansion of trade by the metropolitan associations, which would not only affect the interests of British Accountancy firms, but the economy of the empire. "In 1908, The Accountant warned that, the tendency (to deny that it is reasonable for a qualified British practitioner to practice in all parts of the British dominions) must seriously interfere with the flow of capital from the mother country . . ."

This justification of an argument for the free movement of accountants is still a major factor on relations between accountancy bodies throughout the colonised societies, following the warning uttered by the Society in 1940 of, ". . . The evils that can ensue when capital invested in a foreign country is deprived of the means which it chooses to verify the manner in which that capital is administered." The major factor ensuring such a protection in the face of professional nationalism in the colonised societies has been the growth of international accountancy firms who work through locally qualified partners, associates and employees, and continue to impose the wishes and aspiration of colonial and global capitalists on the local economies mostly in developing countries.

Paradoxically, after the independence, the aspiration to obtain total independence for the participation of the local people in the profession has again been characterised by conflict of identity and interest within the colonised people of the various colonised societies. The colonial legacy has resulted into tensions and organisational fission, deriving from conflicting demands for local independence and professional "nationalism" on the one hand, and the prestige of British approved qualifications on the other. This has further led to re-emergence and consequent struggle between the two elite groups of "local" and "global" capitalists for the control of the post-independence accountancy in most formerly colonised countries of the Commonwealth in particular.

6. POST-INDEPENDENCE STRUGGLE BETWEEN THE LOCAL AND GLOBAL CAPITALISTS' ELITES FOR THE CONTROL OF ACCOUNTANCY IN THE FORMER BRITISH COLONIES

During the period of colonisation, a power bloc gradually developed which had the ultimate legal authority in the colonised societies, and provided the overall management of commercial and political relations with the empire (Keith & Keith, 1988). This power bloc consisted almost exclusively of European administrators and merchants, who took a dominant position in the empire economy. Their managers also became important elements within the power bloc. The colonised did not have any say in this power bloc, which took decisions that affected much of the daily activities of the colonised.

Only as independence approached, did the colonised, mainly those who held critical administrative posts, gain an important place in the bloc. Given their political strength and their role in establishing the post-independence colony, they were able to force the Europeans to bargain with them for a share of power in the local socio-political and economic development (Keith & Keith, 1988). This has placed these colonised people in positions of power, making them an influential elite group in a given colonised society, particularly after their independence. While this elite group may be united in its subordination to the cultural values of the coloniser during colonisation, the post-colonisation era has witnessed divergence and conflict of interest within the elite group (Mills, 1956). This was due to the re-emergence of some global capitalist elites who preferred to remain collaborators of the foreign global capitalist, and the local capitalist elites who are opposed to the onslaught of the global capital on the local capital after independence (Mills, 1956). Such re-emergence and the ensuing conflict of interest has had, and continues

to have, consequences for the post-independence socio-political and economic development of most developing countries (Hall & Du Gay, 1996). Thus, Petras et al. (1981, pp. 38–39) argues:

> In most colonised developing countries, the struggle against imperial domination and economic exploitation **is now mediated through a class structure that itself contains contradictions, that is, is itself a source of exploitation** (Emphasis added).

Immediately after independence, the few colonised who had working relations with the colonial power bloc had constituted the local empire bourgeoisie. The positions of the local bourgeoisie were based on wealth earned through commerce and ownership of property as a result of their long relationship and association with the colonial power, and other foreign global capitalists. Later in the post-independence era, the occupational group dominated by these influential members of the elite contributed to a further expansion of the bourgeoisie. Thus, in his history of the capital accumulation of a domestic bourgeoisie, Leys (1978, p. 216) believes that:

> Capitalist production relations may be considerably extended in a periphery social formation, and the productive forces may be considerably expanded within and through them, **for reasons having primarily to do with the configuration of class forces preceding and during the colonial period** (Emphasis added).

Increasingly, members of the bourgeoisie, within a society or particular occupation in the society, have sought to pursue a policy that will enhance the expansion of capitalism, within which their own personal interest seems protected. Such activities of the global capitalist collaborators in allying with the colonialist and the foreign global capitalist in the post-independence neocolonialism era for capital accumulation have always met with resistance from the local capitalist elite. As Petras et. al. (1981, p. 126) also observes:

> The post-independence national capitalist forms a strategy of class alliance with imperial firms in intensifying surplus extraction from the labour force through a variety of post-independence working relationships under the rubric of dependent neo-colonialism for capital accumulation.

In the above context therefore, in a given post-independence colonised society, the two elite groups that have emerged have different views concerning what ought to be the cultural values of the post-independence society. The first was the influential global capitalist elite group that viewed the society's cultural approach to socio-political and economic development in a relatively dynamic way. This elite group was of the view that the societal culture ought to be shaped by the assimilation of the colonial, and other developed Western capitalist, culture, and the identity ought to be a product of various negotiations. As Hall and Du Gay (1996, p. 57) put it:

> The group is of the opinion that cultures that have provided the horizon of meaning for large numbers of human beings, of diverse characters and temperaments, over a long period of time . . . **are almost certain to have something that deserves our admiration and respect** (Emphasis added).

These elite are those whose lifestyle have been and continued to be shaped by their colonial past and, therefore, prefer to continue to defend the status quo, and would do anything possible to sustain their position within a given society, association, or occupation. This elite group mediates between their people and the principal capitalist institutions, the colonial power bloc, and other foreign global capitalist group. Although the main objective of the elite is to pursue and protect its own economic interest within the society, association or occupation, in the process, the colonial powers and foreign global capitalists used them as imperial agents to consolidate the imperial economic interest locally. Thus, post-colonial imperialism, or alternatively, neocolonialism, expands (and survives) with the growth and incorporation of the collaborator groups. As Petras et al. (1981, p. 18) further argue:

> In fact, the strength of the imperial system in large part rests on the influence and control exercised by the collaborative classes and strata within imperialist society. **The collaborator classes are oriented toward capital accumulation by continuing to defend the status quo, through the use of their influence to repress class conflict** (Emphasis added).

The global capitalist elite retain advantages despite the advances of democratic thinking. The elite continues to pursue policies that reflect its own worldviews and which serves its special interest, and the interest of the former colonial powers and other world capitalist economy (Prewitt & Stone, 1973).

However, as the emphasis on large numbers and long periods, was out of time with the modes of recognition of minority or marginalised cultures, such non-recognition and marginalisation might eventually lead to cultural conflicts. Accordingly, the second category of the influential elite group within the society, association or occupation, was the local capitalist elite group, who felt that it was high time the colonial legacy be put behind them, while they keep on searching for a new and challenging life that is necessary for an independent society (Keith & Keith, 1988). This is the opposing group in the society, association or occupation, with the further view that there was a need to find a new compromise. Such a compromise would not sacrifice the local culture, but would give the society a new identity in changing times. As Ozal (1992, p. 310) puts it:

> This group is of the view that the days of imposing one's own elitist values on the masses are over. Values, which have been borrowed in a wholesale manner in the guise of universalism and expressed in a foreign or at best in hybrid idiom . . . **In no way does this approach, deny**

> **the universal features of culture. It only emphasises that no people can be creative unless it draws its strength mainly from its own cultural heritage through an intensive updating and upgrading of effort** (Emphasis added).

Thus, within a given society, association, occupation or profession, elite factions do exist, there are conflicts of policy, individual ambitions do clash (Mills, 1956). The above colonial and global influences were as a result of the relationships between the colonisers/western capitalist world and developing world during and after colonisation. These kinds of internal conflicts of identity led to a situation where, at independence, even after each former British colony had made commitment to its post-independence government and society of evolving accounting education and profession relevant to its socio-political and economic requirements, most political and economic elites were incapable of carrying this through. Instead, what one finds is that development of the accounting profession in almost all the former British colonies have been a strict emulation of the colonial British principles and systems.

For example, in Nigeria, Okike (1994) reports that the Institute of Chartered Accountants of Nigeria (ICAN)[8] and the Association of National Accountants of Nigeria (ANAN)[9] have continue to struggle for the control of the profession in Nigeria. The ICAN, dominated by the U.K.-based ACCA qualification holders, has continuously come under attack of continuing to use the colonial closure policies to continue to defend the status quo despite its claim of complete independence. As a result the Government of Nigeria, which gave parliamentary, backing for the establishment of ICAN in 1965, has also used Section 2 of the Companies and Allied Matters Decree of 1990 (CAMD) to also give the same backing for the establishment of ANAN to compete the global closure strategy of ICAN.

In Jamaica, there was a struggle between the "Certified"[10] and "Chartered"[11] groups for the control of the profession. The past President of the Institute of Chartered Accountants of Jamaica (ICAJ), Gordon (2000, p. 12), recalls that:

> The road to the establishment of the ICAJ was far from smooth, as the parties involved could not arrive at consensus as to how to proceed. **The "Certified" group felt that new legislation was necessary, in the form of a Public Accountancy Act to regulate the practice of the profession. Conversely, the members of the Chartered Association were in favour of the English model, which had a special section in the Companies Act to prescribe qualifications for auditors** (Emphasis added).

In Zambia, despite the pressure for local examinations coming from the local capitalist elite strongly supported by the government, which is demanding a Zambian profession capable of providing an indigenous source of advice on economic, financial and tax questions, the global capitalist elite still continues to struggle for the control of the profession in Zambia in favour of the U.K.-based ACCA.

In Trinidad & Tobago, Annisette (1996) reports on the struggle between the Nationalists[12] supported by the government and the business community and the local Colonialists[13] supported by the U.K.-based ACCA for the control of the Institute of Chartered Accountants of Trinidad & Tobago established in 1964. On the formation of the ICATT, in the course of the struggle for the control of the ICATT between the "local" and the "global" elite groups in the profession, an influential global elite member of ICAAT, David Law, a Senior Partner of Law and Martinez voiced the following opinion against localisation of the profession with the use of University Education in Trinidad & Tobago:

> **I do not believe that a University grind will produce the type of individual that Trinidad needs** or that should be welcomed into the fraternity of Chartered and Certified Accountants in Trinidad" (Emphasis added, D. Law, Partner Law and Martinez Chartered Accountants; to D. Davis, Chairman TTACACA, June 14th 1965).

The above statement seems to be contrary to the general aims and objective put forward by the council of the Institute (ICATT), for the formation of the national professional body (ICATT), in 1964, which (inter alia) states that:

> With the establishment of the Institute of Chartered Accountants of Trinidad and Tobago, **future training in accountancy would be based on Caribbean experience and Trinidad & Tobago experience in particular, and would be more relevant to the present needs of the country** (Emphasis added, Hansard, 1970, p. 1104).

According to Annisette, despite the efforts made by the nationalists, supported by the government and the business community to put in place the BSc and MSc degrees in accountancy to replace the ACCA, the colonialists, supported by the ACCA has successfully derailed this localisation movement.

Sikka (2000) reports the conflict and deepening of identity in the accountancy profession in Hong Kong, Malaysia, Australia and the U.S.A thus:

> **Member in Hong Kong, Malaysia, Australia and U.S. are demanding more autonomy. Members in Malaysia, for example, have launched two rebel Internet sites**. But the ACCA leadership's response has been only to create an international assembly, a talking shop with no power to take decisions. In the face of rising nationalism and maturity that encourages people from emerging economies to develop their own social infrastructure, ACCA's strategy is limited. It can continue with centralised control and alienate the local memberships, which would probably drift away or be poached by fast developing indigenous accountancy bodies. Alternatively, it can create locally autonomous councils with the prospect that they will, in time, declare independence from London. **Either way, the prospect is that ACCA will splinter** (Emphasis added, The Accountant 2000, p. 14).

Thus, coupled with the externalities of cultural imperialism and globalisation, internal conflicts surrounding the operationalisation of the accounting profession in developing countries have significantly affected its development. What one sees here is how the external has become internal to the point where local bodies and

elite groups have mentally internalised the aspects of colonialism to the point of affecting effective decision-making regarding the development of the profession in most developing countries, especially the Commonwealth.

7. SUMMARY AND DISCUSSION

History is very essential to the understanding of the emergence and development of any profession in most developing countries, particularly the colonised countries. On account of these relationships, it became glaring that the colonised developing countries' history has led to the appropriateness of the adoption of the historical theories of cultural imperialism and globalisation, as the frameworks, to investigate the emergence and development of the accountancy profession in these emerging nations.

In developing these theories, it was argued that colonialism and capitalism, have given rise to cultural imperialism. Cultural imperialism on the other hand, appears to have imprisoned the minds of the colonised by imposing upon them stern negative sanctions against their expressions of independent thought and creative, self-generating and self-governing actions. As a consequence, the colonised have internalised the myth of inferiority of their own initiative and ability to search for relevant socio-political and economic growth and development required in their independent societies. Instead, the colonised share the views that the best human can achieve is whatever that is available from Europe and America.

After independence, in order for the exploitation to continue, the developed capitalists' world has changed the paradigm from colonialism to globalisation, which is, essentially another name to describe the current characteristics of post-colonial modern economic imperialism. In this context, globalisation has become a post-colonial instrument at the disposal of the former colonisers and capitalists to continue to position their economies in the economic environment of most developing countries. This is achieved through the transnational corporations acting as agents of neo-colonialism and facilitated by local elites. However, this is achieved through the consent and cooperation of the local collaborators, who share the same worldviews, ideology and lifestyle with the TNCs and are very powerful and influential locally. In doing so, the TNCs have successfully further integrated the local economies of most developing economies into capitalist world system. This operates mostly to the advantages of the TNCs and their home countries, and primarily to the detriment of the economic growth and development of most developing countries.

In the specific case of the development of accountancy, the continued desire for capital accumulation and capital expansion has led to the activities of the

various colonial professional bodies operating in the former colonies to have been characterised by conflict of interest, tension and organisational fusion. This conflict has led to various struggles for the control of the accountancy profession by various metropolitan colonial professional bodies. These bodies adopted imperial policies to attract members, money and influence in the empire. After flag independence, the influence of colonialism and globalisation on the colonised, have, again, led to the same colonial struggle re-surfacing in the post-independence development of the profession in most colonised countries.

Cultural imperialism and globalisation have resulted into the emergence of two elite groups of "local" and "global" capitalists with conflicting identities in most formerly colonised countries. On the one hand, while the local capitalist argues against the onslaught of the global capital on the local capital, on the other hand, the global capitalist elite argues in favour of the onslaught of global capital on the local capital. This therefore suggests that the prime concern of the two sets of elites are capital accumulation and over who gets what and how much. Rather it is a case of whether the "local" or "foreign" capital is to dominate a particular post-independence colonised society. This continues to have consequences on the development of the accountancy profession that emerged in most colonised countries after their respective independence.

The discussion here has substantiated that any analysis of the emergence and development of the accountancy profession in the developing world has to be undertaken with critical consideration of the impact of colonialism on the nature of the profession. The location of the developing countries as former colonies has also meant that their integration into the capitalist world system has been far from equal, and if anything, it has been exploitative. Furthermore, examination has shown that cultural imperialism as a distinct category within the problematique of imperialism has affected the way in which the accounting profession has developed both before and after independence of the developing countries. Globalisation, as the current phase of the capitalist world system, has intensified these relations in a negative way. If one wants to give a full picture of the situation in which the accounting profession exists in developing countries, arguably, it is incongruous to analyse or base empirical research in accounting without historically locating it.

NOTES

1. Thus British emissaries to India were charged to "teach the natives of India the marvellous results of the employment of labour and capital" (Adas, 1989, p. 284).
2. Such an insight is not new. Plato was one of the earliest exponents of this.
3. The colonised were also exposed through Christian missions to the Christian religious beliefs, which would have enforced their eventual conversion (Rodney, 1982).

4. Manipulative devices which helped to defuse many of the fears, traumas and anxieties which were all times inherent in the colonial situation.
5. The World Bank, the International Monetary Fund (IMF), the United Nations, and all its offshoots.
6. The theory of cultural imperialism may be used to illuminate the social history of all the colonised developing countries, from their establishments as colonies to the period when the coloniser's business people started exporting their capital to these colonies. It also illuminates the subsequent exporting of the coloniser's legal framework, and the framework of accounting technology to sustain coloniser's governance and capital in the colonies.
7. The activities of the transnational corporations, which became giant investors in most of the former colonial economies after their independence, have also helped to sustain and subsequently shape the colonial economies after decolonisation.
8. Represented by the "Global" and "Colonial" capitalist Elite group in the profession.
9. Represented by the "Local" capitalist Elite group in the profession.
10. Represented by the "Local" capitalist Elite group in the profession.
11. Represented by the "Global" capitalist Elite group in the profession.
12. Represented by the "Local" capitalist Elite group in the profession.
13. Represented by the "Global" capitalist Elite group in the profession.

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THE IMPACT OF ACCOUNTING ON THE DEVELOPMENT OF WRITING AND NUMBERING AND THE CORRELATION TO PIAGET'S EXPERIMENTS

Sidney J. Baxendale and Archie W. Faircloth

ABSTRACT

Over ten thousand years ago the needs of society to be able to account for economic transactions led to the development of accounting tokens made of clay. In a world in which writing and numbering had not emerged, the attributes of the economic transactions had to be represented by shape and size, as well as incised markings. Changes in the accounting system coincided with changes in the social structure and economic advancement.

These tokens were the genesis of writing and numbering. The use of pictographs led to a large variety of signs; finally, when the signs assumed a sound value in addition to the commodity, writing and speech were united. The tokens also provided the necessary seriation and one-one correspondence necessary to develop counting as well as higher cognitive structures.

This article compares the archeological evidence regarding the development of the tokens to the theories and experiments of Piaget, concerning the development of numbering and cognitive structures.

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Archeological evidence indicates that changes in society led to the need for accounting systems which eventually developed into numbers and writing. In the eighth millennium B.C. plain tokens coincide with farming. These early tokens stand for units of cereal and animals, indicating that agriculture and the domestication of animals played the predominate role in the first accounting. Between 3500 and 3100 B.C., complex tokens evolved to satisfy the needs of a more powerful economic institution documented by monumental architecture, measures, seals, and taxation. The tokens stand for finished products of urban workshops, processed foods, and luxury goods.

Around 3100 B.C. incised pictographs evolved and concrete counting was replaced by abstract counting. That is the product and the number were finally disassociated. Changes in social structures and economic transactions created the need for accounting and accounting changed as these structures and transactions continued to change. Temple and palace administrations required accounting to control resources and people. The archeological evidence reveals the obvious link between accounting, society, and the organizations that exist within society. This link and a comparison of how writing and numbering evolved to the theories of Piaget concerning mathematics and cognitive structures is the focus of this article.

METHODOLOGY

The archaeological literature was examined to find articles related to the development of token systems that were used in the Middle East to account for economic transactions. The accounting literature was examined to find articles that had been written related to these tokens. Finally, the writings of Piaget were examined to find articles related to the development of writing and numbering skills.

ARCHAEOLOGICAL FINDINGS

The earliest sites to yield tokens are in Syria and Iran. The geographic distribution along the fertile crescent indicates that the recording practices coincided with plant and animal domestication. Tokens have been found in sites as far west as Beldibi, in what is now southwestern Turkey, to as far east as Chanhu Daro in what is now Pakistan. At Tell Mureybet, Syria when the occurrence of the tokens occurred, fields had been cultivated, population had grown, obsidian trade had increased, and there was an accumulation of wealth, animal husbandry, and the storage of food. Obsidian was acquired through trade except at Jana Dara, Iran. Based on

the evidence, the token accounting system was widely used throughout western Asia from as long ago as the ninth millennium B.C. to as recently as the second millennium (Schmandt-Besserat, 1978).

About 8000 B.C., tallying in one-to-one correspondence was superseded by tokens of many shapes suited for concrete counting. Finally, writing emerged as the main outcome of abstract counting, taking off when abstract counting dissociated the concept of numbers from that of the commodity accounted. Each change of reckoning device – tallies, plain tokens, complex tokens – corresponded to a new form of economy: hunting and gathering, agriculture, industry. Each change of reckoning device also corresponded to a new political system: egalitarian society, rank society, the state. Pictographic and phonetic writing, however, ca. 3100–3000 B.C., was independent of any socioeconomic event. It was the outcome of a new threshold in cognitive development – abstract counting (Schmandt-Besserat, 1996, p. 122).

Carbon dates indicate that the token system evolved as follows:

ca. 8000–3500 B.C.: Counters of multiple shapes indicate a system of concrete counting; each category of goods necessitated a special type of counter. For example, jars of oil were counted with ovoids, and measures of grain were counted with cones. Numbers were indicated in one-to-one correspondence: three ovoids = three jars of oil.

ca. 3500–3100 B.C.: Markings impressed in one-to-one correspondence on envelopes and tablets show that the notions of product and number were still fused together. This implies that concrete counting prevailed. However, economic advancement, craft specialization, mass production, the emergence of cities, and an expanded trade network, resulted in new shapes and a greater variety of sub-types indicated by incised markings and appliqued markings.

ca. 3100 B.C. (Uruk Iva): Numerals were invented. The item counted and the number were finally dissociated. Each notion was expressed by a special sign, and the goods counted were indicated with *incised pictographs*. These pictographs were no longer repeated in one-to-one correspondence. The number of units was shown by numerals expressing 1, 10, 60, and 360. These were the first symbols expressing numbers abstractly – that is to say, independently from the item counted. These first numerals consisted of *impressed signs* formerly used to indicate measures of grain and numbers of animals which, from then on, carried a new abstract meaning.

ca. 3100–2500 B.C.: Archaic numerations for counting various categories of items still lingered, showing that the transition from concrete to abstract counting lasted for several centuries (Schmandt-Besserat, 1996, p. 124).

Most of the complex tokens found in the large centers of the fourth millennium B.C. stood for finished products, such as bread, oil, perfume, wool, and rope, and for items produced in workshops, such as metal, bracelets, types of cloth, garments, mats, pieces of furniture, tools, and a variety of stone and pottery vessels (Schmandt-Besserat, 1996, p. 83). “The development of complex tokens also coincided with the first monumental architecture (the rise of a state government). Most of the envelopes bear an imprint from one to four different seals representing the possible endorsement of several different parties. The envelopes themselves were marked to reveal their contents. The officers or individuals involved were indicated by their seals, the types of products were shown by an imprint on the token, and the number of units were expressed by a course bonding marking. The markings on the envelope took the place of the token system itself. The substitution of two dimension portrayals of the tokens for the tokens themselves would seem to have been the crucial link between the Araciac recording system and writing. The hollow bullae with their enclosed tokens would have been replaced by inscribed solid clay objects. The use of pictographs led to a larger variety of signs. A final conceptual leap was achieved when the signs assumed the secondary sound value in addition to their primary meaning as commodities. For instance, the sign for oil could also refer to the sound ‘I,’ which was the Sumarian word for oil. For the first time, the signs unified writing and speech. From there on, the signs evolved to become the more and more schematized forms of the cuneiform script” (Schmandt-Besserat, 1979, p. 38).

Tokens were far superior to tallies because a token shape had a specific meaning. Tallies were meaningless out of their context. Tokens had a specific conceptual meaning and were a part of a system. Tokens also showed qualitative data through the shape of the token. The number of units was shown by the number of tokens in a one-to-one correspondence. The evolution was from tallies, to tokens, to marked envelopes, to empirical tablets where the signs replaced the tokens, to pictographic tablets, to writing. This evolution resulted in a mode of accounting that led from one-to-one correspondence to concrete counting, to abstract counting.

“During prehistory, cones, spheres, and disks represented nonstandardized measures of grain . . . such as small basket . . . As a result, the prehistoric units should be assumed to be entirely nonmathematical entities. Until the late fourth millennium B.C., a sphere cannot be considered as a precise multiple/fraction of a cone or disk” (Schmandt-Besserat, 1996, p. 81).

Two methods were devised to store tokens: clay envelopes and stringing perforated tokens. The envelopes were preferred for storing plain tokens, whereas complex specimens were mostly strung. “The major disadvantage of the envelopes was the fact that the tokens were concealed from view. Methods for marking the envelopes include: (1) attaching tokens to the surface; (2) stamping the tokens in

the soft clay; (3) impressing signs with a stick or stylus; (4) pressing with the thumb; (5) scratching the clay when hard; and (6) securing by a string. Token impressions and markings inscribed with a blunt stylus were carried over to the first tablets. They were the beginning of writing. Envelopes, which started as an accessory to the token system, came to transform it in the most unexpected way. They triggered the mutation of the three-dimensional tokens into two-dimensional graphic symbols" (Schmandt-Besserat, 1996, p. 54).

These marked envelopes evolved into tablets. The chronology of the impressed tablets is important because it clearly demonstrates that impressed signs preceded pictography by an interval of about two hundred years . . . It is about 3300–3100 B.C. . . . that the two kinds of writing began to coexist (Schmandt-Besserat, 1996, p. 58). The signs on the tablets are by no means randomly aligned but are organized in hierarchical order. The largest units, placed at the top of the tablets, are followed by lines of signs of decreasing value (Schmandt-Besserat, 1996, p. 61). The incised signs on tablets were more legible than the notations on tokens which should have led to greater accuracy and economy. "The accountants of Uruk Iva, about 3100 B.C., invented the first numerals – signs encoding the concept of oneness, twoness, threeness, etc., pictographs were incised, whereas numerals were empirical, clearly standing out from the text" (Schmandt-Besserat, 1996, p. 118). "The pictographs were never repeated in a one-to-one correspondence to indicate the number of units involved . . . instead, the pictographs were preceded by a numeral . . . It appears that the impressed signs, while retaining their primary meaning as grain measures, acquired a secondary meaning as numerals. This phenomenon of bifurcation is particularly explicit on tablets where, in the same text, identical signs are used alternately to express grain measures or numerals" (Schmandt-Besserat, 1996, p. 84).

Tokens introduced cardinality and object specificity. Cardinality is the "ability to assign arbitrary tags, such as number words, to each item of a collection implying a group of the notion of sets." Cardinality resulted, therefore, in a considerable economy of notation since thirty animals could be indicated by three tokens instead of thirty" (Schmandt-Besserat, 1996, p. 118). Object specificity required a particular type of counter to deal with each type of commodity. The fact that tokens varied with each commodity counted suggests that tokens were designed to manipulate data within a system of concrete counting . . . (Schmandt-Besserat, 1996, p. 120).

Some token shapes were abstract, for example the cylinder and lenticular disk. The use of these tokens over time may well have led to other abstract thinking, including numbers. Although abstract numbers were invented around 3100 B.C., they did not put an end to the archaic principle of one-to-one correspondence which continued in use until the first millennium. The fact the envelopes existed

for so long (from 3700 B.C. to 2600 B.C.) is evidence of a lack of willingness to give up this inefficient process when it was no longer necessary. "Signs and symbols have a pervasive endurance which makes them withstand time in unique fashion . . . symbols are instituted for the purpose of communication, and any deviation in their use would create miscommunication and confusion" (Schmandt-Besserat, 1996, p. 82).

ACCOUNTING LITERATURE

Mattessich (2000) discussed the evolution of accounting and writing based on articles by Schmandt-Besserat. Mattessich stated that an envelope of tokens "probably functioned as a personal account about a steward or debtor indicating the equity invested in such a person; but simultaneously it was an inventory list detailing this investment. Not always did one token stand for a single piece of commodity; sometimes it represented a specific measure of grain or a jar of oil, etc. Yet those units were only loosely standardized and should not be interpreted in any mathematical sense" (Mattessich, 2000, Chapter 2, p. 77).

Mattessich theorized that complex tokens were a double-entry style system. Mattessich stated that a string of particular tokens represented the equity of an individual. That is, the tokens represented individual assets and, in totality, equity. Mattessich also stated that in many cases this may not have been the equity of an individual but possibly of a family or other small social group, and he hypothesized that, since these aggregates of tokens were found in temple grounds, the entity may have been the temple. This may have been related to taxes levied by the temples on individuals based on farming assets (Mattessich, 2000, Ch. 5, p. 23). Mattessich's case for a double-entry system as early as 3200 B.C. is based on the fact that the contents of the envelopes and the representation on the outside of the envelope represented counter entries. The token on the inside of the envelope represented an asset and the impression on the outside of the envelope represented a part of total equity.

CONCLUSIONS REGARDING ARCHAEOLOGICAL EVIDENCE

From an accounting history viewpoint, it is important to consider why these accounting records were created and who had custody of the records. The fact that the calculi were enclosed in a clay envelope suggests that there was a need to prevent the purposeful changing of the quantities involved in the transaction.

These may have been records of incomplete transactions. For example, a shepherd sells sheep to a butcher, and the butcher agrees to pay for the sheep at a later date. The question that now arises is how many records of the transaction were created and who retained custody of the record or records. The least costly possibility is that one bulla was created in the presence of both the debtor and the creditor, the debtor's (butcher's) seal was impressed in the soft clay of the envelope, and the creditor (shepherd) retained the bulla until the butcher paid him. When the butcher paid the shepherd, the bulla held by the shepherd would be broken by the butcher, and the transaction would then be regarded as complete because there would no longer be any "document" which could be used as evidence for the transaction. Thus, the butcher could be confident that the shepherd would have no evidence to support an attempt to collect the debt a second time.

The problem with that particular scenario is that if this were the only way in which the bullae were used, most of the bullae would have been found in a broken state. Jasim and Oates (1986, p. 350), in speaking of the archaeological evidence at Susa and Habuba (in northwestern Syria), state that relatively few clay envelopes have so far been found broken. The bullae have been found with their contents still intact. If the bullae were used as described above, there would be very few unbroken bullae found. The bullae would have been broken by the debtor when the debt was paid.

The fact that most bullae have been found unbroken suggests that there must be some additional reason that the bullae were created. In a society in which bullae are the only means of creating a permanent record of the transaction, it seems reasonable to assume that the butcher would demand a bulla that was in some way configured to indicate that it was a receipt for payment (a completed transaction) rather than evidence of a partially completed transaction.

The bulla created to evidence the payment of a debt would be retained in a place of safekeeping for an indefinite period of time and the butcher would be interested in keeping the clay envelope unbroken because the bulla could be used as evidence of full payment of the debt only if it could be opened in the presence of an independent observer, such as a court official. This scenario would explain why so many of those bullae at archaeological sites have been found in an unbroken state.

The Bullae Database

In the first stage of recordkeeping in which the bullae had no outer markings indicating quantity, the merchant (butcher) would have had no precise way of storing the bullae to differentiate between multiple transactions with the same creditor (shepherd). If the butcher were forced to prove that he had repaid a debt,

he would have to begin breaking bullae from that shepherd until he broke one that contained calculi representing the exact quantity of the erroneous claim of the shepherd. Of course, this would not have been a suitable solution because the "trial and error" breaking of the bullae would have destroyed the documentary evidence that might be needed to thwart future claims by the same shepherd.

One possible way in which the butcher might have differentiated between transactions with the same individual at different times would have involved making the bullae of various sizes to represent the quantities involved in the transaction. If size of the bullae were a differentiating characteristic representing the quantities involved in the transaction, the butcher could have stored the bullae based on a primary classification that focused on the other person's seal impression in the clay and on a secondary classification that focused on the size of the bullae. Vallat's (1986, p. 336) findings support this view that the size of the bullae may have been a differentiating attribute that was essential for data storage and retrieval.

First Graphic Signs in Response to Database Need

The need for the butcher (or other merchant) to be able to precisely identify the appropriate bullae to counter a non-valid claim for repayment would have been sufficient reason to develop a means of indicating the contents on the outer shell of the bullae. With graphic signs indicating quantities on the outside of the bulla, the merchant would be able to store the bulla in the database and retrieve it more precisely. He would continue to use the seal of the other party to the transaction as the primary classification. However, the quantity indicated on the outside of the bulla would replace the size of the bulla as the secondary classification. The size of the bullae might have continued to be meaningful to distinguish between bullae sealed by the same person and having the same quantity indicated on the outside. In such a situation in which there were repeated transactions with the same person for identical quantities, the more recently created bulla might have been made larger than the previously created one. This difference in size could then be used as a means of dating the document in the database. The combination of seal, quantity markings, and size of the bulla would have permitted rather precise database storage and retrieval of the bulla.

The Move Toward a Cost-Effective Database

The development of graphic signs which indicated quantities eliminated the need for the bullae and calculi. Those graphic signs could now be recorded on a clay

tablet, and the clay tablet could be impressed with the seal of the other party to the transaction. "These different stages in the development of the writing system must have taken place over a relatively short period of time, since examples of all three are found at Susa in the same archaeological level, in the same room, on the same floor, at a time when the archaeological material is stylistically identical with that of Mesopotamia. Identical documents have been discovered at several Mesopotamian sites, and in particular, at Uruk" (Vallat, 1986, p. 338).

Merchants may have had records in the form of bullae without quantity markings, bullae with quantity markings, and clay tablets. The archaeological evidence is not clear whether the storage of all three types in the same room implies that the three types were integrated into one database or if there were three separate databases-one for each type of record. It is interesting to note that the earliest clay tablets were, according to Vallat (1986, p. 336), of two types. One type was oblong, and the other type was rounded. These shapes are in basic conformity with the two different shapes of the bullae. Thus, it appears that even after the use of the bullae was abandoned, there was a need to use the shape of the record to represent an attribute of the transaction. As stated earlier, the shape of the record could have indicated whether the record was a debtor's receipt or a creditor's receipt.

Piaget's Theories

Piaget's theories of developmental psychology have been used extensively in accounting literature and are also appropriate for consideration regarding the development of accounting, writing, and counting. Piaget's theories of the development of conception in children included the logical-mathematical experience. Logic-mathematical experience is related to special properties of subject/object interaction that are not related to the physical properties of the object. An example is that the act of counting is independent of order. That is, if sticks are arranged in a row, they can be counted either from left to right or right to left. If the sticks are arranged in a certain order according to size, then, the order has to be respected. The logic-mathematical concepts discussed by Piaget were the basis for accounting since these concepts are related to subject/object interaction. As accounting procedure developed, a certain order may have been introduced into the "counting system."

Piaget also discussed equilibrium, a "progressive, self-regulating process" that coordinates exercises, physical experience, and experience with the social environment. Developing from a static motion to the motion of "transformation" equilibration leads step by step to a final state of reversibility that characterizes higher cognitive structures. This development would lead to seriation (arrange

in some order), classification (according to quality), and correspondence (one to one or multiplicative). This would lead first to a generalized classification scheme and then to a more complex scheme involving identity, negation, reciprocal, and correlative transformations. As the child continued to develop, Piaget discussed the grouping that occurred within structures that represent the abstractions of the child's "concrete operation." Within concrete operations there are "tendencies to serrate, to classify, and to establish correspondence." The simplest form of correspondence is the one-to-one correspondence, in which an element of one set is placed into correspondence with an element of a second set. Sometimes to achieve correspondences it is necessary to bring into association more than one attribute and hence to achieve what is logically a multiplicative structure-that is, if objects are double classified, say by color and shape.

Mathematical and Logical Structure

Mathematical and Logical Structures
Piaget stated that the group concept is obtained by . . ." 'reflective abstraction' – which does not derive properties from things but from our ways of acting on things, the operations we perform on them" (Piaget, 1968, p. 19). Piaget then discussed the fundamental ways of "coordinating" these operations: uniting, ordering, and placing in one-one correspondence. Positive whole numbers . . . are constructed by means of "operations that stem from ordinary, everyday activities such as the 'matching' to which even very primitive societies resort in their barter transactions, or at which we catch a child at play. It would, in fact, not be difficult to show that in these very early stages intellectual operations grow directly out of sensory-motor coordinations, and that *intentional* sensory-motor acts – the human baby's or the chimpanzee's – *cannot* be understood apart from 'structures' " (Piaget, 1968, pp. 26–27).

PIAGET'S EXPERIMENTS

Piaget's experiments concerning the development of the concept of numbering in a child deals with both continuous (liquid) and discontinuous (beads) quantities. The experiments concerning discontinuous quantities are reported here due to their greater similarity to accounting tokens. The experimental results for the continuous quantities "were exactly the same as for discontinuous quantities" (Piaget, 1965, p.15).

Piaget's experiments regarding discontinuous quantities evaluated the child's perception regarding beads placed in various containers. "Sets of beads, for

instance, can be used . . . they are material for a further global quantification with which children are familiar: that of the length of necklaces made from the beads. The evaluation of this length can thus be used in each case to check the quantification of the contents of the various containers used. On the other hand, when the beads are considered as separate units they can be used in operations of correspondence" (Piaget, 1965, p. 25).

Piaget classified his findings regarding the child's developments into three stages. In the first stage there is no conservation of the sets of beads. "As soon as the beads are poured from one container to another of different shape and dimensions, the child thinks that the quantity increases or diminishes, basing his estimate not on the level of the beads, not on the width of the glass, not on the number of glasses. In other words, as in the case of the liquids, the quantities are estimated merely from perceptual relationships uncoordinated one with another. This initial lack of coherence explains both the continual contradictions in the various judgements of the child, and the absence of any criterion for conservation . . . he himself is made to put one bead into a given container each time the experimenter puts one into the other container. Even this one-one correspondence, which amounts to a practical enumeration, is not sufficient for conservation to be assumed. The child grasps that the two corresponding sets are equal only so long as the containers are equal" (Piaget, 1965, p. 27).

At the second stage of development the child tends to think there is conservation but he is in conflict with the "appearance of the sets, i.e. with the difference in level, cross-section, etc . . . the child at this level is capable of postulating conservation when there is only a slight change in pattern, but not when the change is more significant" (Piaget, 1965, p. 29). "Every one of these children concludes that there is equality if the same number of elements is dropped, one at a time, into two containers, irrespective of the shape of the containers. But when the child afterwards considers the result obtained when the shapes are different, his belief in the equivalence is shaken by an evaluation based on the perceptual relationships. Although he himself has just made the one-one correspondence, he reacts like the child at the first stage and thinks that any variation in height or width entails a change in the quantity as a whole.. . . At this second stage the one-one correspondence between the two sets leads to the equivalence of the two sets of beads. In the third stage the child no longer needs to reflect in order to be certain that there is conservation of the total quantities; he knows it a priori . . ." (Piaget, 1965, p. 33).

Cardinal Correspondence

Coordination is the correspondence of like objects. Piaget tested the child's development of cardinal correspondence in "provoked" and "spontaneous"

experiments. A provoked experiment might include the exchange of one object for another, for example, a flower for a candy or a penny. Piaget found three stages regarding provoked cardinal correspondence.

Stage I	No exact correspondence and no equivalence.
Stage II	One-one correspondence, but without lasting equivalence of corresponding sets.
Stage III	One-one correspondence and lasting equivalence of corresponding sets.

At the first stage the child confines himself to a kind of global comparison, a spatial evaluation. At the second stage the child is capable of making one-one correspondence but "as soon as the visual correspondence is destroyed, the quantitative equivalence and even the qualitative correspondence no longer exist for the child. It is as though, for the child, quantity depended less on a number or on the one-one correspondence between the objects, than on the global appearance of the set, and in particular on the space occupied by it" (Piaget, 1965, p. 45). At the third stage, once the sets have become equivalent through one-one correspondence, they remain so, irrespective of their arrangements. "The operation of one-one correspondence is thus constituted, and triumphs over mere intuitive or optical comparison" (Piaget, 1965, p. 47).

Seriation and Qualitative Correspondence

Seriation is the correspondence between two series of asymmetric relations ("qualitative similarity"). Ordinal correspondence is similarity that is numerical. Piaget concluded there were three possible operations: simple qualitative seriation, qualitative correspondence between two seriations (similarity) and numerical correspondence (ordinal) between the two series. In experiments involving dolls and balls Piaget concluded there were three stages in the construction of serial correspondence:

Stage I	Global comparison, without either exact seriation or spontaneous one-one correspondence.
Stage II	Intuitive, progressive seriation, and correspondence.
Stage III	Immediate, operational seriation, and correspondence.

"In the first stage, the child is incapable of reconstructing either one or other of the series and answers immediately and arbitrarily. In the second stage, he counts, but pays no attention to the order, or else captures the right position with that of the

preceding element. In the third stage, he succeeds in finding the correct correspondence through coordination of seriation and coordination" (Piaget, 1965, p. 99).

PIAGET'S FINDINGS AND THE ARCHEOLOGICAL EVIDENCE

Piaget's experiments involving the development of the concept of numbers in a child is consistent with the development of accounting tokens according to the archeological evidence (Fig. 1). The first stage of Piaget's experiments indicating no exact seriation or one-one correspondence would be equivalent to the environment prior to the development of the tokens. The second stage of Piaget's experiments with seriation and one-one correspondence but without lasting equivalence would be equivalent to the first stage and second stages of Schmandt-Besserat. In the first stage of the tokens both calculi and bullae were deemed necessary to have an adequate representation of the economic transaction. The perceptual relationships were uncoordinated with one another. The second stage of the tokens, which was addition to the bullae of two-dimensional impressed signs, is indicative of progressive seriation and one-one correspondence. This second stage lasted almost two centuries even though the enclosed bullae indicated the enclosed calculi. This is consistent with Piaget's experiments. In Piagets' second stage the child has just achieved one-one correspondence, but his concept of equivalence and conservation is at odds with his perceptual relations. Vallat's (1986, p. 336) statement that the first tablets were of two types: oblong and rounded also are consistent with Paiget's second stage. Apparently, even after the use of the bullae was abandoned, their shape was duplicated in the shapes of the tablet. The third stage of Schmandt-Besserat, when the tokens were collapsed into clay tablets with two-dimensional impressed signs is consistent with experiments of Piaget. At this point the item counted and the numbers were finally dissociated according to Piaget.

The child no longer needs to reflect in order to be certain that there is conservation; he knows it a priori. Perceptual relations have become operational. Once the notion of equalization has occurred there is no need for an optical comparison once the seriation and serial correspondence have become operational and truly ordinal, the bullae and calculi are no longer necessary. The child achieves cardinal correspondence without having a clearly defined understanding of numbers by arranging the sets in two corresponding rows; by seriating.

Piaget's theory regarding the development of language can be compared to the archaeological evidence concerning the development of writing and counting systems. Extracting information from objectives in the environment (physical

	STAGE I	STAGE II	STAGE III
Piaget's Discontinuous Experiments	no conservation	conservation one-one correspondence	conservation is a priori
Piaget's Cardinal Correspondence Experiments	no exact correspondence no equivalence	one-one correspondence without lasting equivalence	one-one correspondence with lasting equivalence
Piaget's Serial Correspondence Experiments	Global comparison without exact seriation or spontaneous one-one correspondence	Intuitive, progressive seriation and correspondence	Immediate, operational seriation and correspondence
Schmandt-Besserat	8000–3100 B.C. Calculi (three dimensional sculpture) representing quantity Bullae (clay envelopes)	3400–3200 B.C. Calculi unchanged Bullae supplemented by two dimensional impressed signs	3100–3000 B.C. Clay Tablets (two dimensional impressed signs which evolved into pictographs)

Fig. 1. Comparison of Piaget's Experiments and the Archeological Evidence.

experience) was evidenced in the archaeological findings. The objective of the environment, to document an increasingly complex economic structure, fostered the development of the tokens. Craft specialization, mass production, and the emergence of cities were cited by Schmandt-Besserat as the impetus for significant changes in the token system between 3,500 and 3,100 B.C. The archaeological evidence supports Piaget's theory that counting operations stem from ordinary, everyday activities.

Experience with the social environment (activities, concepts, cooperation and competition, mutual respect, folk ways, and mores) would have a dramatic impact on the development of writing, counting, and accounting. Cooperation and competition both would seem to foster the development of counting and accounting. People would cooperate to count flocks. At the same time, competition among farmers, herdsmen, or tradesmen would foster the desire to compare wealth and performance to those of competitors. The logic-mathematical concepts discussed by Piaget were the basis for accounting since these concepts are related to subject/object interaction. As accounting procedures developed, a certain order may have been introduced into the "counting system." The importance of the logic-mathematical concepts to the development of accounting, counting, and accounting is evidenced in the archaeological evidence. Folk ways and mores may be a partial explanation of why the calculi continued to exist longer after their information had been incised on the bullae. The tokens had to appear valid and reliable to a wide number of people of various backgrounds, skills, and education. Changes in such an important system would understandably be gradual. Equilibrium is a "progressive, self-regulating process" that coordinates exercises, physical experience, and experience with the social environment. Developing from a static motion to the motion of "transformation." Equilibrium leads step by step to a final state of reversibility that characterizes higher cognitive structures. This development would lead to seriation (arrange in some order), classification (according to quality), and correspondence (one to one or multiplicative). This would lead first to a generalized classification scheme and then to more complex scheme involving identity, negation, reciprocal, and correlative transformations.

Seriation would provide a step in the development of the tokens and counting. For example, placing a token for two sheep between a token for one sheep and three sheep would foster the notion of counting. Classifying according to group would also promote counting and accounting, and is, of course, an integral part of internal control and financial reporting. Classifying according to group at a more primitive level would foster the notion of tokens of "equivalent value." This notion of equivalents would also lead to the concept of equity.

The findings of Vallat and Schmandt-Besserat support Piaget's theory that the origin of logical operations is both deeper than and logically prior to language.

The development of the tokens is an example of "semi-formal" or "semi-intuitive" levels of thinking being formalized. This supports Piagets' theory that logical and mathematical systems are a process of "construction" and "reflective abstraction."

SUMMARY

Approximately ten thousand years ago a token system was created in the Middle East to account for economic transactions. At this time writing and numbering had not occurred. Instead, information was collected and stored for future reference through three-dimensional sculpture and two-dimensional art. The tokens developed in stages in response to the need to simplify the process of checking the contents of the bullae, the need to record more complex transactions such as services, and the development of governing organizations such as temples and cities, craft specialization, mass production of goods, and an expanded trade network.

These tokens were the precursor of writing and numbering. The use of pictographs led to a large variety of signs; finally, when the signs assumed the secondary sound value in addition to their primary meaning as commodities, these signs unified writing and speech. The tokens also provided the necessary seriation and one-one correspondence necessary to develop counting and higher cognitive structures.

Initial databases that were created in response to this need did not permit reliable and precise retrieval of the documents. The development of a writing system to more precisely differentiate records did permit more reliable document retrieval. The later use of the ideogram permitted more complex database systems. The lack of trust between individuals involved in economic transactions was also a driving force in the need for precise documentation of transactions. Vallat (1986, February, p. 338) is much more explicit when he says, "These fragile clay documents, 'orders' or 'receipts' from an administration in its infancy, imply that man at the end of the fourth millennium B.C. had already lost confidence in his fellow man! To append one's signature and inscribe the total for a transaction (very often for a sum less than a dozen, and sometimes even for a single unit) derives more from legal developments than any purely economic preoccupation!" What may be viewed as a "lost confidence in his fellow man" can also be viewed as common sense accounting: the need to provide reliable evidence to minimize friction over misunderstandings involving the exchange of commodities and services, as well as providing information about one's assets, obligations, and resulting equity.

The need for a reliable means of precisely retrieving documents from a database may have been a necessity if merchants were to protect themselves against claims

that were not warranted. As the transactions became more complex and repeat transactions between the same individuals became more common, the storage and retrieval of the documents that would give protection against unwarranted claims became more important. This need for improved database management provided the impetus for the development of writing and numbering systems. The archeological evidence supports Piaget's theory that logical operations are both "deeper than and logically prior to language."

Individuals, organizations, and societies learn and develop. The findings of this paper illustrates that in some cases individual development mirrors the development at the level of society. In some cases, our knowledge of individual behavior may help us to understand organizational and societal behavior. The obvious impact of society on the development of accounting is widely accepted and well documented. For example, the second chapter of Moonitz's *Accounting Research Study No. 1* is titled, "The Environment of Accountancy." An example of the environmental impact on accounting was the need for an orderly society. "Accounting seems to flourish in a stable environment, and to languish in an unstable one ... uncertainty of any type makes economic calculations difficult, perhaps even impossible" (Moonitz, 1961). In light of this statement it is ironic that uncertainty was the genesis of accounting. The contributor of accounting to an orderly society is also acknowledged in this same statement, "Economic activity is carried on by human beings interacting with their environment. This type of interaction of human effort (labor) and natural resources takes place through the medium of entities which are used as organizing units for the purpose of producing goods and services ... Accounting is one form of quantitative expression that is widely used ... in this process" (Moonitz, 1961). However, the archeological evidence supports a much more important role of accounting in the development of society than is generally acknowledged. Accounting was the genesis of writing and numbering; and when the signs of the accounting system assumed a sound value, writing and speech were united. Accounting contributed as much toward an "orderly society" as an "orderly society" contributed to accounting.

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ACCOUNTING FOR MONEY: THE FAIR VALUE OF CASH ASSETS AND DEPOSIT LIABILITIES

Bill Bergman

ABSTRACT

Fair value issues remain central to the pace of convergence in international accounting standards. This article identifies a fundamental issue at the root of the fair value debate, places the issue in an international and historical context, and recommends that standard-setters work to rationalize principles of accounting for money.

INTRODUCTION

Recent IASB and FASB fair value proposals for financial instruments remain grounded in historical presumptions of innocence for cash, even as the proposals make a case to fairly value all financial instruments. Full fair value accounting for financial instruments fairly values debt as well as assets; deposit liabilities as well as cash assets. If cash is a financial instrument, and financial instruments should be reflected at fair value, then cash should be at its fair value – a value not presumed to be the face value. Cash assets can include cash on hand and cash in a bank. In turn, cash in a bank can be uninsured, insured poorly, or insured well. Cash varies in value for a given face amount at different points in time, and under alternative banking regulatory regimes.[1]

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Internationally, alternative financial regulatory regimes pose different material risks for cash assets, as recent episodes of instability in South America and Asia attest. In turn, deposit insurance regimes have generally been moving away from full coverage for all deposits.[2] If "generally accepted" accounting principles must carry authority sourced in law and regulation for disclosure purposes, and full fair value accounting for financial instruments has to be incorporated in those principles, then cash assets and deposit liabilities should be also reflected at their fair value – and at a fair value not presumed to equal face value.[3]

FINANCIAL INSTRUMENTS AND FAIR VALUES

In recent years, the IASB and FASB have each expressed a longer-term goal of accounting for financial instruments at fair value, with value changes entering into the income statement as they arise. FASB fair value initiatives date (at the least) to the development of SFAS No. 107; issued in 1991, this standard called for footnote disclosure of fair value information. In late 1999, the FASB issued a thorough Preliminary Views,[4] and in late 2000 the FASB and international counterparts released a comprehensive Draft Standard[5] under the auspices of the IASB. The latter was prepared on a bedrock of previous work initially flowing from late 1980s concern about assessing bank capital adequacy on the basis of accounting data, international efforts culminating more recently in a 1996 paper by the UK Accountings Standards Board and a 1997 IASC/CICA discussion paper.[6] The latest proposals are notable for their reach and scope, recommending fair value accounting for all, or "virtually all," financial instruments.

If financial instruments are to be reflected at fair value, a fundamental first step defines a financial instrument. In its December 1999 Preliminary Views, the FASB offered the following definition:

"A financial instrument is one of the following:

(a) Cash;
(b) An ownership interest in an entity;
(c) A contractual obligation of one entity to deliver a financial instrument to a second entity and a corresponding contractual right of the second entity to receive that financial instrument in exchange for no consideration other than release from the obligation; or
(d) A contractual obligation of one entity to exchange financial instruments with a second entity and a contractual right of the second entity to require an exchange of financial instruments with the first entity."

The JWG provided nearly identical wording in its 2000 Draft Standard.[7] But what if the words in the two definitions mean different things? For example, something called "cash" is included at the root of each definition offered by the JWG and FASB. What do the JWG and the FASB consider to be "cash?" The words may be identical, or close to it, but alternative contexts can hold fundamentally different implications for fair values.

WHAT IS A CASH ASSET?

Accounting principles have long included "cash on hand" as well as "cash in a bank" as elements of the cash asset category. The latter includes deposits in depository institutions. Cash in a bank (or "book-entry" cash) differs from cash on hand along a number of different dimensions, while cash in a bank may itself be distinguished as insured or uninsured, as well as secured or unsecured.

The 1997 IASC/CICA Discussion Paper did not explicitly define "cash," but noted "when a single financial asset or financial liability is acquired or issued solely for cash in an arm's length transaction, and no other assets or liabilities are involved in the transaction, the fair value may generally be presumed to equal the cash consideration." Coupled with other references in that paper, herein lies a presumption that the face value of cash assets is equal to the fair value.[8]

In FASB's 1999 Preliminary Views, "cash" was defined, or at least referred to, in the definition of a financial instrument. The first sentence of the next section explaining the definition of "financial instrument" stated that "Cash, or currency, is the most basic financial instrument." With decades of U.S. GAAP experience including currency as well as deposits in the overall cash category, the ambiguity on the surface of this definition invites some explanation. The 1999 Preliminary Views definition of "financial instrument" went on to list various classes of things that fell into the definition because they represented contractual rights to require delivery or obligations to deliver a financial instrument, and specifically identified time and demand deposits as things that fell into that element of the definition. This would seem to preclude the inclusion of deposits as a member of the set of things called "cash, or currency" that form "the most basic financial instrument," even as accounting principles have long included bank deposits as well as currency in the "cash" category.

The Encyclopedia of Banking and Finance[9] defines "deposits" as "balances due to depositors of a bank; funds credited to the accounts of depositors." This source states that "the bank becomes the owner of the deposit." The depository really becomes the owner of funds recorded as assets, while it also incurs a deposit liability. The *depositor* becomes the owner of a deposit asset – a claim on the

depository. An uninsured unsecured depositor holds a claim sharing along with others at the same level of priority, not a claim to the specific "cash" deposited with the bank. This distinction illustrates a potential disconnect within the FASB 1999 Preliminary Views definition of "financial instrument." Note that deposits were specified as elements of class (c) of that definition; "a contractual obligation of one entity to deliver a financial instrument to a second entity and a corresponding contractual right of the second entity to receive that financial instrument in exchange for no consideration other than release from the obligation." A cash "asset" for one party may *correspond* to a contractual obligation of another party, but not as a contractual right to receive that *same* financial instrument. This might preclude deposits from membership in class (c) of the 1999 Preliminary Views definition of "financial instrument."

In the U.S., SFAS No. 95 ("Statement of Cash Flows") defines "cash equivalents" as "short-term, highly liquid investments that are both: (a) readily convertible to known amounts of cash; and (b) so near their maturity that they present insignificant risk of changes in value because of changes in interest rates."[10] As different things with different values may be referred to as "cash," it may seem difficult to know what "known amounts of cash" really are, even as the Statement asserted that it would "use descriptive terms such as cash or cash and cash equivalents rather than ambiguous terms such as funds." The Statement does not explicitly define "cash," but discusses it in the first footnote:

> Consistent with common usage, cash includes not only currency on hand but demand deposits with banks and other financial institutions. Cash also includes other kinds of accounts that have the general characteristics of demand deposits in that the customer may deposit additional funds at any time and may also effectively withdraw funds at any time without prior notice or penalty.

Demand deposits may not be effectively withdrawn at any time, however.

What is money? Economists have wrestled with this question for centuries. In light of events in Argentina, where a forced redenomination and revaluation of bank deposits was successfully challenged in numerous court cases, a great definition from an attorney – who described "money in the bank" as a "lawsuit in embryo"[11] – offers a relevant lesson for the topic at hand.

CASH ASSETS – FROM DEFINITION TO VALUATION

On the balance sheet, cash assets include both insured and uninsured deposits. These alternative assets may not be equal in value to other elements within a

like-valued category. In the United States, "assets" are defined in FASB Concept Statement No. 6 as "probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events." Alternative cash assets carry different probability of future benefit, however, and differ in the extent to which they are "obtained or controlled."

In referring to deposits as assets, the FASB 1999 Preliminary Views stated, "The interest rate on demand deposits is very low or zero because they are insured by government agencies and because the depositor can withdraw its money at any time."[12] This statement – taken alone as well as the context within which it was offered – seems to suggest that even if deposits fall into the "financial instrument" category because they represent contractual rights to receive financial instruments, they may not necessarily require a fair value adjustment for credit or liquidity risk. The distinction between insured and uninsured deposits indeed remains material and relevant, from a fair value standpoint. Banks sometimes fail, and all deposits are not immediately made whole in the event of bank failures. Depositors occasionally leave money in a bank that fails, and subsequently do not recover that money. Contractual provisions may stipulate conditions under which a depositor must wait before drawing on a "demand" deposit.

In contrast to the FASB 1999 "Preliminary Views," the 2000 JWG Draft Standard definitions explicitly included "demand deposits" in the definition of things to be included in "cash." The JWG Draft Standard defined "cash" explicitly as "cash on hand and demand deposits." The Draft Standard defined "cash equivalents" in turn as "short-term highly liquid investments that are readily convertible to known amounts of cash and which are subject to insignificant risk of changes in value." Interestingly, the JWG definition of "cash equivalents" excluded the phrase included at the end of the definition in SFAS No. 95 – "because of changes in interest rates." As a result, the JWG definition might seem to exclude from membership in the "cash equivalent" category any instrument that included credit risk deemed sufficiently significant, and represent a valuable direction for anyone concerned about a presumption that the fair value of cash is the face value, by fiat. However, the JWG also included demand deposits in the cash category by definition, and demand deposits can pose credit as well as liquidity risk. By excluding the qualifier "because of changes in interest rates," the JWG definition would seem to imply that cash equivalents are equivalent by fiat, with no need to consider credit or interest rate risk. Consistent with this interpretation, the JWG Draft Standard offered this interpretation of the effects of deposit insurance:

> The effect of deposit insurance is so pervasive that depositors often act as if their deposits were 100% insured even if there is a limit on the maximum amount insured; interest rates on uninsured deposits may not differ significantly from rates on insured deposits. That means that market participants (both depositors and institutions assuming deposit liabilities) consider the

> effect of the guarantee in pricing the deposits. Consequently, deposit insurance is not separately reported but would be considered in expected cash flows or discount rates in a present value computation.[13]

In the last sentence from the immediate quotation above, the word "not" appears in the first clause, but it is inappropriately excluded from the last clause. If the first sentence is true – if depositors act as if deposits were 100% insured even if they are not, then deposit insurance is NOT considered in expected cash flows. If uninsured deposits are valued on the same basis as insured deposits, deposit insurance is NOT relevant to a fair value assessment. If uninsured deposits are equal in fair value to insured deposits, something besides deposit insurance must be guaranteeing those claims. Having said that, however, the question remains – do depositors "often act as if their deposits were 100% insured even if there is a limit on the maximum amount insured?"

Following the deposit insurance crisis of the 1980s, uninsured deposits are more unambiguously at risk in the United States as a result of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA). This legislation was prompted by a need to recapitalize a deposit insurance fund seriously depleted by waves of S&L and bank failures. In turn, the legislation included provisions designed to insulate the taxpayer from further losses, such as prompt corrective action and least-cost resolution procedures for earlier resolution of failing institutions, and directed the FDIC not to protect uninsured deposits, absent a "systemic risk exemption."[14]

Do depositors really act as if their deposit is 100% insured, even if it is not? On July 27, 2001, in the United States, the Office of Thrift Supervision closed the Superior Bank, headquartered in Hinsdale, Illinois. Superior has proven to be one of the most costly individual failures for the FDIC insurance fund since the late 1980s, with roughly $500 million required to fund the resolution. Among other warning signs easy to identify with the benefit of hindsight, Superior was offering well above-market interest rates on uninsured deposits, and still witnessed a rapid rundown of uninsured deposits as a source of total funding in the year prior to the failure. In March 2000, the bank held nearly $600 million in uninsured deposits, while at the time of the closing just over a year later, this amount had fallen to roughly $50 million. The uninsured deposits that flew to safer havens did so safely, of course, so one might say the risk to which they were exposed was not material, ex post. However, those that remained did indeed remain at risk, and had the institution been closed earlier, at a lower cost to the FDIC, a higher level of uninsured deposits would have remained in the unhealthy nest. A number of studies have found more general evidence contrary to the JWG assertion that depositors behave as if their deposit is 100% insured, even if it is not.[15]

Economics drums home the lesson of a multiple functions for money. Money can serve as a store of value, as a medium of exchange, as a standard of deferred payment, and as a unit of account. Deposit insurance may bolster deposit value in these capacities, but in different ways. A deposit is “safe” if it is insured and can thereby serve as a store of value. For their liquidity, however, or for value as medium of exchange, deposits depend on their ultimate redeemability as well as the timing of redeemability.

The fair value of deposit assets does not necessarily equal face value, and the difference is material in principle. The fair value of deposit assets depends on a number of factors, including the credit quality of the depository institution, the extent to which the deposit is in fact insured, the administration of the deposit insurance system, and the actions of government officials in administering the resolution of institutions entering insolvency. Factors specific to deposits feed into a number of risks more commonly cited for financial instruments in general, including interest rate risk, credit risk, liquidity risk, and currency risk. Low or non-interest bearing instruments are not insulated from interest rate risk simply because they do bear explicit interest; at higher interest rate levels, the relative value of a non-interest bearing instrument falls. Uninsured deposits unambiguously bear credit risk, while both uninsured and insured deposits may be subject to liquidity risk as deposit insurance regimes can lead to liquidity risks even for *insured* deposits.[16] This risk can arise if access to deposits is restricted for some time after formal insolvency occurs. Even *insured* deposits can bear credit risk, if there is uncertainty about the promises made by the deposit insurer.

In addition, the fair value of a deposit asset can vary not only with the credit quality of a depository institution and the deposit insurer, but with the credit quality of the *depositor*. This possibility results from the right of setoff, which can provide that a bank who makes a loan to an entity that is also a depositor the right to set off the obligation to the depositor up to the amount of the loan. If the bank borrower fails, the bank may apply its deposit liability to the loan asset, leaving other creditors using the failed borrower’s financial statements grasping at air.

THE FAIR VALUE OF FINANCIAL LIABILITIES

In the United States, FASB CON 6 defines “liabilities” as “. . . probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.” FASB CON 6 further clarifies that in the context of liabilities, “Probable is used with its usual general meaning and refers to that which can reasonably be expected on the basis of available evidence but is not certain.”[17]

Liabilities due within one year have traditionally entered into the balance sheet at face value; they are not discounted for the time value of money with either a risk-free rate for that time period, or a risk premium. If the liability is owed over an interval greater than one year, it is reflected at the present value of the future cash flows. The interest rate used to discount future cash flows generally represents the rate appropriate for the "borrower" (that is, a rate incorporating risk considerations), but it is the rate appropriate for the borrower at the time the borrower entered into the agreement. Subsequent changes in credit quality do not enter into the present value computation for a liability.

Fair value accounting represents a break with this historical tradition, and has been advocated in general principle as well as with respect to specific issues arising for financial liabilities. Accounting for debt at fair value can present a clearer picture of a firm's "true" financial condition, as changes in the fair value of debt impact the value of equity. This holds true, an argument may proceed, with respect to changes in value arising from changes in general interest rates as well as the firm's own credit quality. In turn, if financial assets were to be reflected at fair value while financial liabilities are not, the combination might be asserted to offer a misleading picture of equity. Allowing a firm to recognize a gain along with a decline in its own credit quality can be theoretically defensible, if such a "gain" arises only upon a recognized loss in asset value. Yet if credit quality indeed is asserted to be a necessary component of accounting for one's own liability, the JWG definition of fair value itself might be called into question. For a market exit price, the JWG posited that a financial liability's fair value is determined by the "price an entity would have realized if . . . relieved of a liability." This definition of fair value actually forecloses consideration of one's own credit quality, which would play an immaterial role in an "arm's length exchange motivated by normal business considerations" for any transaction where another party is paid to assume a liability.

THE FAIR VALUE OF *DEPOSIT* LIABILITIES

The 1997 IASC/CICA discussion paper outlined two alternative theories for measuring the value of a deposit liability. The first method conceives deposit liabilities as components of broader financial instruments encompassing the deposit agreement, and would value the existing deposit liability significantly below face value as a result of market information indicating that depository institutions assume one another's deposit liabilities for prices significantly below their face value. The second perspective views existing deposit liabilities more strictly as financial instruments standing alone, with their fair value more closely

approximating the face value. However, in discussing the unique valuation issues associated with demand deposits, the 1999 FASB Preliminary Views made no mention of credit risk. The 2000 JWG Draft Standard did specifically address this issue, but in the context of the above-discussed note on the impact of deposit insurance on deposits in general, pointing to a conclusion that fair value measurement for deposit liabilities need not incorporate credit risk in light of what the Draft Standard characterized as “market expectations.”

A broader “relationship” view for deposit liability valuation has been asserted to draw from empirical evidence that deposits tend to be “sticky,” i.e. that they tend to stay around, and lead to even greater deposits. However, such an interpretation must wrestle with a sticky issue – on accepting a deposit, does a depository institution earn income? When accepting a new deposit under a deposit agreement, should the depository debit cash, credit the deposit liability for an amount below face value, and recognize income for the balance? Alternatively, should the depository debit cash, credit a liability for the face value, recognize a new intangible asset relating to the new deposit, and credit an income account reflecting the new intangible asset?

U.S. GAAP has long resisted including long-term relationship value while measuring deposit liability, even as supervisory and tax code acknowledge the existence of “core deposit intangibles,” and it appears that IASB and FASB fair value initiatives are likely to remain on that path. In its 1999 Preliminary Views, the FASB provided a thought-provoking if incomplete discussion of the issue, and stated that it had not yet decided how to treat instruments traded as part of a broader relationship (i.e. deposits). The Preliminary Views noted that focusing on market prices would seem to lead to support for incorporating relationship value, while focusing on the existing instrument would lead to presumption that the face value of the liability approximated fair value. The Preliminary Views noted that deposits are traded among depository institutions not only the basis of the fundamental obligation to pay the depository – or to pay to another according to the depositors instructions – but on the basis of other relationship benefits to the depository institution, including those arising from the deposit agreement. Within this discussion, however, the Preliminary Views did not address the question whether the market discount might also be related to deposit insurance. In the earlier discussion of deposits as *assets*, the 1999 FASB Preliminary Views noted, “The interest rate on demand deposits is very low or zero because they are insured by government agencies and because the depositor can withdraw its money at any time.”[18]

In the United States, the FDIC has estimated that roughly 60% of total deposits in commercial banks and savings institutions are insured deposits.[19] Estimation issues inhibit the FDIC from breaking out insured deposits by deposit type, and

FDIC staff is not willing to speculate whether the share of total demand deposits that are insured is significantly different from the insured share of total deposits. As a result, the above-quoted statement from the 1999 Preliminary Views may best be qualified, at a minimum, to include the phrase “the majority of” before “demand deposits.” In turn, the question arises – if government guarantees provide an important source of core deposit intangibles, how should a private firm incorporate the value of that support in its own financial statements?

Questions regarding demand deposits valued as a portfolio are raised on a base of more fundamental issues. In the U.S., SFAS 107 calls for disclosures relating to the fair value of financial instruments. In fleshing out the fair value of deposit liabilities, the statement requires disclosure to simply be at the face value, with no discussion of possible credit risk. This assumption also lies under the SFAS 107 disclosure requirements for short-term claims like as federal funds purchased and commercial paper.

WHAT IS FAIR VALUE?

At this point, it is useful to return to the fundamental definition of fair value. The “fair value” term has evolved in use over time, both for the FASB and the IASB. In the FASB 1999 Preliminary Views, “fair value” was proposed to be defined (in Paragraph 47) in the following terms:

> . . . an estimate of the price an entity would have realized if it had sold an asset or paid if it had been relieved of a liability on the reporting date in an arm’s-length exchange motivated by normal business considerations. That is, it is an estimate of an exit price determined by market interactions.

Similarly, the December 2000 JWG Draft Standard defined “fair value” as:

> . . . an estimate of the price an enterprise would have received if it had sold an asset or paid if it had been relieved of a liability on the measurement date in an arm’s-length exchange motivated by normal business considerations.

IAS 32 had previously defined (and still defines) fair value as “the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm’s length transaction.” Similarly, the definition of “fair value” in SFAS 133 referred to an “amount.” Note at least one interesting difference between this definition, and the 1999 FASB Preliminary Views and the 2000 JWG Draft Standard. Fair value, in IAS 32 and SFAS 133, is first and foremost an “amount.” In the latest FASB and IASB-proposed definitions, fair value is not an “amount”; it has become, first and foremost, a “price.” We are no longer referring first to an “x” or Q-axis amount on the demand and supply chart, but the “y”

or P-axis. If fair value is an amount, the question arises, an amount of what? If fair value is a price, the question arises, a price of what? Cash? Or *money*, in its abstract role, as a unit of account? How, as the 1999 Preliminary Views and the 2000 JWG definitions hold, may a price be "realized" or "received," respectively, if a financial instrument is sold? A price may not be eaten, it may not be stuffed in a mattress. Yet the evolution towards the term "price" from the previous reference to "amount" may still represent a valuable move. Calling fair value a "price" may help move the unit of account closer to a numeraire, away from a specified set of obligations from specified regulated entities.

The IASB and FASB "fair value" definitions share another invitation for interpretation, one that can take on materially different stripes in different jurisdictions. In the definition of "fair value," what does the phrase "normal business considerations" mean? If "normal business considerations" imply an ongoing working relationship with a solvent, liquid depository institution, than the fair value of cash may indeed approximate its face value. Alternatively, if "normal business considerations" include the realistic probability of bank failure, the face value of cash assets and deposit liabilities will not necessarily represent their fair value.

CONCLUSION

Accounting standard-setting is not strictly a "private sector" effort. Accounting principles are developed in concert with law and regulation to influence the language of business. As the public choice of economics has long and ably articulated, well-organized groups often pursue government intervention in their own self-interest, a form of rational behavior that may rest at odds with the general welfare.[20] The language of business is not necessarily immune from these sets of influences, today or yesterday.

The development of accounting principles with authority grounded in law and regulation may – or may not – constitute efficient public policy.[21] So long as these principles exist, however, the methods of accounting for cash and cash "equivalents" should usefully be revised. Accounting regimes should not make general presumptions that face value is the fair value, by fiat. A long train of articulate public advocacy has called for market discipline for uninsured deposits and other short-term claims to play a greater role in financial market regulatory policy.[22] Market discipline implies material differences between the face value and fair value of cash and cash equivalents. Accounting principles that pretend that risky things are not risky can couple with other policies to provide a formula for instability, subsidies, and bailouts.

Various forms of deposits comprise the largest components of the monetary aggregates (i.e., M1, M2, and M3), and these statistics are aggregated on the basis of face values. Fair value accounting considerations suggest monetary aggregates should be quality-adjusted, at least in theory, similar to the quality adjustment process applied in estimating the general price level. A promise or undertaking to pay money can serve as money, and the value of a promise to pay money can vary over time, particularly if expectations of broad public support for individual promises prove unfounded.

NOTES

1. Influential accounting texts developed in the early 1900s in the United States hold copyright dates coinciding with intervals of severe banking panics and subsequent public policy initiatives dedicated to ensuring the stability of deposit cash. These texts include some remarkable statements regarding the safety and stability of deposits and their appropriate accounting treatment in the cash account. See Sprague (1907, 1908) and Paton ed. (1932, 1934). The author is working on a paper on the development of accounting principles relating to the cash account amidst broader financial market regulatory history in the United States.
2. Financial Stability Forum, Working Group on Deposit Insurance; "International Guidance on Deposit Insurance: A Consultative Process"; June 2000; at http://www.iadi.org/pdf/Consultation_Paper_English.pdf.
3. GAAP is not explicitly law, of course, but statutes are law, regulations are another set of laws, and authority of an independent regulatory commission carries the force of law. The statutory and regulatory influence has resulted in widespread adherence to GAAP.
4. Financial Accounting Standards Board; "Preliminary Views on Major Issues Related to Reporting Financial Instruments and Certain Related Assets and Liabilities at Fair Value"; December, 1999.
5. Joint Working Group of Standard Setters; "Draft Standard and Basis for Conclusions: Financial Instruments and Similar Items"; International Accounting Standards Committee; December 2000.
6. Accounting Standards Board; "Derivatives and Other Financial Instruments"; July 1996; Steering Committee on Financial Instruments; "Accounting for Financial Assets and Financial Liabilities"; International Accounting Standards Committee; March 1997.
7. Each of these proposed definitions are quite similar to the existing SFAS 133 "financial instrument" definition in the United Stated. SFAS 133 was issued in 1998.
8. At the date of the transaction, the face value of cash used can indeed approximate fair value, but even here issues can arise. Consider the purchase of a used car. Assume no deposit insurance. The buyer can pay for the car with currency or with a check drawn on an entity with unknown or suspect credit quality. The car dealer may accept a lower dollar amount of currency than the amount on the bank check.
9. Charles J. Woelfel; The Encyclopedia of Banking and Finance; Probus Publishing Company; 1994.
10. Financial Accounting Standards Board; "SFAS No. 95: Statement of Cash Flows"; November 1987.

11. Joseph Sommer; "A Law of Financial Accounts: Modern Payment and Securities Transfer Law"; The Business Lawyer Vol. 53, No. 4 (August 1998).

12. Financial Accounting Standards Board; "Preliminary Views on Major Issues Related to Reporting Financial Instruments and Certain Related Assets and Liabilities at Fair Value"; December, 1999; paragraph 127.

13. Joint Working Group of Standard Setters; "Draft Standard and Basis for Conclusions: Financial Instruments and Similar Items; International Accounting Standards Committee"; December 2000; paragraph 375.

14. The systemic risk exemption allows the FDIC to protect uninsured deposits only in the case of a documented determination by the Secretary of the Treasury, in consultation with the President of the United States, respecting the recommendation of a two-thirds majority of the Board of Directors of the FDIC as well as the Board of Governors of the Federal Reserve System that unacceptable systemic consequences would indeed have ensued had those depositors not been protected. The legislation then provided for mandatory review of such a determination by the GAO, as well as a provision for funding any protection of uninsured depositors with a special assessment on all insured banks scaled to their total assets. Other things being equal, this latter provision makes the systemic risk exception less popular with other banks. See George Kaufman; "Too Big To Fail in Banking: What Remains?" Speech to Midwest Finance Association, Federal Reserve Bank of Chicago; 3/14/02.

15. See for example John S. Jordan; "Depositor Discipline at Failing Banks"; *New England Economic Review*; March/April 2000; Timothy P. Opiela; "Deposit Market Discipline in Pre-Crisis Thailand"; in *Proceedings at the Conference on Bank Structure and Competition*; Federal Reserve Bank of Chicago; 2001; Thomas H. Mondschean and Timothy P. Opiela. "Bank Time Deposit Rates and Market Discipline in Poland: The Impact of State Ownership and Deposit Insurance Reform." *Journal of Financial Services Research*; 1999.

16. See George G. Kaufman and Steven A. Seelig; "Post Resolution Treatment of Depositors at Failed Banks: Implications for the Severity of Banking Crises, Systemic Risk, and Too-Big-To-Fail"; Federal Reserve Bank of Chicago; Working Paper 2000-16; November 2000.

17. Financial Accounting Standards Board; "Elements of Financial Statements: Statement of Financial Accounting Concepts No. 6"; Paragraph 29, December 1985.

18. Financial Accounting Standards Board; "Preliminary Views on Major Issues Related to Reporting Financial Instruments and Certain Related Assets and Liabilities at Fair Value"; December, 1999.

19. See http://www.fdic.gov/bank/statistical/statistics/0109/cbrc05.html.

20. George Stigler; "The Theory of Economic Regulation"; Bell Journal of Economics and Management Science; 3-21; 1971; Sam Peltzman; "Toward a More General Theory of Regulation"; Journal of Law and Economics; v. 19, 1976; Mancur Olson; *The Rise and Decline of Nations;* Yale University Press; 1982.

21. See e.g. George Benston, "A Critique of the Rationale for Required Corporate Financial Disclosure"; Saxe Lectures in Accounting, Newman Library Digital Collections, Baruch College; May 1974.

22. See for example Gary H. Stern, "A Response to Critics of Market Discipline"; The Region; Federal Reserve Bank of Minneapolis; September 1999; George G. Kaufman and Kenneth E. Scott; "Does Bank Regulation Retard or Contribute to Systemic Risk?"; November 2000 working paper, Loyola University.

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SUNBEAM CORPORATION CASE: "BILL AND HOLD SALES, CHANNEL STUFFING, AND LOTS OF RETURNS: THE EFFECTS ON REVENUE, INVENTORIES, AND RECEIVABLES"

Alan A. Cherry

ABSTRACT

This case study deals with the financial accounting fraud at Sunbeam Corporation during the time "Chainsaw" Al Dunlap was the company's CEO. This was a very pervasive fraud, involving improper revenue recognition, understatements of the reserves for sales returns and bad debts, abuse of the rules governing consignment sales, and other manipulations. While the amounts involved seem insignificant when compared to those of Enron and WorldCom, the study of Sunbeam is illuminating. Many of the problems at Sunbeam were caused by an abusive and egotistical CEO. In addition, Sunbeam's external auditor during the period of the fraud was Arthur Andersen. Sunbeam can be viewed as being part of a continuum of audit failures extending from Waste Management to WorldCom. This case is designed in part to serve as an antidote to the coverage found in typical accounting by exposing students to a real situation in which people knowingly violated GAAP, and still received a

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clean audit opinion, and the company was eventually forced to declare bankruptcy.

This case is designed to illustrate how a company can manipulate its reported income for two or more years through the use of a variety of accounting games, the most important of which was bill and hold sales. The games were played at a very high level at Sunbeam Corporation during 1996 and 1997, during which time "Chainsaw" Al Dunlap was Sunbeam's chief executive officer (CEO). Before working on this case you should review the early part of the chapter on revenue recognition, along with the coverage of bad debts and returns in the receivables chapter and consignments in the inventory chapter of the Intermediate Accounting textbook assigned by your instructor. You will also need to read the relevant sections of SEC Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements," issued December 3, 1999.

BACKGROUND TO THE CASE

After a spectacular though brief tenure as CEO of Scott Paper Company, which ended with the sale of Scott to Kimberly-Clark for $9.4 billion, Albert J. Dunlap, known as Chainsaw for his fondness for firing people, took some time off and then agreed to become CEO of the troubled but respected consumer products company, Sunbeam Corporation. The market capitalization of Scott Paper had increased by $6.3 billion during Dunlap's time there, with Dunlap's net worth increasing by about $100 million, and both Wall Street and Sunbeam stockholders were thrilled at the prospect of another phenomenal turnaround at Sunbeam. Indeed, on July 19, 1996, the day after Dunlap was hired, shares of Sunbeam stock were bid up nearly 60%, the largest one-day increase to that point in time in the history of the New York Stock Exchange. Four months later, Chainsaw outlined a restructuring plan to the Sunbeam board of directors. He told the Board that he would eliminate half of the company's 12,000 employees, stop producing 87% of existing products, close the majority of its factories and warehouses, and divest several lines of business. He informed the board that this downsizing would save the company $225 million per year but also result in a one-time pretax charge of $300 million (Byrne, 1999, pp. 10–11, 31, 66).

Sure enough, Sunbeam reported successively larger profits for each quarter of 1997, culminating in earnings before discontinued operations for the year of over $123 million and a bottom line of over $109 million. This was an apparent turnaround of over $300 million from the year before, and Wall Street responded by

bidding Sunbeam shares up to a high of $52 per share in March 1998. Unfortunately for many investors, creditors, and other Sunbeam stakeholders, much of the miraculous turnaround was the result of creative accounting. Sunbeam's chief financial officer (CFO) Russell Kersh, who also worked with Dunlap at Scott Paper, liked to remind fellow executives that he was Sunbeam's "biggest profit center" and Dunlap stated at meetings that, "if it wasn't for Russ and the accounting team, we'd be nowhere" (Byrne, 1999, p. 167).

Things started to unravel quickly at Sunbeam in early 1998, with the stock price going down fast in reaction to a series of disappointing revenue and profit reports and projections. After an article in *Forbes* by Matthew Schifrin (1998) questioned the accounting practices at Sunbeam, the board of directors took the extreme action of firing both Dunlap and Kersh on June 13, 1998. Sunbeam's external auditor, the CPA firm of Arthur Andersen, then refused to allow its unqualified opinion on the 1997 financial statements to be used in connection with any securities offerings by Sunbeam. The Board and the newly appointed top management team ordered a review of the company's prior financial statements. Sunbeam hired the CPA firm of Deloitte & Touche to assist the audit committee of the board and Arthur Andersen with the review. The review led to the filing of an amended 10-K (Form 10-K/A) with the SEC in November 1998. Included in this 10-K/A were restated financial statements. When these are compared to the originally issued statements, it is apparent that Sunbeam had purposely overstated its loss in 1996 (a "big bath") and followed that with an vastly overstated net income in 1997. Much of the misstatements resulted from improper accounting for revenues and various expenses, along with the use of sham transactions. The SEC informed Sunbeam in June 1998 that its Division of Enforcement was launching an investigation. It took almost three years to complete that investigation, which resulted in the filing on May 15, 2001, of civil fraud charges against Dunlap, Kersh, former Sunbeam controller Robert J. Gluck, two other Sunbeam officers, and the partner in charge of the Andersen audit, Phillip Harlow.

The impact of Chainsaw and his friends on Sunbeam Corporation and its stockholders and creditors has been devastating. In February 2001, Sunbeam had to file for protection from creditors under Chapter 11 of the U.S. Bankruptcy Code. The company had seen its long-term debt go from about $200 million when Dunlap was hired to about $2.6 billion. Positive retained earnings have been replaced by a deficit of over a billion, as massive losses have been reported each year starting with 1998. At the time of the bankruptcy, the company had just $15 million in cash and its stock was selling for a mere 51 cents per share – just 1% of its peak price in 1998 of $52 per share. At the date of this writing, Sunbeam continues to operate and hopes to emerge from bankruptcy in a few more months. That is quite a legacy Chainsaw left behind.

HOW TO APPEAR PROFITABLE WHILE CASH FLOW GOES NEGATIVE

According to Sunbeam's 1997 quarterly and annual income statements, the expected turnaround was going very well. Mr. Dunlap did everything he could to keep attention focused on the rapidly growing revenues and profits, and Wall Street went along for the ride. It is too bad more attention was not paid to the company's balance sheet and statement of cash flows. If it had, Dunlap and Kersh might have had to spend more of their time explaining some apparent contradictions, such as: with revenues up just 19% over 1996, why were year-end receivables up almost 40%?; how come year-end inventories had increased by almost 60% since the end of 1996?; and if net income for 1997 was supposedly over $100 million, what did the reported *negative* operating cash flow of $8 million say about the quality of Sunbeam's earnings?

The contradictions existed because of the many questionable transactions, and the recognition of them by Sunbeam's accountants, that an increasingly desperate management engaged in during 1997 and early 1998 as it became increasingly difficult for Sunbeam to make its numbers. The various games played at Sunbeam included bill and hold sales, consignments treated as actual sales, improper accounting for bad debts and returns, and excessive write downs of the carrying value of its inventories. The descriptions of these manipulations that follow are based on the prescient article by Laing, the book by Byrne, and of course the findings of the SEC resulting from the agency's extensive investigation of Sunbeam, its former management, and its external auditor.

A bill and hold sale occurs when a supplier bills a customer for merchandise that it has not yet shipped and will hold until instructed by the customer to ship. Revenue can be recognized when the bill is sent if a series of guidelines established by the SEC in 1986 (and reiterated in SAB No. 101 in 1999) are met. Sunbeam began using bill and hold sales of electric blankets during the second quarter of 1997, and then made extensive use of bill and hold sales of barbecue grills during the fourth quarter. Of course, in the United States most people are not interested in buying electric blankets in the spring or barbecue grills in the fall and early winter. So Sunbeam had to offer its customers, retailers such as Wal-mart and Home Depot, special financial incentives to get them to write purchase orders for this merchandise. Sunbeam offered major discounts and required no payment until six months after billing. Typically, credit terms called for payment within 30 days. According to Byrne (1999, p. 162), it was Sunbeam's "managers who were aggressively advocating the transactions rather than the customers. The customers took some persuading because they did not want to fill their warehouses or stores with out-of-season merchandise. So Sunbeam offered to hold the goods

in third-party warehouses leased by Sunbeam, and paid the costs for storage and shipment and even insurance (SEC, 2001, p. 6). Some customers were being told that these sales were essentially guaranteed, giving the customer the right to return the goods if they were not sold at retail (Byrne, 1999, p. 162).

Harlow, the external auditor, did actually discuss the bill and hold transactions with the company's board of directors in January 1998, prior to the issuance of the financial statements. This may have been prompted by the inclusion in the revenue recognition section of the note on significant accounting policies of a brief discussion of the bill and hold sales. According to the minutes of that meeting, Harlow "saw no particular issue with this procedure in light of the company's marketing strategy for 1998" (Byrne, 1999, p. 163). One of the directors did ask whether the accounting treatment, that is recognizing revenue six months before actual delivery to the customer, was conservative under GAAP. Controller Gluck and CFO Kersh reassured the director that the sales were legitimate and met SEC guidelines (Byrne, 1999, pp. 163–164). An inexperienced internal auditor, Deidra DenDanto, was not so sure but the board never heard from her. Relying not on SEC guidelines but on standard accounting principles, she told a top Sunbeam salesman that the company's accounting treatment of the bill and hold sales was not legitimate because such sales were not complete or substantially correct. Unfortunately, Ms. DenDanto eventually quit her job at Sunbeam, frustrated by being ignored whenever she voiced her concerns about this and other areas of questionable accounting at the company. Out of respect for her boss, the director of internal auditing, she never communicated those concerns to either the Board or the SEC.

Gluck seems to have been concerned about the bill and hold sales all along. He went into panic mode near the end of 1997 when he discovered that Sunbeam only had a few of the letters from customers authorizing the bill and sales needed to support revenue recognition. So Sunbeam drafted form letters and pressed its customers to sign them. Some refused, others returned the documents after the year had ended. One customer even typed in the following: "As per our discussion, we have the right to return this within six months" (Byrne, 1999, p. 168). Still, Sunbeam recorded the sales and profits from all $35 million for fourth quarter bill and hold transactions. Of that amount, an amazing $29 million was later reversed by auditors and booked as sales of later quarters (Byrne, 1999, pp. 168–169).

One of the problems of the aggressive sales methods used by Sunbeam was the virtual guarantee that sales of their products would suffer in the future. Indeed, during the first quarter of 1998, Sunbeam had to revise its sales estimates downwards several times, and despite various accounting tricks, still fell short of analyst's estimates for the quarter. Having engaged for too long in what is known as "channel stuffing," Sunbeam's customers had too much of its merchandise. In

February 1998, Wal-Mart had 20 weeks of Sunbeam stand mixers and 31 weeks of their bread makers. Worse yet, K-Mart was sitting on 70 weeks of the bread makers and 80 weeks of stand mixers and rotisseries (Byrne, 1999, p. 210). It was going to be awhile before these major customers placed any orders for these products, but Sunbeam's management was running out of time.

Sunbeam had often shipped goods on consignment, especially to some companies that acted as distributors of Sunbeam products. These distributors acted as intermediaries between Sunbeam and various retailers to whom Sunbeam did not normally sell direct. However, it turns out that during 1997 Sunbeam immediately recognized revenue on some of its consignment shipments (Byrne, 1999, p. 168). Worse yet, according to the SEC (2001, pp. 8–9), Sunbeam launched a special distributor program late in 1997. Needing to boost revenue and profit figures in the short-run, the company started offering discounts, lenient credit terms, and the right to return or exchange any unsold product. For example, Sunbeam recognized $2.9 million of revenue from a shipment near year-end to a distributor. To justify the recording, a conventional purchase order was needed, so Sunbeam agreed to pay for storage of the goods, aid the customer in its resale efforts, and to allow the customer to cancel if it could not sell the goods. As the SEC points out, it sounds as if the distributor was being exposed to the same economic risk as it had under the previous consignment arrangement. In a second instance, $4.3 million was booked as revenue when Sunbeam shipped blankets custom packaged for two of Sunbeam's largest retail customers to a distributor. In effect, Sunbeam was guaranteeing a nice mark-up to the distributor for doing what is known as a "parking transaction." Normally, Sunbeam would ship directly to these large customers, but as noted earlier they were already overstocked. So the distributor would hold the goods until requested by the customers and then ship on behalf of Sunbeam.

A major problem that resulted from the channel stuffing and related concessions to customers was much of Sunbeam's product sold earlier in 1997 started flooding back in as returns skyrocketed. This was one of the internal auditor's main concerns, given that Sunbeam technically had a no-return policy. Yet she was aware that customers were returning millions of dollars in product every month (Byrne, 1999, p. 165). The sales force, under intense pressure from the top, was indeed giving customers, and not just on the bill and hold sales, a guaranteed right of return at full cost. Despite knowing that returns would grow tremendously, Kersh and Gluck compounded the problem by failing to properly handle the allowance for estimated returns at the end of 1997. Amazingly, they actually reduced the allowance balance from $6.5 million to $2.5 million at year end (SEC, 2001, p. 11). The special audit found that this and related moves inflated 1997 net sales by $16 million and 1997 pretax profits by $6 million. The reality was sobering. In the 30-day period ending in mid-January, Sunbeam's customers indeed deducted $2.8 million from their

invoice amounts to cover returned merchandise. A review done by the internal auditor found that a full one-third of all sales made in Canada during 1997 were later returned (Byrne, 1999, p. 234).

Those transactions with the distributors also caused a return problem that Sunbeam did not handle very well. According to the SEC (2001, p. 9), nearly $25 million of the fourth quarter 1997 "sales" to distributors were subject to rights of return. Granting these rights was a significant change in how Sunbeam did business. As a result, Sunbeam did not have enough information to even set an appropriate level in the allowance for returns in relation to these distributor deals.

As far as the accounting for returns is concerned, the low point at Sunbeam came during the first quarter of 1998. At a time when the company knew it was facing close to $20 million in pending returns, CFO Russell Kersh ordered the deletion from Sunbeam's computer system of all return authorizations. While the returns had to eventually be accepted, the purging of the authorization file served to delay recognition of returns so as to avoid reducing the already shrinking net sales of the first quarter (SEC, 2001, p. 11). This is really not something you ever expect a CFO to do.

With all of Sunbeam's sales, both legitimate and questionable, being credit sales, accounts receivable is of course an important balance sheet account for the company. The likelihood of bad debts and returns make proper valuation a challenge under the best of circumstances. Given what was going on at Sunbeam, their reported receivables had to lack credibility. As shown below in the balance sheet section of this case, the restated net receivables at the end of 1997 were $67 million lower than the originally reported amount. This resulted from two account balance changes required by the auditors. First, they reduced the gross receivables from $313 million to $258.5 million. Second, despite this sizable decrease, they increased the balance in Sunbeam's allowance for doubtful accounts from $17.5 million to $30 million. In percentage terms, it went from less than 6% to almost 12% of gross receivables.

Laing (1999) had already focused attention on Sunbeam's accounting for bad debts in his article. He noted that Sunbeam ended the "big bath" year of 1996 with an allowance of $23.4 million. This was surprisingly large compared to $10.7 million at the end of 1995 and only $3 million at the end of 1994. With so much of their sales being to high profile retailers, collecting receivables did not seem likely to be a big problem for Sunbeam. Laing suggested that the excessive allowance at the end of 1996 would be used to reduce the amounts charged to bad debt expense in 1997 and 1998. He thought they might be able to eliminate the expense altogether. He also raised the possibility of a purposely overstated allowance being quietly reversed into the income of future periods. It appears that Laing knew even then not to trust the Sunbeam CFO, Russell Kersh.

The other balance sheet account adversely affected at Sunbeam had to be inventories. According to its original 1997 cash flow statement, inventories had increased $100 million during the year. This had quite an adverse effect on cash flows. But of course the reality was even worse. Taking in to account the improper accounting for such things as the bill and hold sales and the consignments, the special audit produced a restated balance sheet amount that was close to $50 million higher than originally reported. When combined with misstatements affecting the 1996 year-end figures, the negative impact on cash flow was now shown to be $140 million.

Another issue concerning inventories was noted by Laing. As part of its $337 million restructuring charges Sunbeam had reduced the carrying value of its inventories by about $90 million. Laing was concerned that profits and sales margins could be made to look better than they should as the affected goods were subsequently sold. It appeared that many of the items written down might have considerable sales value. Laing thought that Sunbeam may have managed to generate $35–$40 million in increased pretax income in 1997 through the liquidation of this "obsolete" inventory.

A LOOK AT THE FINANCIAL STATEMENT DETAILS

Upon completion of the review by the two CPA firms, restated financial statements and accompanying notes were prepared and filed with the SEC as part of Sunbeam's Form 10-K/A for the fiscal year ended December 28, 1997. Before posing a few questions to which I would like you to respond, shown below are some of the most important items from Sunbeam's income statement and balance sheet for 1997 as they were originally reported and as restated, along with the original operating activities section of the 1997 statement of cash flows.

Selected Items From Sunbeam Corporation's 1997 Income Statements

	As Originally Reported	As Restated
Net sales	$1,168,182	$1,073,090
Cost of goods sold	837,683	830,956
Selling, general and administrative expense	131,056	152,653
Restructuring and asset impairment (benefit) charges	0	(14,582)

	As Originally Reported	As Restated
Operating earnings	199,443	104,063
Net earnings	109,415	38,301
Net earnings (loss) per share of common stock		
Basic	$1.29	$0.45

Note: Amounts in thousands, except for per share amounts.

When it comes to the December 28, 1997 Balance Sheet, there are some interesting changes in several areas, particularly receivables and inventories, as shown below.

Selected Items From the December 28, 1997 Balance Sheet

	As Originally Reported	As Restated
Receivables, net	$295,550	$228,460
Inventories	256,180	304,900
Total current assets	658,005	602,242
Total assets	1,120,284	1,058,928
Retained earnings	141,134	89,801
Total shareholders' equity	531,937	472,079

Note: Amounts in thousands, except for per share amounts.

Although the net increase in cash was only overstated by $80,000, the 1997 Statement of Cash Flows also had to be restated. Presented below is the operating activities section as originally reported and as restated. Notice that every individual item had to be restated.

Operating Activities Section of Sunbeam's 1997 Statement of Cash Flows

	As Originally Reported	As Restated
Operating activities		
Net earnings	$109,415	$38,301
Adjustments to reconcile net earnings to net cash used in operating activities		
Depreciation and amortization	38,577	39,757
Restructuring and asset impairment (benefit) charges	0	(14,582)
Loss on sale of discontinued operations, net of taxes	13,713	14,017
Deferred income taxes	57,783	38,824
Increase (decrease) in cash from changes in working capital		
Receivables, net	(84,576)	(57,843)
Proceeds from accounts receivable securitization	–	58,887
Inventories	(100,810)	(140,555)
Accounts payable	(1,585)	4,261
Restructuring accrual	(43,378)	(31,957)
Prepaid expense and other current assets and liabilities	(9,004)	(16,092)
Income taxes payable	52,844	52,052
Payment of other long-term and non-operating liabilites	(14,682)	(1,401)
Other, net	(26,546)	10,288
Net cash used in operating activities	($8,249)	($6,043)

Note: Amounts in thousands, except for per share amounts.

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APPENDIX A: QUESTIONS

(1) Do you think the bill and hold sales made by Sunbeam during 1997 meet the criteria for revenue recognition? Be specific in supporting your answer. You will need to refer to SEC Staff Accounting Bulletin No. 101, which is dated December 3, 1999. This document is written in the form of questions and answers. Your focus should be on the section labeled Question 3, which is part of the section on delivery and performance.

(2) Without prejudice to your answer to question 1 above, assume the Sunbeam bill and hold sales failed to meet the criteria for revenue recognition. Suggest ways that Sunbeam could account for the transactions that would be in accordance with GAAP. Our coverage of revenue recognition earlier this semester should help you to answer this question. Note that I am **not** asking how they could have structured the transactions differently – it is far too late for that.

(3) One of the problem areas discussed in the case were consignments that were treated as sales by Sunbeam. Identify the accounts in Sunbeam's accounting system that were affected by the improper treatment. Be sure to indicate whether these accounts were overstated or understated in the 1997 financial statements.

(4) What information signals did Sunbeam's 1997 Statement of Cash Flows, as originally reported, provide about the quality of the company's earnings? Focus your attention primarily on the reported **changes** during 1997 in receivables and inventories, and on the "bottom line" of the operating activities section.

(5) Looking at the restated cash flow statement, you see an increase in cash of $59 million that is explained as proceeds from accounts receivable securitization. This item did not appear at all on the original statement. The fact of the matter is that the CFO was able to sell these receivables to an outside firm late in 1997. Kersh wanted to make the balance sheet look better and did so by selling off the company's most creditworthy receivables. If this transaction had not taken place, what amount would Sunbeam have had to report as cash used by operating activities in 1997? What impact did the transaction have on the increase in receivables reported in the original cash flow statement?

(6) Two important areas of subjectivity concerning the valuation of receivables and the related income measurement are the estimation of bad debts and of sales returns. Summarize the games played at Sunbeam involving these two areas. Be sure to note how the financial statements were affected.

(7) Briefly discuss how taking an excessive write-down of inventories in 1996 might have made Sunbeam look better in 1997. Be sure to note that the restated income statement shows a reduction in net sales of $95 million, but only a $6.7 million reduction in cost of goods sold. Might the write-down have anything to do with that?

(8) As always happens, when an accounting fraud comes to light, people ask, "where were the auditors?" Sunbeam is no exception, especially with the SEC bringing civil fraud charges against the Arthur Andersen partner in charge of the audit engagement. The evidence seems to indicate that this partner was aware of various aspects of the accounting fraud, yet signed unqualified audit opinions for both 1996 and 1997. Identify the stakeholders who have been harmed by this auditor's failure. Whose interests do you think this auditor was trying to serve – "Chainsaw" Al Dunlap and his management team or the stakeholders you have identified? Why might an auditor favor the interests of management over those of other stakeholders?

(9) Put yourself in the role of the internal auditor, Deidra DenDanto. What action, if any, would you have taken in order to make your concerns about the accounting abuses at Sunbeam? Can you blame her for quitting her job at Sunbeam?

APPENDIX B: LEARNING OBJECTIVES

- To help students understand the potential for fraudulent overstatement of revenues inherent in transactions such as the bill and hold sales utilized by Sunbeam.
- To help students understand that it is much easier to overstate revenues and income than cash flows and that therefore they must review cash flow statements carefully in order to assess the quality of reported earnings.
- To help students understand the potential for fraudulent misstatement inherent in the subjectivity surrounding estimates of bad debts and sales returns.
- To help students understand that apparently conservative accounting techniques such as inventory write-downs create hidden reserves that can be used to manipulate reported profits in later periods.
- To help students understand the limitations of internal auditing in situations where top management is involved in the fraud.
- To help students understand the need for extraordinary skepticism when dealing with companies run by executives as ruthless and self-serving as "Chainsaw" Al Dunlap.
- To help students understand that the demise of the CPA firm, Arthur Andersen, did not occur solely as a result of the audit failure involving Enron.

APPENDIX C: IMPLEMENTATION GUIDANCE

I have used this case as a writing assignment in the first half of a year-long course in Intermediate Financial Accounting and Reporting. I give it to the students soon after the midterm exam and collect it near the end of the semester. The maximum length allowed for their response is six pages, double-spaced. One of the benefits of the case is that many students come to my office to ask me questions regarding the case, including some that never came for any other reason. While the students find the case very challenging and a bit scary, quite a few have told me it really made them think. Most students also seem to like dealing with such an interesting and real situation. While Intermediate textbooks now all include case materials, those are too brief to truly engage the students. Quite a few students express anger that people would commit such a fraud. It serves as a good eye-opener for most of them.

I could see the case being used as the basis of a class discussion instead of as a writing assignment. I think it could easily be used for group assignments, with each group responsible for one or two questions each. Another possibility would be to combine the two by making it a writing assignment but collecting it early enough to have it graded and returned to the students during the last class before the final exam. A class discussion of the case at that point would involve a review of several topics likely to appear on the final exam.

This case is designed to illustrate how a company can manipulate its reported income for two or more years through the use of a variety of accounting games, the most important of which was bill and hold sales. The games were played at a very high level at Sunbeam Corporation during 1996 and 1997, during which time “Chainsaw” Al Dunlap was Sunbeam’s chief executive officer (CEO). I have used the case during the Fall 2001 and Spring 2002 semesters in Intermediate Accounting I classes. When I first began studying the facts of the Sunbeam fraud, which was the result of my fascination with a monster like “Chainsaw” Al being allowed to do so much damage at fine companies such as Sunbeam and Scott Paper, it became apparent that this fraud involved many of the areas of financial accounting covered during the first half of Intermediate Accounting. I could see the potential for bringing to life for students the coverage of revenue recognition, bad debts and returns and their effect on the valuation of receivables, consignments and write-downs of inventory, and the importance of the operating activities section of the cash flow statement.

The case also exposes students to the SEC web site as they have to obtain a copy of SEC Staff Accounting Bulletin No. 101, “Revenue Recognition in Financial Statements,” issued December 3, 1999. They need to read the relevant section of the Bulletin in order to respond to the case’s first question regarding bill and hold sales. Although SAB No. 101 was issued after the fraud occurred at Sunbeam, the section

on bill and hold sales created no new accounting rules. It simply reiterates the criteria established for recognizing revenue on such sales that the SEC established in a 1986 enforcement action.

The usual treatment of revenue recognition in Intermediate Accounting textbooks has the unfortunate effect of focusing student attention on the various complications of construction accounting and the installment method. Too little attention is paid to the requirements that must be met in order to recognize revenue at point of sale. The first three questions of this case, focusing on the abuse of bill and hold sales and consignments at Sunbeam, are designed to help students appreciate that just because merchandise has been shipped somewhere and an invoice has been sent to a customer, it may still not be appropriate to recognize revenue. When a company reports revenue it is supposed to be saying that it has already collected cash or has a high probability of doing so in the near future. As it turned out, Sunbeam lied to the tune of about $95 million of revenue that should not have been recognized at the supposed point of sale.

The case is also designed to force students to deal with the difficult task of using the information presented in the operating activities section of the cash flow statement when the indirect method is used. Textbook authors and professors can talk until we are blue in the face about how much better the direct method is for users (I certainly believe that), but the reality is the vast majority of publicly-held corporations use the indirect method. The fourth and fifth questions of this case force students to look at the changes in receivables and inventories reported in the cash flow statement. The large increases in these two critical accounts provided a strong contradiction to the good news being pedaled to analysts and stockholders by Dunlap and his CFO Kersh. Better yet, students get to ponder the conflicting signals provided by a net income of over $100 million and net cash used by operations of over $8 million.

The sixth and seventh questions of the case are designed to help students see that while most companies make honest attempts to estimate the value of their receivables and inventories, using accounting procedures illustrated in the textbook, these valuations are inherently subjective in nature. When proper controls are not in place and when auditors are either ignored or not exercising proper skeptical judgment, such subjectivity lends itself quite nicely to a master fraudster such as Sunbeam's CFO, Russell Kersh. Dunlap used to brag that Kersh was Sunbeam's main profit center and students get a taste of what he meant when they focus on the CFO's often outrageous manipulations of the accounting for bad debts, returns, and the part of the 1996 restructuring charges that related to inventories.

The final question attempts to make the students uncomfortable by asking them to imagine themselves in the frustrating role of internal auditor at a company where

all of the top financial people and the CEO are involved in a fraud. While not an explicit part of this case, it is important to remember that the job of this internal auditor who was convinced of the fraudulent nature of the accounting for the bill and hold sales and other problem areas was not made any easier by having an external auditor who heard no evil, saw no evil, and spoke no evil. That external auditor is the same one who failed to protect stakeholders at Waste Management and at Enron, none other than the once proud firm of Arthur Andersen.

Overall, this case is designed to get students to see some basic aspects of financial accounting in a very different light than the one that normally shines in accounting textbook fantasy land. In that magical place, there is always a right answer, subjective measurements are made to appear objective, and management never influences what gets reported in the financial statements. Unfortunately for our students they are going to be working in the cold, cruel world where people like “Chainsaw” Al and his faithful companion Russell Kersh will lie and cheat in order to enrich themselves. Much of what we do in accounting does fall in the grey areas where subjectivity dominates. We are supposed to see through the form of transactions and the related paper evidence of them to the economic substance. This means developing a very healthy dose of skepticism.

We may never be able to completely eliminate financial accounting and reporting frauds such as the one perpetrated at Sunbeam but we should be able to expose them sooner and lessen the damage they cause. The Enron fiasco seems to have caught the attention of the world in a way no recent fraud has been able to do. But Enron was not the first financial reporting fraud and it will not be the last. People working in all parts of the accounting profession must make the minimizing of the potential for fraud a high priority. Part of the way we educators can do that is by helping those who will soon be entering the profession to learn from the examples provided by past frauds such as Sunbeam. It was really not that difficult to write this case as I thought it would be thanks to two wonderful sources. The first is the highly entertaining book written by *Business Week* reporter John A. Byrne, *Chainsaw: The Notorious Career of Al Dunlap in the Era of Profit-At-Any-Price*. Byrne does an exceptionally good job of dealing with the accounting problems at Sunbeam while also putting them into the context of an environment in which analysts, investors, creditors, directors, and auditors were willing to uncritically accept the lies told by an abusive CEO who loved firing employees and devastating communities by closing plants. The second source is the May 15, 2001, SEC Release No. 1393, *In the Matter of SUNBEAM CORPORATION*. This Release details the settlement reached with the post-fraud management of the now bankrupt Sunbeam Corporation. Much of the Release is devoted to a very detailed explanation of the fraud and it makes it very clear why that same day the SEC brought suit against “Chainsaw” Al, former CFO Kersh, the former

Sunbeam controller, and the partner in charge of the audit for Arthur Andersen for fraud.

APPENDIX D: TEACHING NOTES

I will now discuss what I expect in response to each of the nine questions posed at the end of the case. This should prove helpful for grading purposes. In response to the first question, all of my students have correctly concluded that Sunbeam's bill and hold sales do not meet the criteria for revenue recognition. What I am looking for here is a detailed and clearly-written explanation of what features of these transactions makes revenue recognition at time of shipment inappropriate. They do not have to talk about every criterion that is not met but they should note the most obvious ones. These include the altering of credit terms to allow up to six months for payment, the guaranteed right of return when Sunbeam supposedly had a no-return policy, the evidence that the customers often did not need the merchandise and that the bill and hold arrangement was not at their request, and most important of all that the risks of ownership had not passed to the customers since Sunbeam paid all the costs of warehousing the goods including insurance. I would be very concerned about any student who thinks Sunbeam handled these transactions in a manner that was consistent with GAAP. This might be somebody capable of committing fraud in the future or at least being unable to spot such a fraud.

The second question builds on the first. My expectation here is that students will think back to our study of revenue recognition and suggest one of the methods that can be used when the uncertainty of eventual cash collection is so high that reasonable estimates of uncollectibles cannot be made. The idea is that recognition needs to be deferred until Sunbeam either has the cash or a creditworthy customer has possession of the goods and the right of return no longer exists. I think the installment method or the cost recovery method makes sense here. However, the first time I assigned the case most students thought I was asking them to restructure the transactions so as to meet the revenue recognition criteria. Some even came up with ways to make the fraud worse by changing the paperwork after the fact. I thus added the last two sentences to help clarify and also talked about it a bit in class. The results were much better the second time.

As for the third question, most students know from the coverage of what to include in ending inventory that these consignments of Sunbeam's should not have been treated as sales. The accounts involved are sales revenue, cost of goods sold, accounts receivable, and inventories, with the first three all overstated as a result of the fraudulent treatment and the last one understated.

The fourth question has proved to be quite difficult for students. While I did spend one class session on the indirect method, the textbook delays such coverage until one of the last chapters. Despite being provided with the balance sheet amounts for receivables and inventories, some students talk about the amounts found on the cash flow statement as the balances of these two accounts. The better students did follow a hint I provided in class and calculated the percentage increases during 1997 in the two accounts and compared it to the increase in sales from 1996 to 1997. Doing those calculations is dependent on being able to derive the beginning balances by subtracting the increases in receivables and inventories from their 1997 ending balances. If they can handle that they find that the two increases, 39% and 65%, respectively, are far in excess of the 19% increase in sales. These were clear red flags for anybody who bothered to look at the statement of cash flows. While they are looking at it, students are expected to also note that a mature company such as Sunbeam should not have a negative cash flow from operations for a year during which it had supposedly earned over $100 million, according to its income statement. This hopefully reinforces the point I make throughout the semester that the financial statements must be examined together, not in isolation.

The securitization of receivables, the topic of the fifth question, resulted in cash inflow of about $59 million in late 1997, and this was actually disclosed in a note by Sunbeam. The problem is that this event did not appear anywhere on the original cash flow statement. This was not the way Sunbeam usually turned its receivables into cash. If the students handle this information properly, their response is that without this transaction Sunbeam would have had a receivables increase of over $140 million, which is about a 68% jump. That might have aroused a bit more suspicion. Worse yet, without this late infusion of cash the net cash used in operating activities for 1997 would have been a glaring negative $67 million. That was not a signal CFO Kersh wished to send to Wall Street.

The sixth question relates to two topics covered during the study of receivables, bad debts and estimated sales returns. Students should see that by purposely overstating the bad debts estimate at the end of 1996 as part of its "big bath," Sunbeam was likely to have a credit balance in the allowance account at the end of 1997. Assuming the year-end adjustment was based on the receivables balance, a counter-balancing effect in the allowance guaranteed that the 1997 expense would be understated. Just to make sure, Sunbeam also used an unrealistically lowered percentage at the end of 1997. The effect on the financials was to understate bad debt expense and therefore overstate operating and net income while overstating receivables on the balance sheet. As for the returns, if the CFO's destruction of a critical computer file vital to accounting for returns is not a clear case of intent to defraud, I do not what is. The channel stuffing combined with the generous return privileges assured a high rate of returns in late 1997 and early 1998. If the Andersen

auditors were all aware of what was going on at Sunbeam, the clear understating of estimated returns should have gotten their attention. As the students point out in their responses, the net sales revenue was being overstated on the income statement while receivables were being overstated on the balance sheet.

The seventh question has proved to be another very difficult one for students. The idea here is that when the phony and prematurely recognized sales were reversed as part of the restatement, the related cost of goods sold also had to be reversed. This would have resulted in proportionate decreases in the two accounts. However, as the question notes, when comparing the original and restated income statements, the decrease in sales is $95 million but the decrease in cost of goods sold is way out of line at only $6.7 million. The only explanation for this seems to be the excessive write-down of inventories in 1996. Sunbeam wrote down its inventories by about $92 million in 1996. It turned out that much of this merchandise was not impaired at all and was subsequently sold through normal channels during 1997. This of course resulted in a large understatement of cost of goods sold for the year. Then when this got reversed for the restatement, the increase almost completely offset the decrease from the revenue recognition reversals. The students really do struggle with all of this. If I were to drop any of the questions from the case, it would probably be this one.

In light of events during 2001 and 2002, the eighth question might be the most important question of the case, which was actually written and assigned to my Intermediate Accounting I students about a month before Enron's problems first became known. While the amounts involved at Sunbeam seem almost tiny compared to those involved at Enron and WorldCom and Qwest, the audit failure at Sunbeam seems to be part of a continuum that starts with Waste Management. Indeed, in an article appearing in the August 12, 2002, issue of *Business Week* by John Byrne (the author of the book, *Chainsaw*), Sunbeam is noted in two graphics that illustrate the demise of Andersen, and its payment of $110 million to settle Sunbeam shareholder lawsuits is mentioned in the text of the article. While the problems Andersen had at Sunbeam played a relatively small role in the firm's destruction, it is clearly part of a pattern of "see no evil" auditing that was supposed to help the firm sell consulting services.

Given the above, perhaps the first stakeholder that should be noted as being harmed by the actions of Philip Harlow is the firm of Arthur Andersen and its 85,000 employees. This is an amazing turn of events for the firm that for years seem to symbolize integrity in the accounting profession. Other important stakeholders include the stockholders, who suffered losses of about $4.4 billion, and the various creditors. The employees of Sunbeam were harmed both during the restructuring, when about 12,000 were sacrificed so "Chainsaw" Al could make believe he was improving the future prospects of the company, and as a result of the bankruptcy

filing, which has led to about 1,700 more jobs lost. There is also the stigma attached to many former and current employees for having been associated with a company that engaged in a massive fraud. The members of the board of directors, who eventually did fire Dunlap and Kersh, should also be seen as stakeholders. This is partly due to the fact that they were all required by Dunlap to buy a substantial number of Sunbeam shares and thus suffered personal financial losses. In addition, the directors were prevented from performing their duties properly because they were lied to repeatedly. For example, as reported by Byrne (1999, p. 163), Harlow defended the bill-and-hold sales during an audit committee meeting, assuring the directors that he "saw no particular issue with this procedure in light of the explanation of the company's marketing strategy for 1998." It appears that he was either incompetent or part of the fraud, as he is charged with being by the SEC.

The students should have no problem seeing that Harlow was more concerned with keeping the management team happy that with serving the needs of the stakeholders noted above. He probably thought he was furthering the interests of Andersen by keeping a client happy, but that was very short-sighted on his part. As for motivation, students should have learned from the examples of such former Andersen clients as Enron (fees of $25 million for audit work but $27 million for consulting) and Qwest ($1.4 million for audit but $10.5 million for consulting) that Harlow must have hoped to sell various consulting services to Sunbeam. As valuable as those consulting contracts could be, Mr. Harlow should have seen his personal integrity and the firm's reputation for integrity as far more valuable.

There really cannot be any "right" answer to the ninth and final question. I have gotten a wide variety of responses to the question and as long as they reflect thought and some compassion for the difficult position this young accountant found herself in at Sunbeam, I am satisfied. Most do not blame her for quitting and state they would have done so themselves. Some do criticize her for not becoming a whistle blower, which is of course a much tougher thing to do than they realize. However, some communication with the board of directors was probably called for and the SEC does accept anonymous tips quite happily. The latter often have proved quite valuable by pushing the enforcement staff to look more closely at the accused corporations.

THE EFFECT OF MEDIA PUBLICITY ON BUSINESS STUDENTS' PERCEPTION OF EARNINGS MANAGEMENT

Rafik Z. Elias

ABSTRACT

Recent high-profile bankruptcies have renewed attention to earnings management practices. This study investigates whether high publicity of corporate bankruptcies makes a difference in the ethical perception of these practices. A survey depicting actual earnings management scenarios was administered to business students before and after these bankruptcies. The results showed a significant increase in the negative perception of earnings management actions after high publicity of unethical corporate behavior. In addition, many demographic factors such as age, experience and college major played a role in business students' perception of the ethics of earnings management. The study suggests that business students are influenced by actual unethical examples of earnings management. These results, along with demographic differences, have implications for accounting education and the accounting profession.

The accounting profession and the investing public have struggled with the issue of earnings management for a long time. Schipper (1989) noted that earnings management represents a serious problem in financial reporting and that accounting numbers could sometimes be managed to the point of uninformativeness. In late

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1998, former SEC Chairman Arthur Levitt focused the SEC's attention on this widespread practice (Levitt, 1998). A few years later, in late 2001, the public was chocked by the largest bankruptcies in U.S. history: Enron and WorldCom. Both bankruptcies were later attributed to unethical accounting practices commonly known as earnings management.

The purpose of this study is to investigate the effect of these major bankruptcies on the perception of earnings management ethics. Since many earnings management practices can be legal, but not always ethical, it is important to understand if a person's ethical evaluation changes with the disclosure of unethical behavior. The study surveys business students to examine their perception of selected earnings management practices. This perception is measured for the same students at two points in time: before and after Enron and WorldCom bankruptcies. Also, the study examines whether college major and other demographic factors such as age and work experience affect the perception of earnings management. Since ethics education is becoming more important in the business curriculum (Kuhn, 1998), this study sheds light on the effect of media publicity of unethical behavior on perception. The results will guide educators as they integrate ethics into the accounting curriculum.

The paper is organized as follows: Following this introduction is a literature review of business ethics and earnings management that highlights the major bankruptcies that occurred recently. The need for a longitudinal study is presented next, followed by an explanation of the study's objectives, methodology and results. Finally, conclusions are presented along with implications for future research, accounting education and the accounting profession.

LITERATURE REVIEW

Earnings Management

Several definitions have been offered for the practice of earnings management. Healy and Wahlen (1999) argue that earnings management occurs when managers use judgment in financial reporting or in structuring transactions to alter financial reports and mislead stakeholders. A more precise definition was offered by Fischer and Rosenzweig (1995, p. 433) as "behavior by managers to increase (decrease) current reported earnings of a firm without a corresponding increase (decrease) in long-term economic profitability." Levitt (1998, p. 14) defined it as "accounting hocus-pocus" that hides the firm's financial reality.

Empirical evidence points to external reasons for earnings management. For example, companies that miss earnings expectations will experience falling stock

prices (Kasznick, 1999), and higher cost of capital (Duncan, 2001). Evidence also points to internal motivation such as managers' bonus arrangements (Healy, 1985) and their desire to meet budget targets (Merchant, 1990).

This practice has generally been widespread (Levitt, 1998). In a survey of CFOs of large corporations, Duncan (2001) noted that 12% had actually managed earnings at the request of their superiors and 55% reported that they were asked to manage earnings but refused. Nelson et al. (2002) interviewed 253 audit managers in a large CPA firm who described 515 specific instances of their clients' attempts to manage earnings. Former SEC Chairman Arthur Levitt noted that auditors are pressured not to get in the way of companies that are trying to meet analysts' forecasts (Levitt, 1998). The evidence seems to support this assertion. Nelson et al. (2002) reported that the surveyed auditors adjusted only 44% of the earnings management attempts by major companies. The interviews showed that companies made attempts to increase and decrease net income and that auditors were more likely to adjust such attempts from smaller clients. Nelson et al. (2002) argued that managers will respond to varying levels of rule precision by varying their earnings management attempts in order to minimize the likelihood of adjustment. That means that managers are less (more) likely to manage earnings when precise (imprecise) accounting rules are involved.

The ethics of earnings management behavior have been debated with no clear resolution. Dechow and Skinner (2000) noted that although earnings management may *sometimes* be legal, it represents a moral challenge to the accounting profession. Brown (1999) noted that there is a thin line between earnings management and fraud and that many managers are reluctant to discuss this line. On one hand, some authorities, such as the former SEC Chairman, note that *any* earnings management behavior is unacceptable, regardless of materiality, since it obscures facts investors ought to know (Grant et al., 2000). Loomis (1999) agreed with this assessment and argued that earnings management actions obscure facts that investors ought to know. Some empirical evidence supports this contention. Hodge (2003) measured investors' perception of the audited financial statements over time. The results indicated that perceived earnings quality for all publicly traded companies has declined over time, so has the perceived reliability of audited financial information (Hodge, 2003). On the other hand, Parfet (2000) distinguishes between two types of earnings management. The first type deals with violations of GAAP such as reporting obsolete inventory or inappropriate revenue recognition. The second type, however, occurs when managers create stable financial performance by acceptable, voluntary business decisions. Examples include selling excess assets at the end of a period to maximize income, and working overtime at the end of the year to increase production (Parfet, 2000). Parfet (2000) argued that the latter type of earnings management is acceptable. Dechow

and Skinner (2000) agreed with this characterization of earnings management types and advocated that some earnings management should exist in capital markets. They argued that eliminating all flexibility would in turn eliminate the usefulness of earnings as a measure of performance (Dechow & Skinner, 2000). Arya et al. (2003) also commented that eliminating earnings management is an unattainable nirvana used only by politicians.

Generally believing that managers have the tendency to cross the thin line between earnings management and fraud, the SEC reported 260 fraud investigations in progress as of July 2001. The overwhelming majority of those investigations involved senior executives in major corporations (Martin et al., 2002). However, these investigations went generally unnoticed by the general public until two major corporations, Enron and WorldCom, declared bankruptcies in late 2001 and early 2002.

Corporate Ethics, Bankruptcies and Aftermath

The news of these major bankruptcies shocked the business world. The investing public lost fortunes after investing in these failing companies. Later investigation of Enron, for example, revealed that it was engaged in pushing the GAAP envelope to the breaking point with complex special-purpose entities (Millman, 2002).

Soon after their collapse, various studies have been conducted offering explanations for these business scandals. The collapse of these two giant corporations questioned many business models, such as the notion that managers should think like shareholders and align various groups' financial interests (Millman, 2002). Priest (2002) suggested that the culprit was the organizational culture that valued innovation, aggressiveness and risk-taking rather than compliance. He argued that it is important to emphasize ethics training in an organization by integrating it into its culture and tying it to its mission. Verschoor (2002) went further and argued that ethics training alone is not sufficient but rather the organization must ensure compliance with established ethics codes. Survey evidence conducted by the American Management Association (AMA), however, revealed that 86% of surveyed corporations have written corporate value codes distributed to employees and that 64% of corporate executives believed that their corporate values were linked to performance evaluation and compensation (AMA, 2002).

A possible solution to the lack of ethics problem was offered in the passage of the Sarbanes-Oxley Act of 2002, requiring corporate executives to personally certify that financial statements are fairly stated. The act also holds executives criminally liable in cases of fraud. Madison (2002) argues that this Act is a good starting point in restoring confidence in the financial reporting process. He argued that

ethics training should start in the business classroom, rather than the workplace. These calls for more ethics education focused attention on business students and their ethical orientation, training and attitudes.

Business Students and Ethics

The teaching of business ethics in American education has experienced significant growth in the last decade. Kuhn (1998) noted that more than 90% of business schools now provide business ethics training in their courses. Madison (2002) argued that accounting education has made definite strides in integrating ethics in the curriculum alongside the increasingly complex accounting standards. This growth was also attributed to the importance that employers place on business ethics. Bates (2002) reported that 82% of Human Resource managers agree that corporate leadership ethics are important in today's job seekers. Research also shows that students generally have a positive attitude toward the introduction of business ethics in the curriculum (Byerly et al., 2002) and that many prospective employees will ask hiring managers how those ethics codes translate into day-to-day activities (Bates, 2002).

The emphasis on business ethics has also taken an increasing importance in the aftermath of corporate scandals. In an open forum, Regan (2002) noted that business students believed that eroding standards, moral lapses, and increasingly managed earnings were the main reasons for the recent bankruptcies.

Extensive research has examined the impact of selected demographic characteristics such as gender, age, college major and work experience on students' ethical perceptions. For example, many studies examined gender differences in ethical perception. In a meta-analysis of the results, Borkowski and Ugras (1998) found that most studies concluded that females judged ethical infractions more harshly than males. Other studies have also been conducted on college major as a possible explanatory variable. Cohen et al. (1998) presented business students with ethically ambiguous situations and found that females and accounting majors viewed these situations as less ethical compared to males and other business majors, respectively. Jeffrey (1993) also found that accounting majors exhibited higher ethical development compared to other majors. Clikeman and Henning (2000) provided evidence of the socialization of accounting students. They argued that senior accounting students were less likely to manage earnings compared to other senior business majors. The results also showed no significant difference between accounting and other business majors as sophomores. The authors attributed the graduating seniors' differences to the socialization process that occurs during accounting education.

Other factors such as age, work experience and ethical training were also shown to be important. Elias (2002a) reported that older and more experienced CPAs found earnings management activities to be more ethical compared to younger CPAs. Also, CPAs with ethical training judged earnings management as more unethical compared to those without such training. In general, previous research found demographic factors to be important in ethical perception.

OBJECTIVES AND HYPOTHESES DEVELOPMENT

Interest in earnings management practices has peaked in the last year. Many empirical studies have investigated the existence and consequences of earnings management practices. For example, Barton (2001) provided evidence of earnings management behavior by firms using derivatives to keep earnings consistent with forecasts (i.e. income smoothing). Fewer studies have investigated the ethics of this type of behavior, however.

The recent publicity of corporate scandals has renewed interest in earnings management ethics. The stories of Enron and WorldCom bankruptcies have been on the front page news of every major newspaper. The twists and turns of these stories have made for captivating reading (Grace et al., 2002). The media ran many stories depicting the lavish lifestyle of the executives prior to their companies' bankruptcies. As a result of these bankruptcies, investors lost fortunes, most employees lost their jobs, creditors were left with a bankrupt company, and Arthur Andersen, one of the country's largest audit firms, was facing dismemberment (Sridharan et al., 2002). It seems that those who suffered most from these bankruptcies were not the masters of manipulations but innocent bystander investors and companies who invested their 401 K programs in Enron and WorldCom (Millman, 2002).

The first objective of this study is to investigate whether media publicity of corporate scandals affected students' perceptions of earnings management ethics. The study examines business students' perceptions for several reasons. First, business students will be tomorrow's accountants, managers and marketers. Ajzen and Madden (1986) developed *The Theory of Planned Behavior*. The theory holds that attitudes are an important variable affecting intentions and behavior. It is therefore important to understand current students' attitude towards earnings management practices, especially after major scandals. Second, many authors (e.g. Madison, 2002) argued that ethics education should start in the classroom. Gray and Collison (2002) argued that the only way accounting can remain a profession that serves the public interest is through a major revision of accounting degrees to emphasize more ethics education rather than training. Therefore, accounting

faculty need to have an idea of their students' perception of earnings management as ethics education is more integrated into the curriculum. Elias (2002a) found that accounting practitioners viewed operating manipulations of earnings as generally ethical. Do business students, especially accounting students, hold the same views regarding operating manipulations? Similar to Clikeman and Henning (2000), the study assumes that instructors should be familiar with their students' ethical perception, especially regarding financial statement users. Finally, previous research has shown that intervention can make a difference in students' ethical perception. Gordon (1998) tested whether extensive class readings and discussion make a difference in students' perceptions of corporate social responsibility. The results indicated that students viewed social responsibility to be more important to corporate effectiveness after the readings and discussion. Accounting instructors, therefore need to know their students' perceptions before any intervention method can be effective (Fischer & Rosenzweig, 1995).

The study's timing is also crucial since the students, similar to the general public, have been exposed to major corporate misbehavior attributed to earnings management. Based on previous research, it is expected that business students will have a more negative opinion of earnings management actions after the bankruptcies. The first hypothesis is stated as follows:

H1. Students will view selected earnings management actions as more unethical *after* corporate bankruptcies compared to *before* the bankruptcies.

Some studies have been conducted to determine the causes of earnings management ethical perception. Shafer et al. (2001) found that factors such as potential harm to financial statement users have an effect on the auditor's propensity to support aggressive accounting treatments. Elias (2002a) found that CPAs in industry viewed earnings management activities as more unethical compared to those in public accounting. Elias (2002b) examined personal moral philosophy and social responsibility as potential ethical determinants of earnings management. High relativist CPAs were compared to high idealists. High idealists generally believe that harming others is always wrong while high relativists examine each situation separately to determine the amount of harm done (Forsyth, 1980). The results indicated that high idealists viewed earnings management actions as more unethical compared to high relativists. In addition, perception of the importance of social responsibility was associated with more unethical perception of earnings management.

However, few studies examined demographic factors as determinants of earnings management ethics. Since these demographic factors were shown to make a difference in business ethics perception, the current study measures whether these factors also affect judgment about the ethics of earnings management behavior.

This objective is important for the accounting instructor as he/she intervenes to affect students' perception. For example, if females viewed earnings management as more unethical compared to males, the instructor can use class discussion to sensitize students, especially males, to the negative consequences of earnings management. The instructor also can also use the experience of older students, if different from younger ones, to explain the consequences of earnings management. Examining demographic differences will also test the socialization hypothesis developed by Clikeman and Henning (2000). For example, instructors would be interested to know if accounting students sympathized more with financial statement users after the scandals compared to other business majors, for example.

Demographic differences are examined in the context of corporate bankruptcies. Based on previous research, it is expected that females, younger and less experienced students and accounting majors will view earnings management actions as more unethical after bankruptcies compared to males, older and more experienced and other business majors, respectively. The study's second hypothesis is therefore stated as:

H2. Female students, younger and less experienced students and accounting majors will view earnings management actions as more unethical *after* corporate bankruptcies compared to *before* the bankruptcies compared to males, older and more experienced students and other business majors respectively.

RESEARCH METHOD

Measures

The questionnaire developed by Merchant (1989) is used in this study. Merchant (1989) distinguished between two types of earnings management behavior: operating manipulations and accounting manipulations. The former relate to voluntary operating decisions that management may employ to provide a stable income (e.g. delay expenditures). The latter refer to using the flexibility in financial reporting methods to alter accounting numbers. Parfet (2000) referred to some operating manipulations of earnings as "good" earnings management since managers have a responsibility to use legal means in their disposal to maximize shareholders' wealth. Based on interviews with managers, Merchant (1989) developed a questionnaire that included 13 earnings management scenarios dealing with operating manipulations (6 cases) and accounting manipulations (7 cases). The respondent assumes the role of the manager's supervisor and rates his/her perception of the manager's ethical behavior on a five-point scale ranging

from ethical to totally unethical practice. A summary of these scenarios is provided in the Appendix.

Some studies were conducted using this questionnaire. Merchant and Rockness (1994) administered it to staff accountants, managers and controllers in two corporations. The results indicated that controllers viewed the actions as more unethical compared to staff accountants. Fischer and Rosenzweig (1995) performed a factorial analysis on the questionnaire to determine whether operating and accounting manipulations can be distinguished. The results indicated that these two factors accounted for 62% of the variance in the dependent variables.

The authors also administered it to accounting practitioners and students and found that operating manipulations were judged more leniently compared to accounting manipulations. They also found that accounting practitioners judged earnings management actions more harshly compared to students. Elias (2002a) administered the questionnaire to a sample of CPAs in public accounting and industry. The results revealed that CPAs generally judged operating manipulations to be at best minor ethical infractions but accounting manipulations were serious ethical infractions.

Sample

The sample used in this study consisted of undergraduate and graduate business students in three public universities in the Southeast, Southwest and Mountain regions. The Southeastern and Mountain universities were medium size AACSB-accredited institutions offering Master degrees in business. The Southwestern university was a small non AACSB-accredited institution also offering a Master degree in business. The only requirement was that the student completed at least both Principles of Accounting courses. This was necessary in order for the student to have at least familiarity with the effect of earnings management actions. The sample consisted of junior, senior and graduate students. The questionnaire was given in various intermediate and upper-level business courses, such as Business Policy, in order to include a variety of business majors.

The first questionnaire was administered in September 2001, before the Enron and WorldCom bankruptcies. This administration resulted in a first sample of 466 students. The two major bankruptcies occurred a few months later. Significant coverage in the news media was provided of Enron and WorldCom as well as the suspected unethical actions of other major corporations such as Xerox. The same survey was then administered again in September 2002 to the same students. Only students who responded a year earlier were asked to complete another questionnaire. Another requirement was that the student must not have changed

major between the two administrations. In the second administration, the sample consisted of 322 students. This difference resulted because many students have graduated, left the universities, changed majors or were not available for another administration. Since the main purpose of the study is to provide a longitudinal analysis of the responses after a particular event (e.g. bankruptcy), the first and second responses from only the second sample of 322 students were used in this study. That means that the responses from the additional students in the first sample were not included in the data analysis. Students were matched between the first and second samples using the many demographic questions provided at the end of the questionnaire. Two researchers separately matched the students and only students who were positively matched by both researchers were included in the sample. All students were assured of confidentiality.

STUDY RESULTS

The drop-out rate between the first and second administrations (about 30% in this study) is a common concern in longitudinal studies. In order to test whether students who completed one questionnaire had different characteristics from those who completed both, the students that only completed the first questionnaire were compared to those who completed both questionnaire. The comparison was performed based on their perception of earnings management. No significant differences emerged between the two groups. In addition, students in all three universities were compared on their perception of earnings management. No significant differences were found between the students in the three universities on the perception of earnings management and therefore, they were treated as one group.

Several statistical tests were employed on the data. In order to test the first hypothesis of differences in ethical perception before and after the bankruptcies, a *t*-test was used to compare the mean responses to each scenario separately as well as the averages for operating manipulations, accounting manipulations and overall earnings management manipulations. The results of this analysis are presented in Table 1.

Generally, the results showed a significant increase in the unethical perception of earnings management after the bankruptcies, leading to the rejection of H1. Regarding operating manipulations, students viewed them as questionable practices and their negative perception increased after the bankruptcies. This was especially true for the cases involving recording expenses early and implementing liberal sales programs at year-end. Regarding accounting manipulations of earnings, the students generally viewed them as minor infractions, with the negative perception

Table 1. Business Students' Perceptions of Earnings Management.

Scenario	Pre-Bankruptcy Mean (S.D.)	Post-Bankruptcy Mean (S.D.)
Operating manipulations:	1.86(.65)**	1.97(.68)**
1. Expense early	1.17(.52)***	1.37(.73)***
2. Postpone expenses (quarterly statements)	2.60(1.1)	2.56(1.11)
3. Postpone expenses (annual statements)	2.93(1.22)	2.88(1.18)
5. Pull next year's sales	1.53(.95)***	1.73(.87)***
6. Work overtime year end	1.48(.72)*	1.59(.92)*
7. Selling excess assets	1.40(.78)**	1.53(.95)**
Accounting manipulations:	2.91(.78)**	3.10(.83)**
4. Record supplies late	3.14(.90)**	3.42(1.05)**
8. Prepay expenses (record as current expenses)	2.37(1.07)***	2.71(1.1)***
9. Write-off of inventory (inventory has value)	3.08(1.06)	3.10(1.11)
10. Write-up of inventory (previously written-off)	2.54(1.13)***	3.03(1.2)***
11. Same as No.10 (To meet profit targets)	2.91(1.2)***	3.29(1.2)***
12. Postpone paying invoices (amount immaterial)	2.74(1.11)	2.69(1.11)
13. Postpone paying invoices (amount material)	3.50(1.1)	3.39(1.2)
Overall Earnings Management Actions	2.40(.73)*	2.55(.63)*
1 = Ethical practice		
2 = Questionable practice		
3 = Minor infraction		
4 = Serious infraction		
5 = Totally unethical		

*$p < 0.10$.
**$p < 0.05$.
***$p < 0.01$.

also increasing after the bankruptcies. In addition, scenarios that specifically violated GAAP such as writing-up previously written-off inventory and not recording expenses on time were viewed as more unethical. Overall, the students viewed earnings management actions as questionable to minor infractions and that perception was more negative after the publicity of unethical corporate behavior.

In order to test H2 regarding the effect of demographic factors before and after the bankruptcies, each earnings management manipulation factor (i.e. operating, accounting and total) was treated separately as a dependent variable and each demographic factor was analyzed separately using repeated-measures ANOVA. For example, regarding gender, the data was analyzed in a 2 (gender) 3 2 (time) repeated measures ANOVA with a test of interaction of Gender × Time. This type of procedure would allow the comparison of males' and females' perceptions before and after the bankruptcies and provide means for each time period. A comparison of these means would allow a test of differences. In general, there

Table 2.

ANOVA Results		Mean Perception of Earnings Management			
GENDER		Operating			
Operating variable	F-value	Males before	Females before	Males before	Males after
Gender	4.56*	1.84*	1.92*		
Time	3.59*	Males after	Females after	Females before	Females after
Gender × Time	2.11*	1.90*	1.99*		
		Accounting			
Accounting variable	F-value	Males before	Females before	Males before	Males after
Gender	5.23**	2.90**	3.01**	2.90**	3.06**
Time	4.25*	Males after	Females after	Females before	Females after
Gender × Time	3.66*			3.01*	3.11*
		Total manipulations			
Total variable	F-value	Males before	Females before	Males before	Males after
Gender	3.48*			2.39*	2.49*
Time	3.79*	Males after	Females after	Females before	Females after
Gender × Time	1.98			2.42*	2.57*
AGE		Operating			
Operating variable	F-value				
Age	2.15*	<25	25 or >	<25	<25
Time	2.57*	Before	Before	Before	After
Age × Time	1.89			1.85**	2.00**
		<25	25 or >	25 or >	25 or >
		After	After	Before	After

Accounting variable	*F*-value	Accounting						
Age	6.89**	<25	25 or >	<25	<25			
Time	7.23***	Before	Before	Before	After			
Age × Time	3.88*	2.86**	2.96**	2.86*	2.97*			
		<25	25 or >	25 or >	25 or >			
		After	After	Before	After			
		2.97***	3.15***	2.96***	3.15***			
		Total manipulations						
Total variable	*F*-value							
Age	4.16*	<25	25 or >	<25	<25			
Time	3.09*	Before	Before	Before	After			
Age × Time	1.69	2.36*	2.43*	2.36*	2.53*			
		<25	25 or >	25 or >	25 or >			
		After	After	Before	After			
				2.43*	2.57*			
Experience (years)		Operating						
Operating variable	*F*-value							
Experience	4.27*	<5	5–10	>10	<5	<5	5–10	5–10
Time	5.02*	Bef.	Bef.	Bef.	Bef.	Aft.	Bef.	Aft.
Exper. × Time	2.89*	1.79*	1.85*	1.92*	1.79**	1.95**		
		<5	5–10	>10	>10	>10		
		Aft.	Aft.	Aft.	Bef.	Aft.		
Accounting variable	*F*-value	Accounting						
Experience	5.64*	<5	5–10	>10	<5	<5	5–10	5–10
Time	4.82*	Bef.	Bef.	Bef.	Bef.	Aft.	Bef.	Aft.
Exper. × Time	3.23*				2.88**	2.97**	2.94*	3.00*
		<5	5–10	>10	>10	>10		
		Aft.	Aft.	Aft.	Bef.	Aft.		
					2.95**	3.11**		

Table 2. *(Continued)*

ANOVA Results		Mean Perception of Earnings Management						
		Total manipulations						
Total variable	*F*-value							
Experience	3.99*	<5	5–10	>10	<5	<5	5–10	5–10
Time	2.57*	Bef.	Bef.	Bef.	Bef.	Aft.	Bef.	Aft.
Exper. × Time	1.95				2.36*	2.53*	2.40*	2.53*
		<5	5–10	>10	>10	>10		
		Aft.	Aft.	Aft.	Bef.	Aft.		
Ethics education		Operating						
Operating variable	*F*-value	Yes	No	Yes	Yes			
Ethics	1.68	Before	Before	Before	After			
Time	2.45*	Yes	No	No	No			
Ethics × Time	1.01	After	After	Before	After			
				1.83*	1.95*			
		Accounting						
Accounting variable	*F*-value	Yes	No	Yes	Yes			
Ethics	1.58	Before	Before	Before	After			
Time	2.53*							
Ethics × Time	1.33	Yes	No	No	No			
		After	After	Before	After			
				2.99*	3.07*			
Total variable	*F*-value	Total manipulations						
Ethics	1.56	Yes	No	Yes	Yes			
Time	2.19*	Before	Before	Before	After			
Ethics × Time	1.01							
		Yes	No	No	No			
		After	After	Before	After			
				2.37**	2.53**			

College major		Operating			
Operating variable	*F*-value	Acc.	Other	Acc.	Acc.
Major	5.09^{**}	Before	Before	Before	After
Time	6.23^{***}	1.81^{*}	1.95^{*}	1.81^{**}	1.96^{**}
Major × Time	4.26^{*}	Acc.	Other	Other	Other
		After	After	Before	After
		Accounting			
Accounting variable	*F*-value	Acc.	Other	Acc.	Acc.
Major	7.64^{***}	Before	Before	Before	After
Time	6.98^{**}	2.86^{**}	3.01^{**}	2.86^{***}	3.09^{***}
Major × Time	3.56^{*}	Acc.	Other	Other	Other
		After	After	Before	After
				3.01^{**}	3.13^{**}
Total variable	*F*-value	Total manipulations			
Major	3.96^{*}	Acc.	Other	Acc.	Acc.
Time	4.23^{*}	Before	Before	Before	After
Major × Time	1.86			2.36^{*}	2.51^{*}
		Acc.	Other	Other	Other
		After	After	Before	After
				2.43^{*}	2.57^{*}

1 = Ethical practice
2 = Questionable practice
3 = Minor infraction
4 = Serious infraction
5 = Totally unethical

$^{*}p < 0.10$.
$^{**}p < 0.05$.
$^{***}p < 0.01$.

were significant differences on ethical perception of earnings management based on demographics. The results are provided in Table 2.

Regarding gender, before bankruptcies, female students viewed operating and accounting manipulations of earnings as more unethical compared to males. After bankruptcies, females viewed only accounting manipulations as more unethical compared to males. There was a significant increase in the negative perception of accounting manipulations and overall manipulations of earnings for males and females. However, there was no significant increase regarding operating manipulations after corporate bankruptcies.

There was a significant age factor in the perception of earnings management ethics. Older students (25 years or older) viewed earnings management actions as more unethical compared to younger (traditional) students before and after the bankruptcies. Younger students viewed operating manipulations more negatively after the bankruptcies compared to older students. Both groups viewed accounting and overall manipulations as significantly more unethical after the bankruptcies.

There were no significant differences between more and less experienced students before or after the bankruptcies on ethical perceptions. However, there was a significant effect to the work experience variable in changing students' perception. Students with less than five years of work experience were more likely to view the earnings management actions as more unethical after the bankruptcies compared to those with more experience. The experience effect is more noted with those students with more than 10 years of experience whose opinion regarding earnings management was not significantly different before and after the bankruptcies.

Regarding the college major variable, other business majors viewed earnings management actions as more unethical compared to accounting majors before but not after the bankruptcies. Accounting majors viewed operating and accounting earnings manipulation actions as more unethical after the bankruptcies. However, other business majors did not view operating actions as more unethical as a result of corporate bankruptcies. Finally, there was a significant increase in the negative perception of earnings management for those students without ethics education. There was no such significant increase for those who have received formal ethics education.

DISCUSSION AND IMPLICATIONS

Generally, the results of this study support the notion that students view earnings management actions as more unethical after negative publicity. Even though operating manipulations of earnings are still viewed, similar to previous studies,

as more ethical than accounting manipulations, students' impression of many operating manipulation actions became more negative after the scandals. This conclusion was especially true for younger and less experienced students. These results suggest that as accounting educators try to explain the negative implications of earnings management, they have to pay attention to the students' age and experience levels. Future research can investigate the reasons why older and more experienced students are not as influenced by negative publicity as other students. May be, due to their age and experience, they perceive these corporate bankruptcies and scandals as a common occurrence and they are inclined to believe that these scandals will occur again in the future.

Results regarding college major provided some good news. It seems that all business majors viewed earnings management actions as more unethical after the bankruptcies. This conclusion was especially true among accounting majors who also felt more negative about operating manipulations of earnings compared to other business majors. A possible explanation is that accounting majors feel that their profession's integrity and even survival depends on the ethical practices of its members. Since Arthur Andersen received substantial negative publicity along with Enron and WorldCom executives (Grace et al., 2002), accounting students believe that they should hold high moral standards in their future career. An interesting finding is that non-accounting majors did not view operating manipulations as more unethical after the bankruptcies. Since these students are the future corporate managers, it is worth noting that they still viewed operating manipulations as legitimate actions by corporate managers who are trying to maximize shareholders' wealth (Parfet, 2000). Overall, the results regarding college major point to the students' orientation toward stakeholders' interest. This is especially true for accounting majors. Brinkmann and Sims (2001) advocated the use of stakeholder-sensitive business ethics teaching in the classroom. The results of the study tend to support this recommendation.

The conclusion that business students are influenced by negative publicity about corporate behavior has implications for accounting education. The business professor can emphasize actual cases similar to Enron and WorldCom in business and especially accounting classes. This may have a similar impact on students' ethical perception. Gordon (1998) found that readings, discussions and cases in an accounting course sensitized students to the importance of corporate social responsibility. This is an interesting avenue for future research on earnings management ethics. A future study can investigate whether an earnings management case study has the same effect on students' perception compared to actual media publicity.

The results of this study have to be interpreted in light of the following limitations. The earnings management scenarios used in this survey were

developed by Merchant (1989). Even though they have been tested and used in many previous studies, they are not as creative or complex as the ones employed by Enron, WorldCom or other companies under investigation. Therefore, the results may have been different if the same actions perpetrated by these corporate executives were presented to the business students. In addition, a competing hypothesis should be considered. It is possible that part of the ethical perception differences one year later is due to students receiving more ethics education during this year and not necessarily due to the publicity of bankruptcies.

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APPENDIX

Summary of Earnings Management Scenarios
(Adopted from Merchant, 1989 and Elias, 2002b)

Indicate your judgment as to the acceptability of the following scenarios as supervisor of a division's general manager.

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1 = Ethical practice
2 = Questionable practice. I would say nothing to the manager, but it makes me uncomfortable.
3 = Minor infraction. The manager should be warned not to engage in the practice again.
4 = Serious infraction. The manager should be severely reprimanded.
5 = Totally unethical. The manager should be fired.

Operating Manipulations
(1) Incurring expenditures this year, planned for next year, because current year's profit is ahead of budget.
(2) Postponing unnecessary expenditures in order for the division.
(3) to meet current budgeted profit targets.
(4) Postpone from February and March till April to meet quarterly targets.
(5) Postpone from November and December till January to meet annual targets.
(6) Offering liberal sales terms at end of year to pull next.
(7) year's sales to meet current year's sales targets.
(8) Ordering manufacturing to work overtime to ship everything possible by end of year.
(9) Selling some excess assets and realizing profit.

Accounting Manipulations
(4) Not recording supplies received in December until February.
(8) With division profit targets exceeded for the year, manager orders prepaying next year's expenses and records them as current year's expenses.

(9) With division profit targets exceeded for the year, manager orders write-off of inventory that he knows can be sold in the future for close to full price.
(10) Next year, customer buys written-off inventory. Manager reverses previous write-off, to be able to continue working on development projects that have been delayed due to budget constraints.
(11) Same as previous one, except motivation is to meet profit targets.
(12) To meet profit targets, manager asks a consulting firm, currently performing services for the division, not to send an invoice until next year. The amount is immaterial.
(13) Same as previous except that the amount is material.

CARBON DIOXIDE EMISSIONS AND DISCLOSURES BY ELECTRIC UTILITIES

Martin Freedman and Bikki Jaggi

ABSTRACT

Carbon dioxide emissions are considered to be one of the main culprits in global warming and the Kyoto Protocol specifically targets reductions in carbon dioxide to reduce global warming. Because the fossil burning electric utility plants are the primary industrial source of carbon dioxide emissions, we examine how effective the U.S. electric utility companies have been in reducing carbon dioxide emissions. We evaluate 1998 carbon dioxide emissions in relation to the emissions of the base year of 1990 set by the Kyoto Protocol. We also examine whether adequate disclosures are being made by the utilities to reflect their pollution performance. The findings show that the total amount of carbon dioxide emissions increased by 35% in 1998 compared to 1990, but on a relative basis, they decreased from 205 to 204 lbs/MMBTU. Though we detect some support for a positive association between pollution disclosures and pollution emissions, the electric utilities in general do not disclose much about global warming or carbon dioxide.

1. INTRODUCTION

Global warming, an important environmental issue, is becoming of major concern to the general public as well as to environmentalists in the United States, and

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it has also recently started attracting attention of world leaders. The meeting of 160 nations held in Kyoto, Japan, in 1997 discussed this problem and agreed to reduce the pollution emissions. This agreement is known as "Kyoto Protocol," and it was discussed again in a meeting of 160 nations held in Morocco in November 2001, where a modified agreement was ratified to meet the concerns of certain nations. According to the modified protocol, emissions of three greenhouse gases, i.e. carbon dioxide, methane and nitrous oxide, need to be reduced by 5% from the 1990 level by 2012 (Revkin, 2001).

The main culprit of global warming is, however, considered to be the carbon dioxide from among the three greenhouse gases, and great emphasis is being placed on its reduction. Although the USA did not support the modified agreement, it would be hard pressed to avoid compliance with the agreement when the rest of the industrialized world is supporting it and international cooperation among major nations is assuming greater importance in the changed international environment. Furthermore, Japan and the European Union (the fourth and second largest emitters of carbon dioxide) have ratified the treaty and Japan has urged U.S. baking for the treaty (French, 2002). Russia, the third largest emitter of carbon dioxide is expected to ratify the treaty by the end of 2002 (French, 2002).

The primary industrial source of carbon dioxide emissions in the U.S. and also in other industrialized nations is considered to be electric utilities, especially those with coal-fired plants. The U.S. Clean Air Act of 1990 specifically targeted electric utility plants for reduction in pollution emissions. Therefore, it would be of interest to regulators, researchers and corporate stakeholders to know how effectively the electric utilities in the United States are dealing with the environmental concerns, especially with regard to reduction in carbon dioxide emissions. The plants targeted by the 1990 Clean Air Act would be of special concern to regulators and investors. In view of inadequate or fraudulent disclosures made by several companies (e.g. Enron, WorldCom), investors and other stakeholders have recently started paying special attention to different types of disclosures, such as operating performance of the companies, contracts with other entities, off-balance sheet financing, and other activities which may have an influence on the companies' future operating performance, which would also include pollution performance. Investors and creditors need detailed disclosures to evaluate their risk, and the other stakeholders need it to evaluate their own association with the company. In the case of inadequate or inaccurate disclosures, the firms are being severely penalized by investors. It can, therefore, be argued that inaccurate pollution disclosures by the electric utilities are likely to be perceived with skepticism by investors, creditors and other stakeholders, which would not be in the best interest of the company.

In this study, we examine whether the electric utilities are keeping the stakeholders fully informed about their pollution performance through adequate

and full disclosures, especially with regard to the desired level of pollution levels set by the Kyoto Protocol. First, we examine how effectively the electric utilities are moving in the direction of reducing carbon dioxide emissions in relation to the base year of 1990, with special emphasis on the worst polluters as identified by their 1990 pollution disclosures. Then, we evaluate pollution disclosures of electric utilities to examine whether the companies are making adequate disclosures on their pollution performance, which accurately reflect their pollution performance. A pollution score based on the 1998 pollution disclosures is used to examine whether there is an association between pollution disclosures and pollution performance. We find some support for the positive association between pollution disclosures and pollution emissions, i.e. the companies producing more carbon dioxide are disclosing more pollution information. But overall, the electric utilities have not been disclosing much about their pollution performance, probably because no significant progress has been made in reducing 1998 pollution emissions in relation to the 1990 pollution emission level.

The rest of the paper is organized as follows: In Section 2, we provide background for this study. In Section 3, we discuss research design, including data collection procedures, calculation of pollutants, and statistical analyses. The results are discussed and analyzed in Section 4. Section 5 contains conclusion and limitations of the study.

2. BACKGROUND FOR THE STUDY

2.1. Carbon Dioxide and Electric Utilities

Since electric utilities are the largest industrial producer of carbon dioxide in the developed countries, they have been a key target for the Kyoto Protocol. Generation of electricity in the U.S. is estimated to have produced 35% of total carbon emissions in 1996 and it is estimated that emissions are expected to reach about 38% by 2020 (Striano, 1998). About 80% of carbon emissions produced by electric generators are from burning coal, and the other 20% are from natural gas and petroleum burning. As observed by Knapp (1999), the demand for electricity has been increasing and it is expected to increase further in the future. This increased demand for electricity will create a dilemma for electric utilities because they will find it difficult to meet the increased demand and control pollution at the same time. A significant reduction in pollution will only be possible either by producing electricity more efficiently or by changing the fuel sources. Thus, the demand for electricity on one hand, and the increased pollution resulting from production of more electricity on the other, have placed electric utility companies in a very

difficult position. This situation is even more acute for coal-fired and old electricity generating plants. Presently, the estimated average age of coal-fired plants in the U.S. is about 35 years. As a result of old age and inefficiencies, these plants are associated with emission of a substantial amount of carbon dioxide. A reduction in pollution emissions will require that either these plants are renovated, closed down or replaced with new and more efficient plants. Building of new modern plants is, however, not an easy solution because it involves major expenditures of funds and requires considerable time and effort for their completion.

A feasible alternative for reducing carbon dioxide is to consider substituting coal with natural gas or oil. At this time, it is, however, not clear whether there are enough reserves of other fossil fuels to meet the country's growing need for electricity. Though nuclear energy does not create air pollution (except if there is a discharge of radioactive material), it is fraught with potential dangers at this time. There are health problems if radioactive material is emitted. Then, there are problems related to safe disposal of waste material. Additionally, decommissioning of nuclear plants has not been dealt with satisfactorily. Accidents like Chernobyl, Three-Mile Island and the one in Japan do not help in making a strong case for nuclear power.

The development of other energy sources, such as, hydro, solar, wind, geothermal, etc. has not yet reached the level that society can rely on these resources in the near future. It is, however, possible that technology and basic science may lead to new sources and efficiencies that may solve or mitigate the problem by 2012, but it is difficult to plan or make policy decisions based on the expectation that alternative energy sources may become available in the future.

The above discussion suggests that generation of electricity by the available energy resources will continue to play an important role in the world's economies. Given a reasonable probability that the U.S. will officially agree to the reduction of emissions according to the Kyoto Protocol, the electric utilities, especially those relying on fossil-fuel plants, will have to undergo major changes within the next decade. Fuel switching and/or the use of more efficient plants are the feasible solutions to achieve the needed reductions in pollution emissions. On an ad hoc basis, companies may use a carbon dioxide emissions trading scheme to show reduced emissions, instead of actually reducing their emissions.

It may, however, be pointed out that there will be differential impact of reducing carbon dioxide at the plant level within a firm. The differential impact can be expected between plants that use coal and those that use other fossil fuels to generate electricity, because coal burning produces much more carbon dioxide per kilowatt-hour of electricity generated compared to other fossil fuels (EIA, 1996). Presently, total pollution generated in the United States by coal-burning plants is much more than that produced by the use of other fossil fuels, as indicated by the total metric tons of carbon dioxide produced by plants in these groups. It has been

reported that out of 5484.9 million metric tons of carbon dioxide emitted in to the atmosphere in 1996, approximately 1690 million metric tons were generated by coal-fired electric generating plants (EIA, 1996). In contrast, natural gas and oil burning electric generating plants contributed 147.8 and 56.8 million metric tons of carbon dioxide, respectively, in 1996.

Given the nature of electricity generating plants in the United States, the Kyoto Protocol presents a daunting task to the U.S. electric utilities, especially to the fossil-fuel burning electric utility companies, to reduce pollution emissions to the desired level. A comparison of a recent year's carbon dioxide emissions by U.S. companies with the 1990 benchmark figure will show whether electric utilities have become aware of the immensity of the task, and are moving in the direction of reducing pollution. Reducing carbon dioxide emissions is a long-term project. If the electric utility companies, especially those that greatly rely on coal-fired plants, are not addressing this problem today, they may find themselves using costly stop-gap measures tomorrow.

2.2. 1990 Clean Air Act and Electric Utilities

Because the electric utility industry is considered to be a major contributor to air pollution, Title IV of the 1990 Clean Air Act especially targeted the electric utilities. One hundred and ten coal-fired electric utility plants were required by the Act to achieve certain emission levels for sulfur dioxide. These plants were also given nitrogen oxide limits that were to be achieved in 1996. Sulfur dioxide limits were set for plants other than one hundred and ten coal-fired for year 2000 (EPA, 1990).

3. RESEARCH DESIGN

3.1. Hypotheses

Though the companies need to start at the plant level to reduce carbon dioxide emissions, their pollution disclosures can only be evaluated at the firm level. Therefore, the hypotheses on reduction in pollution emissions are developed at the plant level and for pollution disclosures at the firm level.

3.2. Pollution Emissions

Since coal-fired electric utilities are the largest source of industrial carbon dioxide emissions in the U.S., we focus on the coal-fired electric utilities. In order to

evaluate pollution emissions of electric utilities, we need a benchmark against which the emissions of a particular year can be compared. The Kyoto Protocol set the year 1990 as the benchmark, and taking the lead from the Kyoto Protocol, we use the 1990 emissions for reducing pollution. Next, we select the year for evaluation of pollution emissions against the benchmark. At the time of this study, data available for the most recent year was for 1998. Since the Kyoto Protocol was signed in 1997, an evaluation of 1998 pollution emissions would indicate whether the Protocol's signals were taken seriously by the electric utilities. Thus, we evaluate whether the 1998 pollution emissions for carbon dioxide were lower compared to pollution emissions for the base year of 1990.

If the electric utilities have been concerned with the pollution problem and they took the signals provided by the Kyoto Protocol seriously, they would have initiated the process for pollution reduction. If the companies neglected the Protocol's signals and ignored the pollution problem, there could be serious consequences. First, an important consequence for not truthfully reporting information on their pollution performance may be the negative investor reaction. Second, the regulators may be forced to impose regulations to reduce the pollution emissions. Third, the companies will have to adopt stop-gap measures or they will have to switch to alternative fuels when the pollution emission requirements are enforced, and both of the alternatives would be quite expensive. Fourth, the companies failing to meet the desired levels set by the regulators could face penalties, such as, fines or closure of plants. Finally, by not reducing carbon dioxide emissions, the company would continue to contribute to global warming.

We evaluate carbon pollution emissions of electric utilities on the following hypothesis:

H1. The 1998 carbon dioxide emissions of electric utilities are lower compared to their 1990 emissions.

As mentioned earlier, high polluters would be of special concern to regulators as well as investors and other stakeholders. Therefore, the enforcement of emission requirements will be stricter and it will have a comparatively higher effect on the electric utilities that continuously exceed the pollution limits. These companies will be identified as the worst polluters. The investors' and other stakeholders' reaction to worst polluters would be more negative compared to utilities that deal with their pollution problems.

It can be argued that the electric utilities that were identified as the highest polluters in 1990 would undertake special measures to reduce their pollution emissions if they are seriously concerned about the investors', regulators' and other stakeholders' reaction. They would, therefore, not like to be judged as the worst polluters in 1998. Instead, they would try to improve their image by reducing

their pollution emissions in 1998. If the 1990 highest pollution emitters remain the highest pollution emitters in 1998, they would be sending signals to regulators that they could be the problem firms, and this would attract the regulators' special attention. Therefore, we do not expect the highest 1990 polluters to be highest 1998 polluters, and we test this expectation on the following hypothesis:

H2. The 1998 highest emitters of carbon dioxide are not the same as in 1990.

3.2.1. Pollution Disclosures

In the absence of any requirement for disclosure of pollution information, there is a question as to why the electric utilities should provide pollution information to stakeholders on a voluntary basis. Disclosure of pollution information on a voluntary basis has been discussed fairly extensively in the management and accounting literature. From a normative societal perspective, voluntary pollution disclosure can be justified based on a stakeholders' approach to disclosures (e.g. see Clarkson, 1995; Roberts, 1992; Ullmann, 1985). In the accounting literature this approach as also been termed the user utility approach (see Guthrie & Parker, 1990).

It can be argued that the stakeholders would like to know the company's policies and plans for dealing with pollution problems in general, and global warming, in particular. The stakeholders' need for this information would especially assume greater importance if the pollution expenditures are likely to have a profound impact on different groups of stakeholders (e.g. see Clarkson, 1995).

The potential impact of heavy capital expenditures is especially likely to be on the company's stock prices, and this effect would be of special concern to investors and creditors. The other stakeholders will also be concerned about heavy capital expenditures because of their impact on the company's overall performance. For example, the consumers (electric utility customers) will be concerned about the increases in the cost of electricity as a result of these expenditures, and the suppliers, especially the fuel supplying companies, will be concerned because the choice of fuel that will determine their continued association with the company. The employees will be concerned if their jobs are redefined or eliminated, and the local community would like to know whether plant closures or production reduction were planned. The global community may also be interested in the impact that the company may have on global warming.[1]

Given the stakeholders' concerns, we examine whether pollution emissions are being adequately and truthfully disclosed. In the absence of adequate disclosures, the stakeholders would not be able to make proper evaluation of the companies' pollution policies and performance. Although 2012 is about ten years away, it is not too early for the stakeholders to know whether the Electric Utilities will meet the Kyoto Protocol requirements. Thus, an evaluation of pollution emissions

will provide information to show whether the companies are making satisfactory progress toward meeting the Kyoto Protocol's agreement on pollution emissions. This information will also be useful for regulators to develop the disclosure regulations on pollution emissions. If adequate voluntary disclosures are not being made, mandatory disclosure requirements need to be evaluated to ensure that the availability of adequate information to investors for evaluation of their risk.

The Kyoto Protocol has especially made the stakeholders' more aware of the pollution problem, which could result in a strong demand for pollution information, especially by investors, creditors, regulators and environmentalists. The need for this information could be of special importance to investors to evaluate whether the companies are meeting the emission requirements set under the Protocol. The investors would be concerned about future profitability of the companies if the regulators were to monitor pollution emissions on the basis of the limits set by the Protocol. If reliable and adequate pollution information would not be disclosed by the companies, the stakeholders, especially investors, would look for this information from other sources. Furthermore, in the absence of reliable and adequate pollution information, investors are likely to assign higher risk to these companies. Therefore, it would be in the best interest of management to provide relevant and adequate pollution information to the stakeholders so that they could properly evaluate their risk. Thus, it can be argued that the management of all electric utilities, especially those with higher emissions levels, are expected to have a strong incentive to disclose detailed information on pollution related activities of the company, and this expectation is tested on the following hypothesis:

H3. Pollution disclosures concerning carbon dioxide emissions are positively associated with the carbon dioxide emissions levels.

3.3. Sample Selection

Under the 1990 Clean Air Act, all electric utility plants above a minimum size are required (since 1995) to keep track of emissions through a continuous emission monitoring system (CEMS). Emissions of sulfur dioxide, nitrous oxides and carbon dioxide are tracked hourly and reported to the Environmental Protection Agency (EPA). Thus, these plants keep track of their actual measures of emissions of air pollutants. This study is based on all coal-fired plants that report CEMS to the EPA (ETS/CEM, 1999).

Because in 1990, information on emissions was available only from the reports that the electric utilities filed with the Department of Energy, the initial sample was

based on the availability of reports with the Department of Energy. It is noteworthy that the Department of Energy as well as the Environmental Protection Agency (EPA) uses these reports for calculation of pollution emissions using a formula. These pollution reports are then made available by the EPA on their web site (EPA, 1998). Thus, the sample selection is based on the criterion of availability of the pollution report on the EPA web site. If a company does not appear on the web site, it is excluded from the sample.

For 1990, the population consisted of 395 coal-fired plants that included 109 plants that were targeted for sulfur dioxide reduction by the first phase of the 1990 Clean Air Act. In 1998, the EPA included 415 coal-fired plants in the population of which 108 were first phase plants. This study included the whole population in each year.

Pollution disclosure data could be obtained for these 66 companies out of 100 electric utilities that generated the most carbon dioxide emissions in 1996. Data for the remaining 34 companies were not available either because they were government companies (e.g. Tennessee Valley Authority) or they did not file form 10 K with the SEC. Thus, the disclosure sample consisted of 66 companies.

3.4. Data Collection

The 1990 pollution emission data were obtained from the EPA web site, and 1998 data were identified directly from the CEMS data placed on line by the EPA (EPA, 2000). Although the 1990 data may be less accurate than the 1998 data, the degree of accuracy is, however, not critical for the purposes of this study because slight differences will not distort the results.

In addition to the annual reports to shareholders and Form 10-Ks filed with the Securities and Exchange Commission, pollution information may also be available in the articles in the media and/or environmental reports issued by the companies. We, therefore, requested the companies to send us a copy of their environmental reports in addition to their annual reports. We also conducted a search for media stories concerning specific companies and their concerns about global warming or pollution information. No useful information was gleaned from reports in the news media and no environmental reports were provided by the companies.

Information disclosed in the annual financial statements and in 10 Ks was compared for a sample of firms for 1998. The results indicated that the information contained in the annual reports was at best repeated in 10 Ks. Thus, based on this assessment, we decided to use 10 Ks for obtaining information on disclosures of pollution emissions of electric utilities.

3.5. Pollution Disclosure Score and Regression Model

Since disclosures are at the company level, we need to convert the plant level emissions obtained from CEMS to the company level. The National Resources Defense Council and Public Service Electric and Gas have compiled an emissions ranking of electric utility companies for 1996 (NRDC and PSE&G, 1998). First, they determine the top 100 electric generating companies for 1996 and then rank their carbon dioxide emissions. Based on their methodology, two ranking schemes can be developed: one based on the total carbon dioxide emissions by company and the other based on emissions per megawatt hour. Although both ranking schemes are useful in determining the companies that may have the biggest problem with reducing carbon dioxide emissions, the relative measure provides a fairer measure of performance. In the total emissions ranking, the size becomes a critical variable. That is not to say that being big and emitting more carbon dioxide into the atmosphere than other firms is a positive trait. However, using the relative ranking helps to control for the size as being the critical factor.

A method of content analysis is employed to evaluate the pollution disclosures. Categories are determined and analyzed based on the substance of what the companies disclosed rather than the quantity (amount) of disclosures, such as, counting lines or words, etc. This method has been adopted in most of the existing environmental accounting studies (e.g. Freedman & Wasley, 1990; Wiseman, 1982). Because evaluation of disclosures in this study is limited to global warming, the categories are especially tailored to the potential impact of the Kyoto Protocol on the company. The categories evaluated are as follows:

(1) Mention of anything about global warming, Kyoto Protocol or the need for a reduction in carbon dioxide emissions.
(2) Mention of how the company plans to address the problem.
(3) Mention of something about potential costs.
(4) Information on the costs that the company expects to incur for reducing carbon dioxide emissions.
(5) Information on actual carbon dioxide emissions.

The association between emission levels and the disclosure score is evaluated on the basis of an OLS regression model. In order to control for the effect of factors other than pollution emissions, we use the following three control factors in the regression equation: firm profitability (ROE), size (Log of total assets), and market risk (Beta). The use of these control variables would enable us to isolate the influence of company size, its profitability and market risk on pollution disclosures and thus we will be able to focus on the examination whether there is association between pollution emissions and pollution disclosures. We run separate

regressions on two pollution emissions measures, and these are: CO_2tons and lbs/MMBTU.

$$\text{DiscScore}_{it} = \alpha_i + \beta_1 \text{Emission}_{j,it} + \beta_2 \text{ROE}_{it} + \beta_3 \text{TotAssets}_{it} + \beta_4 \text{Beta}_{it} + \varepsilon_i$$

where, DiscScore_{it} = Disclosure score of firm *i* for period *t*, $\text{Emission}_{j,it}$ = Pollution Emissions of firm *i* for period *t* and emission type *j*, where $j = 1$ and 2 ($j = 1$ means carbon dioxide emissions calculated in terms of CO_2tons, and $j = 2$ means in terms of lbs/MMBTU), ROE_{it}=Return on equity for firm *i* for period *t*, TotAssets_{it} = Log of total assets for firm *i* and period *t*, Beta_{it} = Market Risk for firm *i* and period *t*, $\alpha_?$ = Constant for firm *i*, $\beta_{1\ldots4}$ = Coefficients 1–4, ε_i = Error term.

4. RESULTS AND ANALYSES

4.1. Carbon Dioxide Emissions by Plants in 1990 and 1998

Data on carbon dioxide emissions for 1990 and 1998 are provided in Table 1.

The results show that 395 coal-fired plants emitted 1501 million tons of carbon dioxide into the atmosphere in 1990. The 109 plants targeted by phase 1 of the 1990 Clean Air Act emitted 446 million tons with an average emission in lbs/MMBTU of 202.73. The remaining 286 other coal-fired plants emitted 1056 million tons with an average emission of 206.32 lbs/MMBTU.

It is interesting to note that the plants cited in the Clean Air Act emitted less carbon dioxide per BTU than other plants. The formula to calculate carbon dioxide emission utilizes the variable of carbon content per ton of coal (Marland & Rotty, 1983). Since the major reason that the firms got cited was that they produced more

Table 1. Overall Plant-Wide Emissions 1990 and 1998.

Year	# of Plants		CO_2 Emissions (Millions of Tons)	CO_2 Emissions lbs/MMBTU
1990	109	Phase I	446	202.72
1990	286	Other plants	1056	206.32
1990	395	Total plants	1501	205
1998	108	Phase I	622	204
1998	307	Other plants	1405	204
1998	415	Total plants	2026	204

sulfur dioxide than the average plant, their coal content would be less per ton of coal. Sulfur has, however, essentially replaced some of the carbon in the coal. Countering that view, there is also an efficiency factor. The plants cited in the Act tended to be older and less efficient plants, which probably needed more coal to burn to produce a kilowatt of electricity. Therefore, the lbs/MMBTU should be higher for plants named in the Act. Based on these results, it appears that the sulfur content of coal is a more critical factor.

Applying the 5% reduction formula by using 1990 as a benchmark as agreed upon in the Kyoto Protocol, the coal-fired plants' carbon dioxide emissions should not be more than 1426 million tons (95% of the total 1990 emissions). In order to produce the same amount of electricity as they did in 1990 and meet the 5% reduction in emissions, the plants would be required to reduce the lbs/MMBTU from 205 to 194.75. The results show that both electricity production and carbon dioxide emissions have, however, increased since 1990. Although the number of plants on line and in the 1998 EPA database is greater than in 1990 (415 in 1998 compared to 395 in 1990), the databases essentially capture the total carbon dioxide emissions by coal-fired plants both in 1990 and 1998.[2]

Remembering that the demand for electricity will continue to increase, the electric utility industry will require a major transformation if the U.S. is to fulfill its part of the Kyoto Protocol. These results are thus mixed. Though, the plants reduced their emission/MMBTU from 205 to 204, the emissions on an overall basis increased by 35% (1501–2026 million tons). The high polluting plants targeted by Phase I of the 1990 Clean Air Act increased their carbon dioxide emissions over the 1990–1998 period. These results are contrary to our expectations, and thus, they do not support Hypothesis 1.

It appears that the burning of low sulfur coal reduced sulfur dioxide emissions (EPA, 1999), but it led to an increase in carbon dioxide emissions. Therefore, in order to meet the goals of the 1990 Clean Air Act and the requirements of the Kyoto Protocol, the electric power companies need a comprehensive solution to the problem. Assuming that the U.S. Congress approves the Kyoto Protocol, the electric utilities will be required to undertake drastic measures to reduce emissions of carbon dioxide.

4.2. Highest Emitters of Carbon Dioxide in 1998 and in 1990

Carbon dioxide emissions of electric utility plants vary by fuel type, and also within the fuel type. Based on 1996 emission data (NRDC and PSE&G, 1998), emissions for coal-fired plants are expected to be within a range of

Table 2. 1990 Plants with Highest CO_2 Emissions.

Plant	1990 Company	From 286 Cos. Location	CO_2 lbs/MMBTU
River Rouge	Detroit Edison	MI	268.66
Rafuse & Coal	City of Columbus	OH	237.81
Holtwood	Penn. Power & Lt	PA	229.62
RM Heskett	Mont.-Dakota Util	ND	216.57
Coal Creek	Coop. Power Ass.	ND	216.55
Milton Young	Minnekota Coop	ND	216.55
Stanton	Orlando Pwr & Light	FL	216.52
Big Stone	Otter Tail Power	SD	216.50
Antelope Valley	Basin Electric	ND	216.50
Phase 1: Plants			
Johnsonville	TVA	TN	253.76
Sunbury	PP&L	PA	210.95
Jim Bridger	Pacificorp	WY	210.52
Montrose	Kansas City P&L	MO	210.51
Prarie Creek	Iowa P&L	IA	209.30

248.4 and 165.6 lbs/MMBTU. Emissions for oil-fired plants are expected to be between 201.6 and 134.4 lbs/MMBTU and for gas-fired plants between 140.4 and 93.6 lbs/MMBTU. Table 2 shows the plants with highest carbon dioxide emissions in 1990.

As indicated by the results, most of the coal-fired plants that emitted the most carbon dioxide in 1990 were not from the group that was included in the 1990 Clean Air Act. Two of the plants (River Rouge and Johnsonville) are outside the NRDC's normal range for emissions, whereas two other plants, Rafuse and Coal and Holtwoood are close to the maximum limit. The remaining non-Phase 1 plants emit about the same amount of carbon dioxide. Except for Johnsonville, the worst polluters in Phase 1 emitted less carbon dioxide compared to the non Phase 1 coal-fired plants.

Other than the Kyoto Protocol, no regulations have been considered between 1990 and 1998 to regulate carbon dioxide emissions in the U.S. The 1990 Clean Air Act was implemented with 1995, 1996, and 2000 as key dates in the Act for reducing sulfur dioxide and nitrous oxide emissions. As far as carbon dioxide is concerned, only the Continuous Emission Monitoring System has to be installed to measure the carbon dioxide emissions.

The lowest and highest emitters are identified for comparative evaluation of 1990 and 1998. Table 3 contains the plants with the highest 1998 carbon dioxide

Table 3. 1998 Plants with Highest Emissions of CO_2.

Plant	Company	CO_2 Emissions lbs/MMBTU
Holtwood	PA Power & Light	226.97
Hunlock Power	UGI Utilities	221.53
ML Hubbard	Boswell Energy Ct	220.41
Pirkey	Central & Southwest	218.19
Antelope Valley	Basin Electric Pwr	217.74
Sheldon	Nebraska Public Power	217.74
Leland Chnl	Basin Electric Pwr	217.74
Milton Young	Minnkota Power	217.74
RM Heskett	Montana-Dakota P	217.74
Stanton	United Power Co.	217.74
Limestone	Houston L&P	217.74
San Miguel	San Miguel Elec. C	217.74
TNP One	Texas-N. Mex Pwr	217.74
Asbury	Empire Dist. Elec.	217.74
Coyote	Otter Tail Power	217.61
Lewis & Clark	Montana-Dakota	217.31
Sikeston	Sikeston Muni Util	217.18
Dolet Hills	Cent. La. Elec.	217
Coal Creek	Coop Power	216.21
Wabash River[a]	Cinergy	214.20
Rodemacher	Cent. La. Pwr	212.44
Sutherland	IES	212.02
River Rouge	Detroit Edison	211.18

[a] Phase 1 Plant.

emissions and Table 4 contains the plants with the lowest 1998 carbon dioxide emissions.

A comparison of the highest emitters of 1998 and 1990 (the 1990 highest polluters are contained in Table 2) indicates that the 1998 emitters are almost the same as in 1990. Only Rafuse and Coal, Big Stone and Naughton are no longer on the 1998 list. Rafuse and Coal was off-line in 1998. Although River Rouge reduced its emissions fairly drastically, it is still in the higher part of the range. As far as Phase 1 plants are concerned, only Wabash River is among the worst carbon dioxide emitters. Three of the plants with the lowest emissions of carbon dioxide, Columbia, Fox Lane, and Sixth St., appear to be the outliers. The remaining plants show that even the cleanest plants in terms of carbon dioxide emissions produce at a much higher level than 144 lbs/MMBTU.

The above results do not support our Hypothesis 2, that the highest polluters in 1998 would not be the same as in 1990. In fact, the 1998 highest polluters do not

Table 4. 1998 Plants with Lowest CO_2 Emissions.

Plant	Company	CO_2 Emissions lbs/MMBTU
Columbia	City of Columbia P	58.95
Fox Lane	Interstate Power	118.78
Sixth St	IES	118.34
Lovett	Orange & Rockland	189.20
Hudson	Pub Serv E&G	191.25
Noblesville	Cinergy	192.37
Marion	S. Ill Power	192.78
Bay Front	Northern States Pwr	197.97
Bridgeport Harbor	United Illumin.	200.28

differ much from the 1990 highest polluters. These results thus suggest that the worst pollution emitters have not yet started taking the emission requirement of the Kyoto Protocol seriously. Stricter regulations may be needed to persuade these companies to reduce their pollution emissions.

4.3. Carbon Dioxide Pollution Disclosures

Although the ranking is based on 1996 data, the 1998 10 Ks are used for disclosures. Since the Kyoto Protocol was not signed until 1997, the 1998 disclosures are considered most appropriate. Of the top 100 companies, 10 Ks for 66 of them were publicly available. Using the emissions ranking scheme developed by NRDC and PSE&G, Table 5 provides the ranking of these 66 companies for 1996. Both the lbs/MWh and the total carbon dioxide emissions in the table are estimates.

Disclosures in each category are given in Table 6. The companies are listed on the basis of amount of carbon dioxide emissions per megawatt hour.

The form 10 K of the 66 electric utility companies were content analyzed to assess disclosures made by them about carbon dioxide emissions. Although the ranking is based on the 1996 data, the 1998 10 K was used as the source for disclosures. Since the Kyoto Protocol was not agreed to until 1997, it did not make much sense to examine the 1996 disclosures. In Table 6, the disclosures are categorized based on the scheme previously described, and the companies are listed based on the amount of carbon dioxide emissions per megawatt hour.

In order to examine the association between emission levels and pollution disclosures, a disclosure score has been calculated. Disclosures made in each of

Table 5. Top 100 Generating Companies-1996 CO2 Emissions (Fossil Fuel).

Company	CO_2 Rank (in lbs/MWh)	Approx. CO_2 lbs/MWH	Millions Tons	Rank (in Total Tonnage)
Northern States Power	1	2600	21	21
Idaho Power	4	2500	7	75
Wisconsin Energy	6	2500	22	20
NIPSCO	7	2500	18	38
Pacificorp	8	2500	58	6
Cinergy	9	2500	67	5
WPS	11	2450	10	63
Oglethorpe Power	13	2450	8	67
Minnesota Power	15	2400	12	59
Northeast Utilities	16	2350	10	62
Western Resources	18	2350	21	22
Iowa-Ill Gas and Electric	19	2300	4	84
Tucson Electric Power	20	2300	16	49
WPL Holdings	22	2290	12	60
Unicom	23	2280	35	12
IPALCO	24	2280	18	39
Kansas City Power & Light	25	2270	17	44
KU Energy Corp.	26	2260	20	24
CIPSCO	28	2250	18	42
Consolidated Edison	31	2240	14	55
TECO	33	2230	20	28
New York State Elec. & Gas	34	2220	18	40
Dayton Power & Light	35	2220	19	34
Carolina Power & Light	37	2210	25	18
Union Electric	38	2200	31	16
PP&L	39	2200	23	19
Montana Power	42	2190	4	83
DQE	43	2180	14	54
Baltimore Gas & Elec	44	2180	20	29
Washington Water Power	45	2170	2	91
Niagara Mohawk	47	2165	8	68
G&E	48	2160	18	43
GPU	49	2150	20	27
Public Service Enterprise	50	2140	15	52
Ohio Edison	52	2140	30	17
Pinnacle West Capital	53	2130	15	51
Centerior Energy	55	2120	20	26
Detroit Edison (DTE Energy)	56	2110	45	13
American Electric Power	57	2100	138	1
Illinova	58	2090	19	33
United Illuminating Co.	60	2080	3	85
The Southern Company	62	2070	132	2

Table 5. (*Continued*)

Company	CO_2 Rank (in lbs/MWh)	Approx. CO_2 lbs/MWH	Millions Tons	Rank (in Total Tonnage)
Duke Power	64	2060	40	12
Dominion Resources	65	2050	32	15
CMS Energy	66	2040	19	37
Florida Progress Corp.	67	2040	20	23
Enron	68	2030	3	87
PECO	70	2020	14	56
Allegheny Power	71	2020	42	9
Potomac Electric Power	72	2020	19	36
SCANA	75	2010	17	46
OGE	76	2000	20	25
Nevada Power	78	1950	4	81
Texas Utilities	80	1900	68	4
Central and Southwest	81	1880	50	7
Houston Industries	82	1860	41	11
Delmarva Power and Light	83	1860	7	71
New England Electric	84	1860	16	47
Edison International	87	1750	19	32
Portland General	88	1700	3	88
Entergy	90	1650	41	10
FPL Group	91	1600	33	14
Long Island Lighting	92	1510	3	78
El Paso Electric	93	1500	2	92
Boston Edison	94	1300	2	90
Pacific Gas & Electric	95	1250	5	75

the five categories presented above are given one point. Thus, a firm disclosing information in each of the categories would have a score of five. This equal weighting scheme, although not reflecting the differential value that each disclosure may have (for example, mentioning something about global warming is not as valuable as informing the stakeholders of estimated cost for reducing carbon dioxide emissions) will highlight some differences in the extensiveness and types of disclosures.

The above model is run by using carbon dioxide emissions in CO2lbs/BTU for carbon dioxide in tons as well as in terms of lb/MMBTU. Table 7 contains the results of the model based on carbon dioxide emissions in tons (the results for the model using carbon dioxide emissions in lbs/BTU are not significant and not reported)

Table 6. Top 100 Generating Companies – Disclosure of Carbon Dioxide Problem.

Company	CO_2 Rank	Mention Disclosures	Disclosures Plan	Potential Costs Effect Not Predicted	Materiality
Northern States Power	1	Yes			
Idaho Power	4	No			
Wisconsin Energy	6	No			
NIPSCO	7	No			
Pacificorp	8	Yes		Yes	Significant
Cinergy	9	Yes	Yes-voluntary		
WPS	11	No			
Oglethorpe Power	13	Yes		Could increase costs	
Minnesota Power	15	No			
Northeast Utilities	16	No			
Western Resources	18	No			
Iowa-Ill Gas and Electric	19	No			
Tucson Electric Power	20	No			
WPL Holdings	22	No			
Unicom	23	Yes		Yes	Could be substantial
IPALCO	24	No			
Kansas City Power & Light	25	Yes		Yes	Could be substantial
KU Energy Corp	26	No			
CIPSCO	28	Yes		Higher costs	
Consolidated Edison	31	No			
TECO	33	No			
New York State Electric & Gas	34	No			
Dayton Power & Light	35	No			
Carolina Power & Light	37	No			
Union Electric	38	Yes		Yes	Could be substantial

PP&L	39	No			
Montana Power	42	No			
DQE	43	No			
Baltimore Gas & Electric	44	No			
Washington Water Power	45	No			
Niagara Mohawk	47	No			
LG&E	48	No			
GPU	49	Yes	Already met standard		
Public Service Enterprise	50	No			
Ohio Edison	52	No			
Pinnacle West Capital	53	No			
Centerior Energy	55	No			
Detroit Edison (DTE Energy)	56	No			
American Electric Power	57	Yes		Yes	Could be substantial
Illinova	58	Yes		Yes	Could be substantial
United Illuminating Co.	60	Yes			
The Southern Company	62	No			
Duke Power	64	Yes	Yes	Don’t know future impact	
Dominion Resources	65	Yes		Yes	Likely result in substantial costs
CMS Energy	66	Yes			
Florida Progress Corp.	67	No			
Enron	68	No			
PECO	70	No			
Allegheny Power	71	Yes	Does not know impact		
Potomac Electric Power	72	No			
SCANA	75	No			

Table 6. *(Continued)*

Company	CO_2 Rank	Mention Disclosures	Disclosures Plan	Potential Costs Effect Not Predicted	Materiality
OGE	76	Yes		Yes	Could be substantial
Nevada Power	78	No			
Texas Utilities	80	No			
Central and Southwest	81	Yes		Does not know impact	
Houston Industries	82	No			
Delmarva Power and Light	83	Yes		Cannot predict	
New England Electric	84	No			
Edison International	87	No			
Portland General	88	No			
Entergy	90	No			
FPL Group	91	No			
Long Island Lighting	92	Yes	Reduced CO_2 by 23% since 1990		
El Paso Electric	93	No			
Boston Edison	94	No			
Pacific Gas & Electric	95	No			

Table 7. Ordered Probit Model Results (Using Ordinary Least Squares) for: $DiscScore = \alpha + \beta_1\ CO_2tons + \beta_2 ROE + \beta_3 LTOTASSETS + \beta_4 BETA + \varepsilon$.

Model Explanatory Power			
Number of observations	48		
Iterations completed	14		
Chi-squared	9.40		
Significance level	0.05		
	Parameters		
Variable	Coefficient	Standard Error	Probability
Intercept	−0.75	3.39	0.22
CO_2tons	0.152	0.0074	0.04*
ROE	−3.36	5.54	0.61
LTOTASSETS	0.069	0.284	0.80
BETA	1.34	3.04	0.65

*Significant at the 5% level.

The results indicate that there is a significant positive association between disclosure of carbon dioxide emissions and actual carbon dioxide emissions in tons. Firms that emitted the most carbon dioxide provided the most extensive disclosures. These results support our Hypothesis H3 that there is a positive association between carbon dioxide emissions and disclosures.

Since these disclosures are voluntary, differential disclosures are expected to depend on the company which may be concerned about the future cleanup and its effects on the economic performance. Although the association between pollution disclosures and emissions is positive, an analysis of pollution disclosures by most companies indicate that very little information to stakeholders is being provided.

On an overall basis there has not been much disclosure about carbon dioxide emissions, and it appears that the electric utilities have not yet started considering this problem seriously. Twenty of the 66 companies mentioned something about the problem. Two of the companies, Cinnergy and Duke Power, mentioned that their future planning process would deal with the problem. None of the companies provided any quantitative data either concerning future costs or emissions. Eight of the companies estimated that they would have a significant or material impact. Two other companies mentioned that reduction in the carbon dioxide emissions would result in higher costs. Five of the companies did not know what type of impact the emission reduction would have on the economic performance. In terms of rankings, out of top 20 companies based on lbs/MWH, 7 disclosed something

about the problem and 5 of them mentioned something about costs. Based on the rankings using total carbon dioxide emissions, the top 20 companies provided a little bit more disclosure. Half of these companies mentioned something about the problem and 4 mentioned costs.

From the stakeholders' point of view, much has been left unsaid. It appears that some companies that have a problem in reducing carbon dioxide emissions chose to keep the problem internal and did not convey the information to the stakeholders. The impact of the problem also varies among the disclosing firms. The management of some companies thinks that reducing carbon dioxide emissions would have a substantial impact on the firm, while the managers of other companies, which may be in a worse situation in terms of emissions, have no clue as to the impact of emission reduction.

5. CONCLUSION AND CARBON DIOXIDE EMISSIONS TRADING SCHEME

The global community has agreed that reducing carbon dioxide emissions in the future is important for planetary survival. Electric utilities, being the largest industrial producer of carbon dioxide emissions in the developed world, are impacted by this agreement. Meeting the goals of the Kyoto Protocol would necessitate a drastic change in electricity generation. Fuel switching away from coal, more efficient plants and better technology would be required of this industry.

Using 1998 as a vantage point, a 30% reduction of carbon dioxide emissions would be required of electric utilities to meet the goal of a 5% reduction in 1990's emissions level. Since electricity production is expected to increase annually, by 2012 the electric power industry will be required to reduce emissions even more than 30%. As the study indicates, Kyoto Protocol will have a differential impact on companies in the electric power industry. Those that rely on coal for a significant amount of their production will be the companies most affected.

Reduction of carbon dioxide to an agreed upon level by the U.S. companies (although the treaty has not yet been ratified by the U.S. Senate) will require that the electric utilities either greatly reduce their use of coal for electricity generation, shift to natural gas or non-fossil fuels, or develop more efficient electricity generation methods. Because a major shift in fuel type will require a long time, the use of a carbon dioxide emission trading scheme might be considered to reduce overall emissions on an ad hoc basis.

Extrapolating from the method that was used in the 1990 Clean Air Act to deal with the sulfur dioxide emissions, a carbon dioxide emissions' trading scheme may also be used to achieve the goals of the Kyoto Protocol (e.g. Striano, 1998).

In that scheme, electric utilities shall be given allowances for a given amount of carbon dioxide emissions. In the case of sulfur dioxide, each allowance was for a ton of sulfur dioxide emissions. Applying the same scheme to carbon dioxide emissions, each company would have to select the mix of generating facilities that would produce electricity and meet the carbon dioxide caps.

A company-wide solution would allow the company to have some plants that emit carbon dioxide well above the average needed to meet the cap so long as they are offset by other cleaner burning plants. However, given that the average emissions of all fossil fuel plants in 1998 was 192 lbs/MMBTU and that it should have been 144 lbs/MMBTU according to the Kyoto Protocol for the same amount of electricity, the companies have a long way to go to achieve the desired goal.

An advantage of the carbon dioxide trading scheme is that unlike the case of sulfur dioxide, the localized emission effects do not matter. Since reducing the global impact is what matters, trading between different parts of the country or the globe that results in a net reduction of emissions can have the same benefit as a plant reducing emission by the same amount. Regardless of the method used, unless the global community starts enforcing the Kyoto Protocol and individual electric utility companies and plants begin to address the problem of global warming, the situation will continue to get worse.

Disclosures made by firms concerning global warming are limited or almost non-existent. The stakeholders cannot rely on these disclosures to make any intelligent decisions. It appears that the companies in a seemingly worse situation do not disclose any more information. Making the stakeholders aware that the firm is aware of the problem of global warming and is considering alternatives to deal with the problem, would allay some of the stakeholders' fears. Thus, detailed disclosure of pollution information would seem to be in the best interests of all concerned.

The problem of global warming is not going to disappear just because the current U.S. administration chooses to ignore it. Research is needed that focuses on what individual plants and electric utility companies need to do to reduce their carbon dioxide emissions and the implications of delaying those actions to the future. Research is needed to determine the environmental information needs of stakeholders so they can make the best decisions for themselves and society.

NOTES

1. Researchers have also hypothesized that firms make voluntary environmental disclosures for a number of reasons including those of political economy (Guthrie & Parker, 1990) and legitmation (Buhr, 1998; Patten, 1991; Savage et al., 2000). The political economy

perspective says that accounting reports are the social, political and economic reports of management. Therefore, they are tools promoting the ideological interests of management (Guthrie & Parker, 1990). Voluntary environmental disclosures, therefore will be made to promote management's beliefs about the firm's role with the physical environment and in the process further the self-interest of the corporation.

Legitimation is the attempt by the corporation to close the gap between what society expects from coporate (environmental) behavior and what it perceives the behavior to be (Savage et al., 2000). By voluntary disclosing pollution information the company is attempting to close the gap and improve their image with society.

Since both political economy and legitimation are based solely on corporate self-interest and not on making the firm accountable for its actions or on providing information that is useful for stakeholders decisions we feel they are not the appropriate models to use to analyze these disclosures. There is some empirical support in the accounting and management literature that firms make voluntary environmental disclosures for reasons of political economy (Guthrie & Parker, 1990) or for legitimation (Patten, 1992, 1995; Savage et al., 2000). However, we are interested in evaluating fair disclosures and not in improving the firm's public relations.

2. In 1998, the coal-fire plants emitted 2026 million tons of carbon dioxide into the atmosphere with an average of 204 lbs/MMBTU. The 108 Phase 1 plants emitted 622 million tons with an average of 204 lbs/MMBTU and 307 other coal-fired plants emitted 1405 million tons of carbon dioxide with a 204 lbs/MMBTU average. In order to reduce the 1998 emissions to 95% of 1990s, the electric utilities would require a reduction from 2026 million tons to 1426 million tons – a reduction of 30%. To produce the same amount of electricity and meet the benchmark emissions level, they would require an average of 144 lbs/MMBTU.

As a means of comparison, all of the U.S. fossil fuel burning plants (coal, oil and natural gas) in 1998 produced 2386 million tons of carbon dioxide with an average of 192.3 lbs/MMBTU. Including all the oil and natural gas burning plants into the total, the lbs/MMBTU is reduced by just 6% (from 205 to 192.3).

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ENVIRONMENTAL REPORTING AND THE RESURRECTION OF SOCIAL ACCOUNTING

Martin Freedman and A. J. Stagliano

ABSTRACT

This research investigates whether firms that voluntarily publish environmental reports to supplement their annual financial statements disclose significantly more sustainability data than others. A matched-pair sample of companies, drawn from the EPA's list of the 500 largest (volumetric basis) U.S. polluters, that published such environmental reports during 2001 or 2002 is used to assess the type and level of non-environmental social accounting disclosures in five different areas: employee safety/health, workforce and supplier diversity, product safety, community involvement, and energy usage. Fifty-two environmental report producers were matched with non-reporters based on total asset size and SIC. Content analysis was used to assess the substance of sample firm reporting. The results show highly significant differences in social accounting reporting, with the environmental report publishers disclosing more sustainability data in a wider range than their matched counterparts.

The movement to incorporate social accountability in the actions, and social accounting in the disclosures, of corporations has, for the most part, been swept over by environmentalism. Although academicians (e.g. Gray et al., 1995a) have issued a clarion call for social accounting, accountability, and transparency, if

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the topic does not concern the environment, it tends to fall on deaf ears. While the environmental movement has not led to revolutionary changes in business activities, some firms – typically in response to environmental protection laws – have altered production processes to reduce pollution emissions. Many companies have voluntarily disclosed much of the good news (and a bit of the bad) concerning their interaction with the environment.

In the recent shift from a wholly environmental focus to one of sustainable development, social accounting will be more prominent. Economic activity that leaves people, the community, or even the producer in a worse state – yet is impact-neutral with respect to the environment – does not contribute toward the goal of global sustainability. Firms that embrace the idea of sustainability must broaden their focus to encompass more than reduction of environmental degradation and become cognizant of their impact on all stakeholders.

Many of the firms that have recognized the need to appear more environmental aware, or that have claimed to be interested in sustainability, have voluntarily provided enhanced disclosure of environmental information in both special reports and annual filings to shareholders or regulatory agencies. Whether these firms actually are doing a good job of reducing environmental damage is another matter, not easily testable from extant publicly accessible information.

Firms that issue environmental reports often provide these disclosures to demonstrate their contribution to sustainable development. Since the impact on constituents other than the physical environment is a matter of concern for sustainability, it would be expected that these firms would be in the forefront in social accountability reporting. By reviewing such environmental/sustainability reports it should be possible to determine whether there has been a broadening of environmental reporting to include other social accounting disclosures.

In this study, we compare companies that published environmental reports during 2001 and 2002 to other firms – matched by size and industry – not making such reports publicly available. The expectation, our working hypothesis, is that there will be a significant difference in the level of social disclosure (other than environmental disclosure) between the two groups of firms. However, we believe that even though the environmental reporting firms will provide more social accounting data, it will not really be about sustainability. Rather it will be simply an alternative form of public relations, or as one New York Times' writer (Cortese, 2002) recently characterized it, "glossy propaganda."

BACKGROUND AND LITERATURE REVIEW

Social accounting, never more than a peripheral area of interest or research in the discipline, had a following in the 1970s (see Epstein et al., 1977;

Estes, 1976; Mobley, 1970). However, this interest in social accounting proved to be fleeting. The area of social accounting that seemed to flourish while the rest was withering is environmental accounting. Employee safety and health, discrimination and diversity, product safety, and community involvement did not seem to resonate with accounting academics or practitioners. However, nearly everyone seemed to care about the environment.

As the environmental movement grew in intensity in the U.S. (including the passage of major pollution control laws related to air, water, and toxic wastes) and around the world, firms responded by providing the public with good news about their environmental activities. Some disclosures were in response to government (Securities and Exchange Commission, Environmental Protection Agency, Occupational Health and Safety Administration) and quasi-government (AICPA) regulatory bodies' demand or mandate for certain environmental disclosures (Freedman & Stagliano, 1998). Much of this disclosure, though, was voluntary.

There also were a number of other organizations pressing for more environmental disclosures, including CERES, the Global Reporting Initiative, and SustainAbility (part of the United Nation's Environment Program). Furthermore, world summits in Rio de Janeiro and Kyoto to deal with global warming and economic development provided the impetus for many multinational corporations to reach a decision on confronting environmental issues.

In the accounting literature, voluntary provision of environmental data has been ascribed to a number of theories and conjectures. According to Gray et al. (1995b), socio-political theories have provided the strongest basis for explaining social disclosures (of which environmental disclosure is a subset). The major socio-political constructs are legitimacy theory (see Patten, 1991, 1992; Savage et al., 2000; Walden & Schwartz, 1997), political economy theory (see Guthrie & Parker, 1990), and stakeholder theory (see Clarkson, 1995; Ullmann, 1985).

Both legitimacy theory and stakeholder theory are a function of perceived pressures on the firm. Legitimacy theorists believe that firms provide environmental information to show that they have been good stewards of the earth. According to Gray et al. (1995b), firms do this as a means of legitimization. This supposition contrasts with a political economy approach to disclosure in which the firm uses the annual report as a vehicle to expound on its own chosen ideology (Guthrie & Parker, 1990). In either case, there is little justification for disclosing information that is not in the best interests of the firm (here, there is no differentiation between managers and owners). Finally, stakeholder theorists posit that the firm should provide information so that all those at interest can correctly assess management's performance. According to the proponents of this concept, both good news and bad news ought to be disclosed.

Environmental disclosures also have been connected with economic attributes (such as firm size, industry group, and profitability) and to environmental

performance (see Ullmann, 1985 for an early summary of these studies and Patten, 2002 for a more recent one). There also are a number of environmental disclosure studies that apply capital markets theory (e.g. Anderson & Frankle, 1980; Ingram, 1978) in explaining these disclosures. Finally, there is a recent study by Buhr and Freedman (2001) attributing these disclosures to cultural aspects of business.

Although most of the increase in environmental disclosure has occurred in annual reports to shareholders, a number of companies have issued separate environmental statements. According to corporateregister.com, an on-line website that tracks public-company social reporting, 339 separate reports were issued by U.S. companies in 1999. Most of these reports are not subject to independent audit or attestation (Cortese, 2002).

If, in fact, socio-political theories provide the strongest basis to explain environmental disclosure, it would appear that environmental reporting is demand driven. Recently, because of the problems of global warming and focus on sustainability, an agreement was reached at the Kyoto summit (subsequently modified at a Morocco summit) to meet certain emissions standards and to aid poorer nations in development (Revkin, 2001). This push towards sustainability has implications for social disclosures. As was stated earlier, sustainability cannot be achieved unless the environment, the community, the producer, and the means of production are, at least, in no worse a state than they were before production occurred. If environmental disclosures are demand driven, then pursuit of global sustainability should encourage disclosures about the firm's relationship with its constituents. Those firms providing information about their progress toward sustainability are expected to make social disclosures.

There is some evidence that even demand-driven environmental disclosures are not meaningful enough to allow a reasonable assessment of environmental performance. For example in the Buhr and Freedman (2001) study, neither the more extensive Canadian company disclosures nor the U.S. company disclosures provided enough information so that an informed reader could reach a reasonable opinion as to the environmental riskiness of the firm. Adding social disclosures to the mix may not contribute a great deal to ascertaining whether the firm is on the road to achieving sustainable development.

Despite the limitations of environmental and social disclosures, it is useful to determine whether firms that make extensive environmental disclosures also are making other social disclosures. If the movement to achieve sustainable development is going to progress, those firms that seem to react to environmental demands by making disclosures (even if it is just "propaganda") need also to include social disclosure as part of their reporting.

HYPOTHESIS

We define social disclosures as those made about human resources (safety and health and diversity), product safety, community relations, and energy use. In this study we collectively call these areas of interest "sustainability disclosures." Given that some U.S. firms make an effort to provide separate environmental reports in print and/or on the web, the question we address is whether such firms also provide significantly more sustainability disclosures than those firms that do not issue separate environmental reports.

We assess this relationship by testing the following null hypothesis:

> **H_0.** There is no difference in the (non-environmental) sustainability disclosures of firms that issued separate environmental reports during 2001 or 2002 compared to firms that did not issue such reports.

Since we will utilize a sample matched by asset size and industry to test this hypothesis, there is every expectation that the matched firms faced similar disclosure demands. If the stakeholder theory for disclosure production prevails, there should be no significant difference between the samples. However, from both the legitimacy theory and political economy viewpoint, firms facing the same stakeholder disclosure demands may provide a different response.

Legitimacy theory requires that the firm justify its actions in a way that appeases constituents without necessarily altering its behavior. Therefore, providing more sustainability disclosures fits that modus operandi.

Since political economy theorists believe that the firm propagates its ideology through external reporting, it would be consistent for a firm making separate environmental disclosures to provide additional sustainability disclosures.

METHODOLOGY

Sample Selection

The study sample is drawn from the 500 companies identified in 1987 by the U.S. Environmental Protection Agency as the volumetrically largest toxics-releasing entities in the United States. This sample was necessarily reduced to those independently in existence during 2001 or 2002 for which financial data were available. The condensed sample consists of 175 firms.

From this group, a determination was made of those companies that had issued environmental reports either published in hard copy or made available on the companies' websites. These firms were matched with others from the sample that

did not make such separate environmental disclosures. Matching was based on standard industrial code (SIC) and total asset size. Wherever possible, the SIC match was based on the full four digit code. At minimum, though, all comparison pairs had at least a leading two-digit match.

The final sample of 52 matched pairs of firms is shown in Table 1.

Table 1. Matched Sample.

Environmental Reporters	SIC	Size	Matching Company	SIC	Size
Alcoa	3334	31	Maxxam	3312	4
Armstrong World	3089	4	Owens Corning	3084	7
AT&T	4822	165	MCI WorldCom	4822	103
Baxter	3845	10	Eli Lilly	3845	16
Bethlehem Steel[a]	3312	4	LTV	3312	5
Boeing	3761	10	Lockheed Martin	3761	28
Boise Cascade	2611	5	Potlatch	2611	3
Bowater	2621	6	MeadWestvaco	2631	7
BP/Amoco	2911	25	ExxonMobil	2911	143
Chevron/Texaco	1311	77	Valero Energy	1311	14
Cooper Industries	3629	5	Hexcel	3629	1
Crown Cork and Seal	3411	11	Ball Corp.	3411	3
Deere	3531	22	Caterpillar	3531	30
R R Donnelley	2754	3	Banta	2754	1
Dow	2821	38	Sherwin-Williams	2851	4
duPont	2873	39	ConAgra	2879	16
Ford[a]	3711	276	General Dynamics	3754	11
General Electric	3820	495	Emerson Electric	3823	15
General Motors[a]	3711	323	Dana	3714	11
Georgia Gulf	2819	1	Hercules	2819	5
Georgia Pacific	2621	26	Kimberly Clark	2621	14
GlaxoSmithkline Beckman	2834	22	Wyeth	2834	23
Goodyear	3011	13	Cooper Tire	3011	3
W R Grace	2819	3	Lubrizol	2869	2
Hewlett Packard	3571	32	Gateway Computer	3571	4
Honeywell	3724	25	ArvinMeritor	3714	4
IBM	3571	88	Lexmark	3577	2
International Paper	2611	42	Rayonier	2611	2
ITT[a]	3812	4	Gencorp	3812	2
Johnson & Johnson	2830	31	Merck	2834	44
Kerr McGee	2621	8	Devon Energy	1311	5
Louisiana Pacific	2879	3	Consolidated Paper	2621	3
Maytag	3581	3	Black and Decker	3546	4
Monsanto	2879	3	Great Lakes Chemical	2899	2
Motorola	3669	33	Qualcomm	3669	6
Occidental Petroleum	1311	19	Phillips Petroleum	2911	20

Table 1. (*Continued*)

Environmental Reporters	SIC	Size	Matching Company	SIC	Size
Olin	2899	2	Millennium Chemicals	2899	3
Parker Hannifin	3492	5	Stanley Works	3423	2
Phelps Dodge	3331	8	Cabot Industries	3331	2
Philip Morris	2111	83	R J Reynolds Tobacco	2111	15
PPG	3211	9	American Standard	3261	5
Procter and Gamble	2087	34	Anheuser Busch	2082	14
Raytheon	3679	26	McDermott Intl.	3621	2
Rockwell International	3812	4	Alliant Techsystems	3814	2
Rohm and Haas	2812	11	Valhi	2816	2
Sun Oil[a]	2911	6	Citgo	2911	6
Temple Inland	2435	18	Masco	2434	9
Texas Instruments	3571	16	US Filter	3589	4
United Technologies	3724	25	Textron	3721	16
Unocal	1311	11	Burlington Resources	1311	10
Vulcan Materials	2812	5	FMC	2819	3
Weyerhaeuser	2621	18	Glatfelter	2621	1

Note: Asset size in billions of dollars.
[a] Ceres Signatory.

Data Collection

Data provided on the website and in annual reports to shareholders for the year of the environmental report were examined for all 104 sample companies. The annual report was used because it is the major publicly available source of data about the corporation. Information about the aspects of sustainability examined in this study are all voluntary disclosures in the annual report, the hard copy of the environmental/social report, or on the website. Disclosures that are mandated (e.g. pension plans, stock options, etc.) are not included in this analysis. The focus is on voluntary production of employee safety and health, workforce/supplier diversity, product safety, community involvement (except environmental), and energy use.

Firms that have environmental reports "published" on-line or in hard copy are compared to firms that do not have these voluntarily produced reports. The annual reports were accessed from EDGAR (the SEC's website) when they were not available from the firm's website. Some reports were not available in either place; in this circumstance printed copies were obtained from the company itself.

Some of the reports available on-line are truncated versions of the printed copy. Since it is possible that information pertinent to the study was eliminated in these cases, hard copies were obtained from the company and the printed copy was compared to the electronic version. Although some pictures and graphics involving

social disclosures were eliminated in the electronic version of a few reports, no substantive information was found to have been abridged.

Content Analysis

Content analysis is employed to evaluate sustainability data based on categories of disclosure. The focus is on the substance of what is said as opposed to simply counting lines or words in reports. This method has been used in numerous studies reported in the social accounting literature (e.g. Freedman & Wasley, 1990; Wiseman, 1982). In this study, disclosures are classified based on the categories of human relations, product safety, community involvement, and energy. Further classification is based on whether disclosures are monetary, quantitative, or simply narrative. Only substantive narrative disclosures were deemed relevant for this study.

Based on the information provided by the most extensive disclosers, and after an assessment as to what constitutes useful disclosure, the following scheme was utilized to categorize the reporting:

Safety and Health – Data on lost workdays, severity of accidents, safety incidents, fatalities, compliance penalties, noise and other workplace pollution, and on being designated an OSHA VPP plant.
Diversity – Statistics on, or a program for, increasing employee and/or supplier diversity.
Product Safety – Active programs to make products safer or healthier.
Community Involvement – Amount of monetary or in-kind contributions to aid the community, as well as information on the types of projects funded. (Volunteer work by employees was not considered unless the company provided paid release time.)
Energy Efficiency – Activities by the firm that promote energy efficiency and quantitative measures of energy saved.

RESULTS AND ANALYSIS

The sample of 52 firms that issued environmental reports is examined against a matched sample of firms. Table 2 provides the disclosures of each company by category.

From a perusal of these on-line and hard-copy environmental reports, sustainability reports, other web-based information and their annual reports,

Table 2. Disclosure by Category.

Company	Safety	Diversity	Product	Community Involvement	Energy	Total
Alcoa	4	1		2	2	9
Maxxam				2		2
Armstrong World						0
Owens Corning			1	2		3
AT&T	1	1		2	2	6
MCI WorldCom				1		1
Baxter	2	1		2	1	6
Eli Lilly		1				1
Bethlehem Steel	3				1	4
LTV						0
Boeing	1			2		3
Lockheed Martin				1		1
Boise Cascade	1				1	2
Potlatch					1	1
Bowater	1					1
Mead Westvaco						0
BP/Amoco	3	1	1			5
ExxonMobil	1					1
Chevron/Texaco		1		2		3
Valero Energy				1		1
Cooper Industries	1		1	2		4
Hexcel						0
Crown Cork and Seal						0
Ball Corp.						0
Deere	4	2		2		6
Caterpillar				2		4
R R Donnelly	2	2				4
Banta		1				1
Dow	1			1	1	3
Sherwin-Williams						0
duPont	2	1	1	2	2	7
Olin						1
Ford	3	2	1	2	2	10
General Dynamics						0
General Electric	2			2		4
Emerson Electric						0
General Motors	1	1	1	2		5
Dana						0
Georgia Gulf	1		1			2
Hercules						0
Georgia Pacific	2			2		4
Kimberly Clark			2	2		4

Table 2. (*Continued*)

Company	Safety	Diversity	Product	Community Involvement	Energy	Total
GlaxoSmithkline Beckman	4			2	2	8
Wyeth				1		1
Goodyear	3		1		1	5
Cooper Tire			1	2		3
W R Grace	3					3
Lubrizol		1	1			2
Hewlett Packard	3			2	2	7
Gateway Computer						0
Honeywell				2		2
ArvinMeritor				2		2
IBM	3	1		2	1	7
Lexmark				1		1
International Paper	3			2	2	7
Rayonier						0
ITT	3			2	2	7
Gencorp						0
Johnson & Johnson	3	2		2	2	9
Merck		1		2		3
Kerr McGee	1	1		1		3
Devon Energy				1		1
Louisiana Pacific				1		1
Consoildated Paper				1		1
Maytag		1		2	1	4
Black and Decker			1			1
Monsanto	4			1		5
Great Lakes Chemical						0
Motorola	3	1	1	2	2	9
Qualcomm		1		1		2
Occidental Petroleum	2	1		2		5
Phillips Petroleum	2			2		4
Olin	3			2		5
Millennium Chemicals	1					1
Parker Hannifin	3					3
Stanley Works				2		2
Phelps Dodge				2	2	4
Cabot Industries						0
Philip Morris		2		2	2	6
R J Reynolds Tobacco	2			2		4
PPG	2			2	1	5
American Standard						0
Procter and Gamble	3	2	1	2		8
Anheuser Busch		2		2		4

Table 2. (*Continued*)

Company	Safety	Diversity	Product	Community Involvement	Energy	Total
Raytheon	2	1		2		5
McDermott International						0
Rockwell International	1			2	1	4
Alliant Techsystems				2		2
Rohm and Haas	3	1	1	2	1	8
Valhi						0
Sun Oil	3					3
Citgo	2					2
Temple Inland	4			1		5
Masco				1		1
Texas Instruments	2	1		2		5
US Filter						0
United Technologies	3	1		2	1	7
Textron		1		1		2
Unocal	2	1		2		5
Burlington Resources				2		2
Vulcan Materials	4	1	1	2	1	9
FMC						0
Weyerhaeuser	4			2	1	7
Glalfelter						0

certain patterns have emerged. Those firms that have environmental reports clearly disclose more about these other categories of data related to sustainability. This phenomenon appears to hold both within and across industries. However, only four companies (Ford, Motorola, Rohm and Haas, and Vulcan Materials) disclosed data in every category. Each of these companies was in the environmental reporting portion of the sample. Ford is a signatory to the CERES principles; as such, it had agreed to provide a certain level of environmental disclosure. None of the other CERES signatories included in the sample provided this level of disclosure.

Many of the firms that did not have an environmental report provided essentially no disclosure in any of the categories. Actually, 20 of the non-environmental reporting group, compared to two of the environmental reporting companies, provided no disclosure. For both sets of firms, if the information was not in the environmental report or at the website (as opposed to the annual report), it did not exist. Few of the annual reports from either set of companies had data about charitable giving, relations with the community, product safety, occupational safety and health, or diversity.

In terms of occupational safety and health, 45 of the environmental reporting firms and only four of the non-reporting firms provided data. It is not startling that the environmental reporting firms provided the safety data, since most of their reports are designated as environmental and health and safety (EHS) reports. However, the lack of reporting by other companies, given the nature of the industries involved, is unexpected. For those firms that did include safety and health data in their report, most had information about current accident rates, job-related fatalities, and time lost due to illness. Boise Cascade provided information about competitor firms and the industry to give readers a basis for comparison.

Most of the sample companies operate foundations that support community activities. Some of them provide a good deal of information on their website about these activities. For those firms that provide a sustainability report, community involvement is included as one of their categories of disclosure. However, Bethlehem Steel's environmental report, which it provides as a signatory to the CERES principles, has information about the EHS areas only. All of the community activities included in its report contained an environment focus.

From a statistical standpoint, and by any reasonable measure, the disclosures identified for the two groups of firms are significantly different. For the group of EHS report producers, the mean "score" from the content analysis is 4.98; the matched sample group total is only 1.19. A two-tailed parametric t-test of group mean difference yields a t-statistic of 10.047; this is significant below 0.000%. Non-parametric mean-difference tests (Mann-Whitney and two-sample Kolmogorov-Smirnov) produce similar results. A one-way ANOVA (between-groups analysis) develops an F-statistic of 12.662, again significant below 0.000%. Parametric and non-parametric (Kendall & Spearman) correlations – driven by total disclosure score – all showed significant association with the type of sample element (i.e. environmental report publisher or not). Finally, the content analysis disclosure total score is a significant discriminating attribute in correct sample placement based on group identity (again, EHS report publisher or not).

Based on the data, analysis, and statistical testing it appears that the null hypothesis positing no difference in sustainability disclosures between those firms that produce environmental reports and those that do not is rejected. Environmental reporting firms produce more data about the other categories of sustainability. However, even the environmental reporting firms rarely disclose data about all the areas of sustainability. Furthermore, there is no consistency to the disclosures that were found to exist.

Since the sample is matched based on asset size and industry, it is expected that the firms in each subset face the same stakeholder demands regarding production of sustainability data. Environmental reporting firms made a decision to provide environmental data in a format that facilitates public acquisition and use; they also

are more inclined to provide sustainability data. If the socio-political theorist's assumptions are accepted, this is done to ameliorate public pressure. Because there is a difference in the two samples it would appear that either legitimacy theory or political economy theory is a better explanation than stakeholder theory for the existence of these disclosures.

CONCLUSION

Firms that publish separate environmental reports provide more voluntary disclosures about occupational safety and health, diversity, product safety, community involvement, and energy efficiency than do other companies. Those not producing environmental reports, if they disclose anything, focus on community involvement in their annual report. Disclosures concerning occupational safety and health are limited to those firms producing environmental reports. Since occupational safety and health has the potential to include bad news, it is not unexpected that it is ignored by those firms without environmental reports.

Social accounting disclosures and sustainability reports are being made by a segment of the corporate community. However, these are wholly voluntary undertakings. Maybe the best that can be hoped for in a world of voluntary reporting is that progress be made toward more and better sustainability disclosures. An increase in environmental and other sustainability disclosures in response to public pressure may lead to improved disclosures. However, if this activity is only an attempt at legitimization of the firm's outcomes or espousal of its ideology, then nothing short of mandating appropriate disclosures will suffice to enlighten stakeholders about the impact of the production process on global sustainability.

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THE TENSION BETWEEN ACCOUNTORS AND ACCOUNTEES: EVIDENCE FROM THE REFORMED NEW ZEALAND ELECTRICITY INDUSTRY

Jill Hooks, David Coy and Howard Davey

ABSTRACT

At any time, there will be differing views on what needs to be done to be properly accountable, because accountees are likely to be in favour of more accountability, and accountors, of less (Perks, 1993). This leads to a tension between these two groups (Ijiri, 1983).

Hooks et al. (2001) investigated the accountability and annual reporting of the recently reformed New Zealand electricity retail and distribution industry by developing a disclosure index which measured the quality of annual reports from an accountability perspective. The industry was reformed during the late 1980s and 1990s through a programme of corporatisation and privatisation with the objectives of improving efficiency, service and lowering prices to the consumer (Electricity Act 1992; Electricity Industry Reform Act, 1998; State-owned Enterprises Act, 1986).

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Accountability is particularly important to ensure transparency in the New Zealand electricity industry which is controlled by a "light-handed" regulatory regime dependent on disclosure of information rather than price controls.

In their assessment of the 1999 annual reports of the 33 companies comprising the electricity retail and distribution industry, Hooks et al. (2001) found that key areas of inadequate disclosure relate to performance measures and segmental information. They also experienced difficulty in obtaining copies of annual reports from some electricity companies which are organised as community trusts.

These issues are investigated in this paper via interviews with stakeholders and report preparers. Commercial sensitivity and the cost of preparing information are prime reasons for the information gaps and the reluctance of trusts to make their annual reports more publicly accessible.

INTRODUCTION AND BACKGROUND

The paper is set within the reforms of the retail and distribution sectors of the New Zealand electricity industry which commenced in 1987. The objective of the reforms was to make the industry more efficient by introducing market disciplines through competition. The New Zealand electricity industry has two components: generation and transmission on a national basis, and distribution and supply to end consumers. This research is concerned with companies operating in the second component – distribution – which involves the delivery of electricity from grid supply points to consumers, and supply (or retail) which involves the wholesale purchase of electricity and its retailing to consumers.

Prior to the reforms, the distribution and retailing of electricity was the responsibility of electricity supply authorities (ESAs). These entities were operated by local authorities managed by city/borough councils or by board members appointed through local body elections. The Energy Companies Act 1992 moved the retail and distribution sector of the industry from a local body framework to a corporate structure. Interim directors appointed by Government were replaced by shareholder appointees. Control of resources was transferred from the public to the private sector. A change in objective from delivering an acceptable monopoly service at reasonable cost, to enhancement of shareholder wealth, increased the need for public accountability.

The New Zealand electricity industry is monitored by a light-handed regulatory regime the cornerstone of which are the Electricity (Information Disclosure) Regulations 1994/1999. The Ministry of Economic Development (MED) publishes the data supplied to it by electricity distribution companies but the information has been criticised for being of poor quality, lacking in timeliness (Ministry of

Commerce Newsletter, June, 1997) and "incomprehensible for most consumers" (Macfie, 1998, p. 4). Therefore, the corporate annual report has a critical part to play in communicating information to stakeholders and discharging the accountability requirements of electricity retail and distribution companies.

An empirically-derived disclosure index was developed for the purpose of assessing both the extent and the quality of information disclosed in the annual reports of the New Zealand electricity retail and distribution companies from an accountability perspective. The disclosure index was developed with the assistance of a panel of 15 stakeholders representing the following groups: preparers, auditors, lenders, regulator, academics, employees, consumers, financial media, industry consultants, consumers institute representatives, directors, energy trusts, financial analysts, major electricity users, and environmentalists. The index consists of 67 information items divided into 8 categories (see Appendix A) and includes best-practice criteria for each information item (see Appendix B). Annual report disclosures were scored independently by one of the researchers and an accountant using the best practice criteria as a benchmark. An arbitration process provided a consensus on final scores to be allocated. A summary of the scores allocated for each information category of the annual reports was sent to company Chief Financial Officers (CFOs) for validation.[1] The results from this analysis provide the foundation for this paper which adds a layer of qualitative research to the previously reported quantitative data.

Disclosure indices have been used extensively as a research tool primarily to assess whether specific information items have been disclosed in selected corporate annual reports. The aim has been to identify the motivation for the disclosure of voluntary items of information by testing the relationship between levels of voluntary disclosure and firm characteristics such as size, debt/equity ratios, and listing status. The focus has mainly been the disclosure of information for decision making purposes and the quality (degree of detail) of those disclosures has usually not been assessed. Rather, items on a pre-prepared list have been checked for their presence (a score of 1) or absence (a score of 0). The decision making perspective focuses on provision of information to meet investor needs. This electricity industry research is concerned with the provision of information for accountability purposes and therefore recognises the responsibility of corporate management to give an account to a broad group of stakeholders. The purpose is to highlight concerns arising from the evaluation of the annual reports and to consider the responses of relevant parties thereby contributing an empirical perspective to the literature concerned with the provision of information for accountability purposes. Sinclair (1995) notes that "Accountability will be enhanced by recognising the multiple ways in which accountability is experienced . . ." (p. 219). This research seeks to portray how two groups, preparers (accountors) and stakeholders (accountees),

perceive the notion of accountability. Ijiri (1983) emphasises the tension between these two groups. The intention of this research is to improve understanding of accountability by finding out how accountability is defined and constructed by these two groups. Thus corporate disclosure is viewed from both a management and a user group perspective.

The following section of the paper defines the accountability framework within which the research is set. The next section reports the interviews with stakeholders and with CFOs and links these to the concept of accountability. Finally some conclusions are drawn.

ACCOUNTABILITY

This paper is set within a framework of accountability. Jackson (1982) considered that accountability "involves explaining or justifying what has been done, what is being done and what has been planned . . . Thus, one party is accountable to another in the sense that one of the parties has a right to call upon the other to give an account of his activities" (p. 220). A number of authors (Benston, 1982; Demeritte, 1995; Gray & Jenkins, 1993; Guthrie, 1993; Sherman, 1988; Stewart, 1984; Tricker, 1983; Van Peursem, 1990) support this concept of accountability. If one party has a right to an account, the other party conversely has a duty to give that account. Within the context of this research such accountability focuses upon the relationship between the corporation (the accountor) and the users of its annual report (the accountees).

This accountability relationship is wider than that of the stewardship relationship between managers and shareholders[2] and is particularly important in the New Zealand electricity industry where 75% of electricity distribution companies are owned by community trusts.

The capital beneficiaries under these trusts are councils, electors, or electricity consumers in the area that was served by the trust when it was set up. These beneficiaries are important stakeholders, particularly as they are likely to have dual roles, as customers and as owners. How power companies account to these stakeholders is very important. This research therefore focuses on public accountability[3] which encompasses accountability to interested community groups and individuals. It acknowledges accountability to the three categories of stakeholders as identified by Rubenstein (1986):

- Input stakeholders – owners, employees, suppliers and creditors;
- Output stakeholders – consumers, distributors and users of the company's product; and

- Environment stakeholders – the community, local and central government, competitors and other interested parties.

It is contended that accountability to output and environment stakeholders, particularly consumers, users, and the local community, is proportionately more important if the product produced is essential to life, and there is no alternative supply. This applies particularly to the lines (network) segment of the electricity distribution industry. A continuous supply of electricity is critical to the survival of industry, communities, and society as we know it. There is currently only one network in each community to deliver this commodity. Electricity companies have a significant impact on society and are therefore required to account to those who are affected by their performance.

Provision of information about company activities is one way in which this accountability can be discharged. Although there are a number of ways by which this information can be provided (media conferences, websites) this research focuses on the annual report as a vehicle for discharging accountability, an approach supported by Marston and Shrives (1991), Lamond (1995), Botosan (1997) and Coy and Pratt (1998). These researchers emphasise the importance of the annual report as a means of providing information to interested parties on a regular basis. Stanton and Stanton (2002) note that annual reports are commonly regarded as the key accountability mechanism. This view is supported by Henriques and Sadorsky (1999) who view the annual report as "the most publicised and visible document produced . . ." (p. 91).

The notion of accountability adopted in this research encompasses a number of informational aspects that together form the basis for discharging accountability. These are often referred to as elements or tenets of accountability. The Australian SAC2 indicates that in order to fulfil the accountability function, financial reports need to contain information applicable in assessing economy, efficiency and effectiveness of resource use. Efficiency refers to the extent to which outputs are maximised from a given set of inputs, or inputs are minimised for a given level and quality of output (Perks, 1993). Effectiveness refers to the extent to which the objectives of operations, activities and/or programmes are achieved (AARF, 1990). Economy refers to the extent to which resources of a given quality are acquired at the lowest acquisition cost (Perks, 1993).

Coy (1995) identified a further three fundamental elements in respect of annual report disclosures appropriate to an accountability framework – compliance, future, and equity. Compliance refers to information to meet the reporting requirements of Generally Accepted Accounting Practice (GAAP). Future refers to information that assists users in making predictions about the future. There are two aspects to equity: equity in terms of fair distribution of wealth and equity in terms of

access to information. Coy (1995) adopts the term equity to mean disclosure of information about disadvantaged, minority or under-represented groups. In terms of this research, equity refers to equal access to relevant information for all stakeholder groups (Cooper & Keim, 1983; Lev, 1988; Stanton, 1997). It also refers to equity in respect of the information provided as expressed by Scott (1941): "Accounting must afford equitable treatment of all interests actually and potentially involved in the financial situations covered by accounts" (p. 342). This equity-orientation and its related "public interest" criteria for disclosure choices requires that a company respond to all users' information needs not just the needs of shareholders. Only then is accountability discharged. The equity element of accountability relates to equal opportunity to access the information and to all stakeholders having their information needs recognised. At any time, there will be differing views on what needs to be done to be properly accountable, because accountees are likely to be in favour of more accountability, and accountors, of less (Perks, 1993). This leads to a tension between these two groups (Ijiri, 1983).

Attitudes to voluntary disclosures depend upon the perceived relationship between cost-benefit trade-offs (Ho & Wong, 1999). Provision of additional information may allow stakeholders to assess more accurately the status of a company but, on the other hand, may put firms at a competitive disadvantage and involve additional costs (Firer & Meth, 1986). Disclosure costs fall into two categories. The first relates to the cost of collecting data, developing, presenting, and disseminating information. The second is more contentious and relates to competitive disadvantage from additional disclosures. Craswell and Taylor (1992) referred to these costs as proprietary costs. Proprietary costs are those costs imposed on the firm if the information disclosed can be used by external parties such as competitors, shareholders or employees in a way that is harmful to the firm. In this respect, Craswell and Taylor (1992) note that disclosure of oil and gas reserves by energy companies may reduce their proprietary value to the firm as competitors could use the information to plan their own exploration and production strategies. Firms will disclose information for which there is a demand provided they consider that the increase in firm value from disclosure will offset the decrease in firm value from proprietary costs (McKinnon & Dalimunthe, 1993). Therefore companies have to balance the desire to protect a competitive advantage with the need to inform stakeholders. On the other hand, Stanton (1997) argued that "Corporations cannot claim the right to privacy on the grounds of protecting their competitive position when such privacy reduces the welfare gains for society as a whole" (p. 691). It is expected that these contrasting points of view will be evident in the responses from electricity company preparers and electricity company stakeholders reported in this research.

Because New Zealand electricity distribution companies operate in a monopoly environment without price controls they have the potential to earn excessive profits. Information that enables stakeholders to assess economy, efficiency and effectiveness is therefore important. It can be argued that in such instances the withholding of commercially sensitive information is inappropriate.

The disclosure index that forms the foundation for this research included financial and non-financial performance measures. Such information is particularly important in the electricity industry where improvements in financial performance measures may be achieved at the expense of standards of service. Boyne and Law (1991) note that multiple measures of performance are particularly necessary when there are multiple publics (stakeholders). The views of such stakeholders in respect of performance reporting and other issues are discussed in the next section.

STAKEHOLDER AND CFO FEEDBACK

The evaluation and scoring of the 1998/1999 annual reports of electricity retail and distribution companies identified a number of areas where there were significant gaps between stakeholders' expectations of information that should be disclosed from an accountability perspective, and the information actually being provided (Hooks et al., 2002). In this earlier research, stakeholders provided feedback by questionnaire and interview as to what they thought should be disclosed in the annual reports of electricity retail and distribution companies.[4] A quantitative assessment of level of disclosure was then completed. This highlighted areas in which the companies were providing very little information. Laughlin's (1995) middle-range theory implies that quantitative results "cannot stand on their own but need empirical flesh to make them meaningful and complete" (p. 83). The intention of the current research is to provide this "empirical flesh" by reporting on the feedback received from stakeholders and preparers following individual discussions about the results of the scoring process. Three areas of concern were selected for further consideration:

- Reporting of segmental information;
- Reporting of performance measures; and
- The transparency of trust-held companies.

Feedback on these concerns was provided by interviewing two relevant groups:

- Members of the stakeholder panel; and
- Chief Financial Officers from a representative group of electricity companies.

The remainder of the paper reports on the feedback from those interviews.

INTERVIEWS WITH THE STAKEHOLDER PANEL

One member from each of the following stakeholder groups – employee, academic, auditor, regulator, consumers' institute representative, and major electricity user group representative – was invited to participate in a more detailed study of annual reporting by electricity companies. These stakeholders were selected because of their exceptional interest in earlier parts of the research and because of an indication that they would be willing to be further involved in the study.

A list of questions that were to form the basis of the discussion was sent to each stakeholder before the interview. The interviews were semi-structured. The list of questions provided the focus and structure for each interview but there was also opportunity for open discussion on other matters related to the industry and to the research. Details of each of the three areas of concern were sent to the stakeholders prior to the interviews and are shown in the boxes included in the discussion of each of those areas. The stakeholders had previously identified each of these areas as significant disclosure matters. The intention of the three summaries was to provide them with feedback from the evaluation process rather than to make leading statements that could influence their responses.

INTERVIEWS WITH CHIEF FINANCIAL OFFICERS

The research findings were discussed with Chief Financial Officers (CFOs) from the following group of companies in accordance with the index scores obtained for their annual report as a whole:

- The highest scoring lines company;
- The highest scoring retail company;
- The largest lines company;
- The largest retail company;
- A trust-held company;
- A council-owned company; and
- The lowest scoring company.

THE SEGMENTAL INFORMATION ISSUE

The following information was sent to the stakeholders to form a basis for discussing this issue.

Annual reporting – Key area of concern, number one

Segmental Information:

Separation of line and retail companies (Electricity Reform Act, 1998) has removed the ability for cross-subsidy between monopoly and contestable parts of electricity companies. However a new kind of vertical integration has been created with the forming of generation and retail companies and the opportunity to shift revenues and costs between these businesses. Similarly, electricity lines companies may be involved with other significant activities such as contracting businesses and/or gas networks.

Traditionally segmental reporting requires the reporting of operations which are in different industries or in a different country. However best practice disclosure (Association of Investment Management & Research, 1997) would require segmentation that relates to the way in which the business is organised and managed. Although this is not currently GAAP in New Zealand it is considered best reporting practice. In addition S44 (5) (d) of the Energy Companies Act 1992 requires consolidated financial statements to include an operating statement in respect of each significant activity. This information must be provided to shareholders. This means that the information is not generally publicly available as the reporting requirement for trust-owned companies is to the trustees (shareholders).

During interviews with the stakeholder representatives, concern was expressed for segmental information that allows stakeholders to see how much profit and sales revenue is attributed to each consumer group. This would require a segmental split by customer type such as: domestic, commercial, industrial. Alternatively, because of the difficulty in defining industrial vs. commercial users, a segmental split according to voltage class might be more appropriate, for example, 11 kv, 33 kv, 220 kv. This information would be in addition to a split between electricity and gas activities or between retail and generation activities.

Analysis of the 1998/1999 annual reports shows that only five of the 33 companies give segmental information in respect of sales revenue, expenses, and profit. TransAlta is included in this group. However there is no segmentation at all in their next annual report (year ended December 1999), despite the two distinct activities of retail sales and generation. In respect of segmentation of assets, 73% of the companies failed to disclose any information of this type and none of the companies with discrete networks showed these as segments.

Stakeholders' Opinions

The stakeholders generally felt that segmental information is more important in monopolistic electricity line companies than for other competitive industries. The major electricity users' group representative expressed a concern for disclosure by discrete networks using New Zealand's largest network company, which owns a number of regional networks throughout the country, as an example. These regional networks are geographically separate and therefore have different cost structures. In his opinion this breakdown should be provided in the annual report on the basis that different geographic segments of the networks have quite different operating, maintenance, and capital requirements.

It is possible that segmental reporting may be even more relevant if a lines company expands into non-traditional areas. Such hybrid businesses could combine distribution of electricity with the management of gas, water or telecommunications networks. The employee considered that it is important for each network to be treated as a discrete activity and that segmented financial results should be presented for each activity. He also noted that many lines companies have significant cash holdings from the sale of their retail businesses. It is possible that investment activities could exceed the 10% threshold stated for segmentation in the New Zealand Financial Reporting Standard (SSAP 23) and therefore the results of this activity should be reported as a separate segment.

Electricity retail companies which sell electricity to end users have both retail and generation activities. The regulator considered that:

> There is a good argument that the two are a homogeneous product that is highly competitive and therefore there is no real need to disclose segments. . . . The perceived wisdom is that there isn't any need for generation to be shown separately from retail. Others would argue that there is (Regulator).

Most of the stakeholders took the latter view and considered that segmental reporting in respect of retail and generation activities was important for these companies on the basis that the two activities were quite distinct operations. In their opinion the vertical integration of generation/wholesale/retail makes it important to report each segment separately, especially since retail electricity companies are exempt from MED disclosure regulations that are imposed on line companies.[5]

Stakeholders also expected that the retail business activities would be segmented. The consumers' institute representative stated that segmentation by customer class at the retail level would address the tariff rebalancing issue and enable interested parties to see whether the domestic sector was being disadvantaged. However, the regulator held the contra view:

Table 1. Summary of Stakeholder Feedback on Key Disclosure Issues.

Segmental Disclosure Issues	Essential Disclosures for Line Companies	Essential Disclosures for Retail Companies
Segmental information: Assets, revenue, expenses, operating profit by customer type, voltage class, key activity	Segment by – discrete networks, geographic segment, investment operations	Segment according to distinct operations, and, retail by customer class: domestic, commercial, industrial

> People say we should have segmentation by customer class – industrial, commercial, domestic. Those sorts of people seem to think that if domestics are paying a higher price for electricity they are cross-subsidising the industrial and commercials but that is not necessarily the case by any stretch of the imagination. More data could provide unnecessary problems (Regulator).

There was more concern for segmentation in the lines business than in the retail sector which is considered to be competitive.

Conclusions reached from the interview feedback are shown in Table 1 which summarises the segmental information disclosures supported by the majority of the panel. This highlights the stakeholders' expectation that information that makes electricity companies more transparent is a necessary part of electricity company accountability.

Preparers' Opinions

The CFOs were asked whether segmentation of results was appropriate for their company. The large retail/generation company considered that they operate in one segment – retail. In their opinion, retail encompasses generation and supply to customers, that is, one segment. This is based on a belief that the information is too commercially sensitive to be disclosed as separate segments:

> It is one of those commercial decisions which you have to trade off between informing the readers of your reports versus ensuring that you have maintained competitive advantage in areas such as costs per customer, average unit price of electricity etc. That is sensitive information that we don't want to disclose (largest retail company).

The lowest scoring company (for the quality of its annual report) has a construction business that operates as a separate business unit. It competes with external contractors for work and also does work for external customers. Although this business represents a little more than the 10% of the revenue of the company, it is not disclosed as a separate segment. The CFO considered that interested parties could obtain this information from the MED disclosures which include information

about the lines business only.[6] Interested parties could compare this information with the annual report disclosures for the business as a whole, and work out the results of the other businesses. In view of the earlier comment about the MED information being "incomprehensible for most consumers" (Macfie, 1998), this is possibly a rather unrealistic expectation.

The council-owned company also has a contracting business but considers it to be too small to require segmented disclosure. The same applies to the trust-held company. The CFO commented that the company was conscious of the commercial sensitivity of information related to this business and its activities.

In the next financial year, the large network company indicated that it intends to show segmental information for electricity, gas, telecommunications and maybe contracting activities as well. Concern was expressed for the difficulty in comparing this information with MED disclosures when there may be inconsistency in the method used to allocate corporate costs. The largest lines company owns a number of discrete networks but the CFO considered that segmented information in this respect would be commercially sensitive and difficult to produce. Revenue is recorded by load group or network type but costs are not recorded separately for each network.

Summary

Segmental reporting potentially provides rich insights about performance because it enables interested observers to identify those parts that are doing better or worse, improving or deteriorating. The study of electricity company annual reports by Hooks et al. (2001) reveals poor quality in disclosures relating to segmental activities. These interviews of selected stakeholders and report preparers sought their opinions on segmental reporting.

All stakeholders, apart from the regulator, felt strongly that public disclosure of segmented information was very important, in particular because it enabled them to track and investigate the possibility of cross subsidy between one activity and another, the domestic and commercial electricity supply being of particular concern. Report preparers and the regulator, on the other hand, were reluctant to provide segmented information mainly because of its commercial sensitivity and partly because of the expense of producing it.

THE PERFORMANCE MEASURE ISSUE

The following background information about performance measures was sent to stakeholders prior to the interviews.

Performance Measures:

A significant part of accountability involves the ability to assess the efficiency and effectiveness of the organisation. To this end the following performance measures were included in the disclosure index:

Performance Measures
Financial:
Debt to equity ratio
Funding cost cover (times interest covered)
Net tangible assets per share
EBIT/Average net funds employed
Dividend per share (cents)
Return on total assets
Return on equity
Overhead costs per retail customer
Pricing Measures:
Average domestic power bill
Pricing information
Efficiency Measures:
Total number of interruptions
Average total duration of interruptions of supply per customer
Average number of interruptions of supply per customer: 5–10yrs
Number of faults per 100 km of prescribed voltage line: 5–10yrs
Total costs per kilometre
Total costs per customer
Market Measures:
Average consumption kwh per customer (5 years)
Number of customers by sector
Change in market share in major areas of activity

These items acknowledge the holistic nature of performance reporting in that no single measure can give an adequate picture of company performance. In addition, the aim is to include performance measures which can be useful to a broad range of users.

The analysis of the 1998/1999 annual reports found that a few companies disclosed common measures such as debt to equity, dividends per share, return on equity but these were seldom given for a five year period to enable readers to examine trends. In addition to financial measures, consumers are interested to

know how much electricity costs, how often the power goes off and how quickly supply is restored. Some of these measures are submitted to the Ministry of Economic Development as part of the disclosure requirements of the Electricity (Information Disclosure) Regulations 1994 and 1999. These regulations do not apply to retail companies. The stakeholder representatives considered that inclusion of the above performance measures in the annual report was either of intermediate importance or very important. Of the 20 performance measures in the disclosure index, 19 were generally not disclosed.

Stakeholders' Opinions

Companies commonly hold the view that disclosure of performance measures in documents required by the MED is sufficient and that this information does not therefore, need to be included in the annual report. The stakeholders were asked to consider this. A comment in a MED newsletter that the information provided under the disclosure regulations is "almost, without exception, highly unsatisfactory"[7] was brought to their attention. All of the stakeholders supported disclosure of key performance measures in the annual report. The Consumers' Institute representative considered it was:

> Absolutely valid to ensure that these performance measures are in the annual report. The MED information is almost without exception highly unsatisfactory. The stuff needs to be all in one place (Consumers' Institute).

The major electricity users group member thought it would be better if all the performance measures were disclosed in the annual report so that there was one publication for stakeholders to access. The academic also expressed a desire to have all the measures in one document, the annual report, rather than having to access the Gazette or the Information Disclosure publications on the MED website. Sentiments of stakeholders were generally captured in this comment by the regulator:

> Seeing the stuff in the annual report is good because it gets a wider audience (Regulator).

Stakeholders confirmed that the annual reports of line and retail companies should provide five year trends for the performance measures shown in Table 2. Some of the performance measures are industry-specific.

Table 2. Summary of Stakeholder Feedback on Key Disclosure Issues.

Disclosure Issues	Essential Disclosures for Line Companies	Essential Disclosures for Retail Companies
Performance measures: Financial measures – Lack of trend data Most items not disclosed (18 out of 19)	All financial measures should be in one location in the annual report, and there should be 5 year trend data. Debt to Equity Return on Total Assets Return on Equity EBIT/Average net funds Accounting Rate of Profit (ROI)	Debt to Equity Return on Total Assets Return on Equity
Performance measures: Efficiency and reliability measures	Total number of interruptions Average total duration of interruptions of supply per customer Average number of interruptions of supply per customer Number of faults per 100 km of prescribed voltage line Total costs per kilometre	Total costs per customer Number of customers by sector

Preparers' Opinions

It was suggested to CFOs that companies should include the performance measures identified in Table 2, in the annual report.

The retail company agreed that disclosure of financial performance measures: Debt to Equity, Return on Total Assets, and Return on Equity, was appropriate but were concerned at the sensitivity of "Costs per customer" and the difficulty of ensuring all companies used the same definition of "costs." It was thought that this was a good indicator of a company's performance and of its ability to service customers well, but that a meaningful figure was difficult to obtain in an integrated company. Commercial sensitivity was also a factor in disclosure of "Number of customers by sector" and the company considered that, whilst it was useful information for annual report readers, the information could also be useful to competitors. However the CFO agreed to consider disclosure of this item in the future. It was agreed that disclosure of trends in performance measures was important and that the company would consider publishing three year trends in their next annual report. Five year trends are not appropriate as the company has not existed in its current form for five years.

The highest scoring company was concerned about disclosing the suggested financial performance measures in the annual report because of possible conflict

with those disclosed to the MED which relate to the lines business of the company only. The company has other activities such as rental property, and a treasury function, so that the performance measures reported in the annual report would be different from those provided to the MED which relate to the lines business only. This could cause the public to be confused as to the true result. The company considered that reliability and efficiency measures were just as important as the financial measures and that the company should improve its reporting of those:

> We recognise that we need to be a bit more accountable and we should show information that actually does have an impact on the customer (CFO, highest scoring lines company).

The lowest scoring company considered that most consumers and employees would not understand the suggested financial performance measures and that other interested parties could obtain the information from the MED disclosures. The CFO noted that the company's 1999/2000 annual report included some performance measures but expressed disappointment that "for a variety of reasons we don't have five year trends."

The CFO of the trust-held company agreed that the performance measures identified by the stakeholder panel in the closing interviews should be disclosed. The company plans to employ another accountant so that disclosure of relevant information such as financial and some efficiency measures can be given greater priority.

The council-owned company currently discloses five year trends for three performance measures. They would not consider disclosing Return on Total Assets as the CFO believes the asset base to be an unreliable figure for inter-company comparisons. The company sees "no reason why we couldn't disclose five year trends for reliability/efficiency measures."

The largest network company reports five year trends for Debt to Equity and Net Tangible Assets per Share. The company is open to disclosing additional measures such as Return on Total Assets and Return on Equity as well as some efficiency measures. Efficiency measures used to be included in the annual report but were removed when new networks were acquired by the company and historical data became meaningless.

The CFOs were interested to learn of stakeholder expectations with regard to disclosure of performance measures and supportive of suggestions for increased disclosure in this area.

Summary

Stakeholders are unanimous about the need to disclose performance measures in annual reports, showing five-year trends. Although much of this information

is available on the MED website the consensus is that this information should be provided in annual reports too, giving readers the opportunity to review performance indicators alongside the other information "in the one document." Preparers are more sympathetic about the disclosure of performance measures than segmented information. Any concerns related more to technical difficulties of ensuring that the indicators were understandable and tallied with similar, but slightly different, information reported to the MED.

THE TRUST TRANSPARENCY ISSUE

The following information was sent to stakeholders prior to the interviews:

Trust transparency:
The research has identified a lack of transparency on behalf of some trust-held companies. One company wrote to the researcher pointing out that their annual report was not a public document. In their opinion their accountability to stakeholders is driven by the Energy Companies Act 1992 which requires a Statement of Corporate Intent to be made available to the public. This is a forward-looking document which includes a statement of objectives and three year forecasts of performance indicators and financial statements. Its purpose is quite different from the accountability role of the annual report.

Three other trust-held companies do not make a full annual report available to the public. An abbreviated form with summarised financial statements, no notes to the accounts and no audit report is available on request. In one case the researcher was required to sign a confidentiality statement before receiving the full annual report. Another company advised that their business was not akin to a local body activity; the annual report was for shareholders only. Trust ownership of electricity companies is synonymous with "public" or "community" ownership. Such companies, if they wished, could remain non-accountable to parties other than shareholders simply by deciding to withhold public distribution of their annual reports.

Stakeholders' Opinions

As the research progressed, there was an emerging concern over the availability to the general public of information about the performance and activities of trust-held electricity companies. The researchers experienced difficulty in obtaining copies

of annual reports from some community trusts that were reluctant to make their annual reports available (Hooks et al., 2001). This concern was expressed to the stakeholders who generally confirmed that the level of accountability should be the same regardless of whether the electricity company is a publicly listed company with a wide distribution of shareholding, a company where the majority of shares are held by a local council, or a company where all the shares are held by a community trust.

Both the regulator and the major electricity users' group representative expressed concern for the accountability of trusts generally and for their level of efficiency. They were concerned that trust-owned companies be under the same controls as companies owned by local bodies. Another stakeholder thought that trust beneficiaries should be treated like public company shareholders for reporting purposes. Two stakeholders thought that trust-owned companies should report more fully than public companies because the ultimate beneficiaries are generally the customers or ratepayers of the district served by the company. As a result the community has a double-edged interest in the company's activities – as owners, and as users of the services provided.

One stakeholder noted that shareholders of publicly listed companies tend to be more knowledgeable than beneficiaries of a community trust and so can make better use of more limited data or limited disclosure. He considered that "it is beholden on the trustees to be more forthcoming with accountability than a publicly listed company." The academic pointed out that public companies are accountable in terms of their share price which is an indicator of performance. In his opinion, companies which do not have this monitoring device are less accountable.

On the other hand, the auditor considered that trust-held line companies had sufficient accountability through their MED disclosure requirements, and that whether or not they provide their statutory accounts to the public was irrelevant. If the companies are not involved in monopoly activities, then he believed they were no different from other private companies. However, the trust-held companies in the electricity industry are involved in monopoly business activities.

All stakeholders expressed some concern about the accountability of the Trust itself in terms of its reporting requirements but thought this was a wider issue applicable to all Trusts not just electricity company trusts.

Generally, the stakeholders were of the opinion that, in the interests of accountability, all trust-held companies should report not only to trustees but also to beneficiaries. In this respect some form of abbreviated annual report could be appropriate. However stakeholders were concerned that such a report should include segmental information (where appropriate) and the performance measures identified by stakeholders as essential disclosures.

Preparers' Opinions

The trust-held company's disclosure levels are cost-driven. As a company with rebate shareholders they are required to deliver 23,000 annual reports to consumers. The CFO estimates a cost of $2,000 per page so that, despite acknowledgment by the company of the need to be accountable, disclosure is limited. The CFO compared the 1998/1999 annual report with that of 1991/1992 and noted that disclosure levels were considerably higher in the 1992 financial year. In addition, he pointed out that the 1999/2000 annual report was ready to be posted and that, during the next week, he expected to receive 20–30 calls per day from angry consumers who think the company is wasting money that could be paid out as a rebate. Interested parties can access information when required as the company has an open door policy:

> Anyone can walk into our office and discuss anything they wish to know providing it is not commercially sensitive (Trust-held company).

The council-owned company considers it has an obligation to the public to be accountable. The CFO stated that the company has a culture of accountability, openness and transparency. As the local newspaper also has a keen interest in the activities of the company it is considered that it is better to be proactive in releasing information rather than being forced into a reactive position. As a large borrower the company also uses the annual report as a marketing document to financial institutions. Copies of the annual report are available to the public on request.

Management decisions about the disclosure of information appear to be driven by a desire to be "cautiously accountable." Both the cost of publishing information and the perceived commercial sensitivity of information have acted as deterrents to transparency.

Summary

In general, preparers are anxious to be accountable and to be seen to be properly accountable to the general public, subject to concerns about the release of commercially sensitive information which could erode competitive advantage. "Costs per customer" and "Average unit price of electricity" fell into this category. As to the specific concerns relating to the difficulty of obtaining copies of some trust owned companies' annual reports, many stakeholders felt that trusts should be even more even accountable to the community than companies because citizens are both owners and users of the services provided. Interviewees indicated that any reluctance on the part of trusts to be openly accountable seemed to be due to cost

factors more than anything else, although this does not reconcile with the earlier experiences of the researcher who was made to sign “a confidentiality agreement” to gain access to the annual report.

SUMMARY

The research that motivated this paper was based on a concern for the accountability of New Zealand electricity retail and distribution companies as achieved via the corporate annual report. Scores obtained from an evaluation of the 1998/1999 annual reports served as a proxy for the extent and quality of information disclosure. As a result of this scoring process, three areas were identified where there were significant gaps between stakeholder expectations of annual report information and actual disclosures: segmental information, performance measures and the transparency of trust-held companies. These concerns were discussed with stakeholders and company CFOs as reported in this paper.

Stakeholders expressed the opinion that trust-owned companies should be as accountable as other public companies and that copies of the annual report in its entirety should be available to interested parties on request.

Also, stakeholders considered that companies with both retail and generation businesses should show segmented results, particularly the separation of retail and generation activities. However, the CFO of the largest retail company stated that the term “retail” encompasses both generation and supply to customers and that the company therefore operates in one segment. This opinion stems from a concern for the commercial sensitivity of the information. In the 1998/1999 financial year the company disclosed a breakdown of sales by customer class: industrial, commercial, and domestic. This information is now considered to be commercially sensitive and is no longer disclosed.

The stakeholders expressed support for segmentation of line company activities by discrete network and by company activities such as electricity, gas, and telecommunications. Only one company has more than one network and it intends to disclose segmental information for its different business activities in the next financial year but will not segment information by discrete network.

All of the line companies interviewed had contracting activities the results of which are not shown separately. CFOs generally expressed reluctance to identify this activity separately and the stakeholders generally thought that contracting did not need to be identified as a separate activity given that most of the income earned was from construction and maintenance of the network. Only one company stated that they had a separate Treasury function but that this was not a significant part of their business activities.

CFOs generally support disclosure of five year trends for the performance measures identified by the stakeholder panel. However, the retail company was reluctant to report on "Number of customers by sector" or "Total costs per customer" stating that this information was commercially sensitive. Two lines companies intend to improve their disclosure of reliability and performance measures in the future. It is expected that all the company representatives who were interviewed will include some of the suggested financial and efficiency/reliability measures in their next annual report.

Commercial sensitivity of information was commonly stated as the reason for non-disclosure thus providing support for the claims of previous researchers (e.g. Clinch & Verrecchia, 1997; Craswell & Taylor, 1992; Firer & Meth, 1986) that firms will not disclose information that they perceive could put them at a competitive disadvantage.

Some CFOs considered that information, such as key performance measures provided by the company to the MED, did not need to be included in the annual report. Price (1998) noted that the costs of using information increase when that information is difficult to obtain. In addition there are costs associated with using information if it involves additional knowledge, analysis or interpretation. It is contended that disclosure of additional information in one document, the annual report, would reduce such costs.

CONCLUSION

According to Gray (1992), accountability is concerned with the right to receive information and the obligation to supply it. There are two parties involved in this accountability relationship and the objective is to achieve fairness to both (Tower, 1993). The research reported in this paper has explored how accountors and accountees view accountability responsibilities and finds that electricity company CFOs feel accountable to a range of stakeholders but that there is some difficulty in reaching agreement as to how this accountability is manifested. The risk of competitive disadvantage was a common concern. However, CFOs recognized the benefits of informative disclosure.

Efforts to improve accountability in this industry sector are informed by accountees who were competent to determine the information of most use to them. Ijiri (1983) notes that more information about the accountor is not necessarily better for the overall accountability relationship. There was some recognition by stakeholders (accountees) that the production of information is not a costless exercise and may present a burden on small companies. However, stakeholders were quite definite about the information they required in order to assess the

performance of electricity entities. In a monopoly environment controlled by light-handed regulation rather than price controls, reporting becomes the main vehicle for judging a company's performance.

While CFOs were generally sympathetic to requests for disclosure of financial and non-financial performance measures, there was an overall reluctance to provide segmental information. The paper therefore provides further evidence of the struggle between the opposing interests of accountors and accountees. However, feedback such as that given to CFOs in this research has the ability to reduce the tension.

The greatest tension between accountors and accountees revealed by this study is the paradox of the community trusts. The very organisations that might be expected to be most accountable in terms of public access to, and quality of information disclosed in the annual reports, are the least accountable of all organisations in the reformed electricity industry in New Zealand. On the basis that local communities have a right to accountability by their representatives and companies, these entities should be subject to the normal accountability mechanisms that apply to other custodians of public funds.

CFOs who were interviewed accepted the challenge to increase levels of disclosure in specific areas. Improved disclosure to meet best practice levels would contribute significantly to the effective information sharing between companies and stakeholder groups – thus improving the accountability of each entity.

NOTES

1. See Hooks et al. (2001) for details of the development and application of the disclosure index.
2. A number of authors (e.g. Beaver, 1981; Gray et al., 1995; Mitroff, 1983; Sherer & Kent, 1983) advocate that management is not merely the steward of the owners but also of employers, customers and society as a whole. Shankman (1999) considers that the interests of those stakeholders are "of intrinsic value" (p. 323).
3. Sinclair (1995) identified five forms of accountability: political, managerial, public, professional and personal.
4. Respondents were chosen because of their stakeholder position and because of their knowledge of what might be disclosed in corporate annual reports. They were asked to consider the cost-benefit of each information item they planned to list as a required disclosure.
5. The Electricity (Information Disclosure) Regulations 1999 are the cornerstone of the light-handed regulatory regime. They apply to lines companies only.
6. Other business activities such as contracting, and telecommunications are not included in the MED regulatory disclosures.
7. Electricity (Information Disclosure) Regulations newsletter, December, 1999, p. 1.

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APPENDIX A: INDEX DISCLOSURE ITEMS AND THEIR WEIGHTINGS

1.0	*Background about the company*	*Weighting*
1.1	Brief narrative history of the company	1.90
1.2	Management's objectives and strategies	2.80
1.3	Description of principal activities	2.50
1.4	Major contractual relationships	3.10
1.5	General development of business	3.10
2.0	*Information about management, major shareholders, related party transactions*	
2.1	Names, backgrounds, affiliations, remuneration of directors	2.80
2.2	Names, functions, remuneration of executive management	2.50
2.3	Major owners of company's stock and number of shares owned	3.10
2.4	Number of shares owned by directors	2.80
2.5	Related party transactions	3.00
3.0	*Assets*	
3.1	Assets by segment: energy, contracting, network, generation	3.20
3.2	Details of measurement basis of assets	3.90
3.3	ODV valuation of network assets	3.60
3.4	Amount of asset revaluation each year	3.30
3.5	Fixed assets purchased and sold in current year	2.50
3.6	Fixed asset details	3.60
3.7	Investments	3.30
3.8	Goodwill	2.90
3.9	Capitalised interest	2.60
3.10	Location, nature, productive capacity of principal plant	2.30
3.11	% plant capacity utilized	2.30

3.12	Depreciation method	3.50
3.13	Capital expenditure planned	2.90
3.14	Current assets: debtors, inventories, cash	3.30
3.15	Asset management plan	2.30
4.0	*Debt*	
4.1	Total debt outstanding and debt repayment schedules	3.30
4.2	Current liabilities: creditors and provisions	3.30
5.0	*Financial, operating and performance related data*	
5.1	Breakdown of sales revenue by segment	3.50
5.2	Sales volume by segment	3.10
5.3	Breakdown of expenses by segment	2.80
5.4	Profit for each segment as above	3.00
5.5	Other earnings	3.10
5.6	Cost of electricity purchased, generated, distributed	3.00
5.7	Major elements of costs	3.60
5.8	Details of unusual or non-recurring items	3.60
5.9	Goodwill written off	3.50
5.10	Funding costs	2.70
5.11	Discussion of results for past year	3.40
5.12	Historical summary of operating and financial data (5 years)	2.50
6.0	*Forward-looking information*	
6.1	Forecast of next years profits/earnings	2.50
6.2	Discussion on major factors influencing next year	3.10
6.3	Comparison of actual business performance to previously disclosed information	3.40
7.0	*Performance measures*	
	Financial measures	
7.1	Debt to equity ratio	2.30
7.2	Funding cost cover (times interest covered)	2.30
7.3	Net tangible assets per share	2.10
7.4	EBIT/Average net funds employed	2.50
7.5	Dividend per share (cents)	2.20
7.6	Return on total assets	2.90
7.7	Return on equity	2.90
7.8	Accounting rate of profit	3.00
7.9	Overhead costs per retail customer	2.30

	Pricing measures	
7.10	Average domestic power bill	2.10
7.11	Pricing information	2.90
	Efficiency measures	
7.12	Total number of interruptions	3.10
7.13	Average total duration of interruptions of supply per customer	3.20
7.14	Average number of interruptions of supply per customer: 5–10yrs	3.10
7.15	Number of faults per 100km of prescribed voltage line: 5–10yrs	3.20
7.16	Total costs per kilometre	3.20
7.17	Total costs per customer	3.20
	Market measures	
7.18	Average consumption kwh per customer (5 years)	2.40
7.19	Number of customers by sector	2.80
7.20	Change in market share in major areas of activity	2.60
8.0	*Other information*	
8.1	Information on accounting methods used	3.90
8.2	Contingent liabilities	2.90
8.3	Forward contracts for committed purchases	2.50
8.4	Capital contributions by customers	2.50
8.5	Dividend distribution policy	2.50

Note: The weightings were allocated by the panel of stakeholders: 1 = disclosure is of minor importance to 4 = disclosure is essential.

APPENDIX B: AN EXAMPLE OF THE QUALITY CRITERIA FOR ONE INFORMATION ITEM

Category 1: Background about the Company

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1. Background about the company

Brief narrative history of the company:
General description of the business and the competitive environment. Covers broad spectrum of activities and achievements set in the context of the social, political and economic environment.

Management's objectives and strategies:
A separate statement of management's broad objectives for the company including quantified measures and principal strategies to achieve the objectives. Should include factors or conditions that management believes must be present to meet the broad objectives. Should be in specific terms and items should be quantitative/measurable and the time frame given.

Description of principal activities:
Details of industry sector(s) in which the company operates. Description of principal activities and market segments. Also regulatory changes that management believes could have a significant impact on the business.

Major contractual relationships:
Description of major contractual relationships between the business and its customers and suppliers – retail contracts and wholesale supply contracts. Analysis of risks/benefits related to those.

General development of business:
Identify major events within past five years such as impact of industry reforms, mergers, disposition of assets, changes in mode of conducting business, frequency of price changes, number of customers, changes in number of customers.

THE ECONOMICS OF ACCOUNTING CRIME

Fahrettin Okcabol

ABSTRACT

The focus of this paper is to provide an understanding to the economics of accounting crime. The accounting crime is considered to be part of the white-collar crime, where economists believe that white-collar criminals are rational men. Thus, this paper assumes that a person commits an accounting crime is a rational man. In making choices, the criminal managers take account of expected gains and costs from various available actions. If they estimate that there is a net gain from their actions, they do commit an accounting crime. External pressures, internal pressures, capital requirements, and compensation pressures are the circumstances that may lead managers to commit an accounting crime. The paper concludes by arguing that if white-collar criminals know that costs of their action are more than the benefits of the action, as a rational man they will not take that action. Thus, the most important step to prevent white-collar crime is to make the cost of the crime so high that it will never generate an estimated net gain for white-collar criminals.

INTRODUCTION

Accounting concentrates on gathering, classifying, and interpreting information for an entity to help management to attain efficient and profitable production.

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Thus, accounting theory deals mainly with measurement of financial history. The growth of business organizations, plus pressures from stockholders, creditors, and government agencies, has increased the amount of financial disclosure that must be made public.[1] Consequently, accounting has a much greater importance to society which has a high degree of freedom of choice must have adequate and correct information in order to make such important decisions whether to invest, buy, sell, or lend.

Accounting is a communication system of great importance. Its validity and success affect the welfare of both insiders and outsiders. Voters are called upon to decide issues that hinge upon knowledge of financial data. Hence, accounting may be viewed as a social force. Therefore, one expects that every effort should be made to insure its proper functioning. Unfortunately, many organizations have been, intentionally, committing crimes against person and/or property for financial gain: such as the production of unsafe products (e.g. firestone tires) that lead to physical harm of consumers which is considered to be a crime against persons; the insider trading (e.g. Ivan Boesky), simply involve the transfer of resources from the victim to the criminal and impose no direct physical harm to anyone, which is considered to be a crime against property. Corporate crime may not be large in number of incidents but its social and economic impacts are often felt around the world of finance.

This paper intends to provide an understanding to the economics of accounting crime. It will, then, examine the types of crimes that individuals or organizations commit, emphasize will be on the white-collar crime. Finally, it will provide criteria to identify the violators and provide remedies to reduce these types of crimes.

THE ECONOMICS OF CRIME

Crime is a major social concern that has received increasing attention in recent years. An adequate understanding of criminal behavior requires a multidisciplinary perspective.

Examining the origins of law and the definition of illegal behavior doses not tell us much about criminal behavior itself. One way of examining such behavior is to view it as a social issue. For instance, Quinney (1974, p. 53) has written:

> . . . Most of the behavior in response to domination, including the actions of the oppressed that are defined as criminal by the capitalist class, is a product of the capitalist system of production. In course of capitalist appropriation of labor, for the accumulation of capital, conditions are established which call for behaviors that may be defined as criminal by the capitalist state. These behaviors become eligible for crime control when they disturb or threaten in some way the capitalist order.

> . . . criminality among the oppressed classes is action (conscious or otherwise) in relation to the capitalist order of exploitation. Crime with its may historical variations is an integral part of class struggle in the development of capitalism . . .

Taylor et al. (1975) suggest that crime is a deviant behavior in sociological framework. The motivation behind the deviant behavior may be somehow chosen as a response to the problems posed by living in a conflicted, contradictory society. Taylor et al. (1975) argue that criminalization of particular behavior is the importance of the type of norm being sanctioned by dominant groups or classes of other groups of classes.

While Quinney's views may represent somewhat an extreme, Taylor, Walton, and Young's position is much closer to the mainstream of sociologists or psychologists. Some of the concerns of sociologists, psychologists, political scientists, and other social scientists who study criminal behavior can be incorporated within the economic model. This is because economists argue that the gains and costs of criminal behavior include psychic elements (e.g. one possible gain to a juvenile from the crime of vandalism is peer approval).

As was discussed above, the explanation of the relation between social conflict and individual behavior that they offer is not clearly developed. Furthermore, Nickerson (1983, p. 12) claims, ". . . the failure to establish firm empirical relations between variations in poverty or unemployment and crime rates suggests that something more than 'conflict equals crime' is at work."

However, in 1968 an article by Gary Becker focused on an economic approach to understanding criminal behavior and designing effective policies for dealing with the problem of criminal activity. Becker (1968) essentially argues that criminals are about like anyone else – that is, they rationally maximize their own self-interest (utility) subject to constraint (prices, incomes) that they face in the marketplace and elsewhere. Other economists, also, start dealing with the economics of crime.

To the economists, crime is rational behavior – a choice that is made by a person or persons in deciding how best to spend their time. In making the choice, individuals consider what they stand to gain and what they stand to lose; that is they consider the benefits and costs of using their time in different ways – working legally, working illegally, or not working at all. One implication of this approach is that individuals have some knowledge, not necessarily perfect, of the benefits and costs associated with different actions.

In 1988 U.S. Department of Justice-Bureau of Justice Statistics (p. 114) reports, "There will never be a simple, single answer to the seemingly simple question, 'What is the total cost of crime to society?' Some estimates have been made. For example, Wharton Econometric Forecasting Associates, Inc., recently estimated the total gross receipts from criminal activity to be between $26.9 billion and

$136.9 billion in 1986 dollars. Where the actual total lies within this $110 billion range is unknown because many of the component costs cannot be measured directly." Assuming an average rate of inflation of 3% (very conservatively), this "market" will grow to $171 billion [$=110(1+0.03)^{15}$] in 2001.

From an economic point of view some crimes are more serious than others because they have a greater impact on the economy and on our well being, or economic welfare. To determine exactly how each kind of crime affects economic welfare, in order to keep it simple, the paper will consider three broad classes of crime: crimes against person, crimes against property, and illegal goods and services.[2] In each case it will consider the impact on the economy or society as a whole.

Crimes Against Persons

Crimes against persons, such as assault, affect society in an indirect way. First, if the victim is injured and required medical attention, there is the cost of that medical care that society as a whole expends scarce medical resources to care for the victim. Thus, society is worse off by the amount of medical resources used up.

Second, if the victim is incapacitated either temporary or permanently,[3] there is a loss of output (i.e. the goods and services the victim would have produced). Additional costs to society, due to this type of crimes, include the psychic costs suffered by the victim and/or victim's family, friends, and the community. Psychic costs exist, such as when a family member is unable to work or seek counseling because of mourning or grief.

Finally, costs to society from crimes against persons comprise costs incurred by the public sector to enforce the laws forbidding these crimes and to punish those who break the laws. Included are expenditures for police, courts, and prisons. While, private expenditures by households and business firms to avoid being victimized and/or as a result of victimization by these crimes are also a cost to society.

Crimes Against Property

Crimes against property, such as arson, affect society in a very different way. In this case, real property is damaged and destroyed, thus this represents a net loss to society; real assets are lost forever. However, in a large number of property crimes are simply property transfers from one person or group to another, such as burglary. Economists would refer to this as an involuntary transfer where the

victim(s) did not agree to the transfer. In the simplest case a burglar steal a car for his/her own use. Here, while one individual loses a car, another gains one. Thus, the net loss to society is zero if there is no psychic costs exist.

There are, however, some real costs to society associated with crimes against property. First, there are the costs of having some people working to produce economic "bad goods" instead of economic "good goods." This referred to as an opportunity cost: society loses the opportunity to produce goods and services that are of value.

Illegal Goods and Services

Illegal goods and services are, generally, called crimes without victims affect society in still another way. Resources used directly in the production of victimless crimes are not losses to society the way those used directly in the production of burglar are. In the case of victimless crimes the illegal output is obviously valued by at least some members of society. If no one valued the output, there would be no demand for the product and there would, therefore, be no production and use of resources.

In addition, victimless crimes may result in transfers of income or wealth from some individuals to others. From society's point of view there is no net change, but from the individual viewpoint some people gain while others lose. Several kinds of transfers can result. One example is property stolen by a drug addicts to support their habits. Financial fraud, committed by management against their suppliers, their shareholders, government, etc., is another one. However, if a person commits a suicide because of his/her financial losses (like people did it during 1930s stock market crash) through management's illegal transfer of wealth from shareholders to themselves would be a personal crime.

The final cost category, besides the psychic costs, is the criminal justice expenditures that society incur each year in an effort to police these activities and punish those who breaks the law. These expenditures will be financed via a tax, namely tax rates (for property, income, etc.,) will have to increase to accommodate the increased expenditures.

ACCOUNTING CRIME

This part of the study focuses on the prevalence of the securities violations as well as violation of the Generally Accepted Accounting Principles (GAAP). Whether corporation(s) is (are) required or not to comply with the SEC filing requirements, a

corporation (or an individual investor in securities market) may still be prosecuted by the SEC (and state authorities) if it makes statements in financial documents or other activities that violates the SEC and/or the GAAP requirements. In this study, the SEC litigation cases are used for a proxy for an accounting crime. The accounting crime is considered to be part of the white-collar crime. Thus, next section will examine the white-collar crime as broad issue, first. Then, the following section will discuss the accounting crime.

White-Collar Crime

White-collar crimes cannot be easily categorized as either crimes against persons or property. Some white-collar crimes, such as the production of unsafe products that lead to the physical harm of consumers, are more likely crimes against persons than crimes against property. The victims are physically harmed by the criminal activity of the firm. Others, like falsified financial statements, employee theft, and embezzlement, are more likely property crimes where the "victim is the firm." Consequently, real victims are the shareholders, creditors, government, etc.

Even though, there is no generally accepted definition of white-collar crime. Cunningham et al. (1990) point out that most common element of the white collar crime is that white collar crimes are committed in the course of one's occupation and involve a violation of the trust associated with the job. Namely, they violate their fiduciary duties.

Why Accounting Crime Occurs

As human beings, we all share certain needs – needs for basic survival like food, clothing and shelter, needs for safety and security, needs for social acceptance and belonging and needs for self realization and achievement. Financial and accounting type crimes are sparked by these needs, but with an element of greed added for the food measure. So Bologna and Shaw (1997) claim that such crimes are caused generally by need (a state of dependency) and greed (a state of mind).

Because of the assumption of rationality, one can view accounting crime in terms of the motivations of the criminals; one further, can postulate that criminals' motives are generally economic. For instance, the managers of firms can have a great temptation to violate their fiduciary duties through financial data to appropriate larger amounts of the corporate sources to them as bonuses that very well be determined from reported financial information. Accordingly, as the SEC's 1977 Advisory Committee Report detected:

> Very often there are significant motives for at least temporary concealment of adverse information on the part of corporate executives. Often a sizable part of management's total compensation, such as benefits from stock options or stock bonus plans, depend upon the price level of the company's securities. Frequently, their direct compensation – salary and bonuses – will depend upon the earnings of the company, thereby providing strong motivation to enlarge artificially the company's earnings. In addition, there is often simply the hope that news will be temporary and thus need not be disclosed.

In addition to managers' own well being, market forces may drive them to violate GAAP or SEC regulations to have their firm to stay competitive in its industry. Pratt and Zeckhauser (1984, p. 12) argue that if one assumes management are rational economic actors and maximize expected values, they are likely to commit fraud in order to their firm, consequently, themselves to benefit from it. They, furthermore, reason that management is unlikely to be deterred from self-deification because the likelihood of getting caught (and thus the expected cost of these crimes) is negligible.[4]

The paper, now, summarizes what are the circumstances that may lead managers to commit an accounting crime:

External Pressure:	Meeting earnings expectations of financial analysts. Meeting debt covenant agreement.
Internal Pressure:	Unrealistic revenue or expense containment goals.
Capital Requirement:	Planned stock sale (such as Initial Public Offering stage).
Compensation Pressure:	Where managers' compensation tied to reported earnings and/or stock price.

Bologna and Shaw (1997, p. 96) provide a rough guide to the classification of accounting crimes might therefore appear as follows:

(1) *Crimes against the company:*
- (a) Theft, fraud, embezzlement and breach of loyalty (i.e. corruption, sabotage by employees).
- (b) Fraud perpetrated against the corporation by its vendors, suppliers, contractors, customers and competitors.
- (c) Robbery, burglary, high-jacking and extortion by criminal elements.
- (d) Unfair competition.

(2) *Crimes for the company:*
- (a) Smoothing profits (cooking the books):
  - (1) Inflating sale.
  - (2) Understating expenses.
- (b) Balance-sheet window dressing:
  - (1) Overstating assets.
  - (2) Not recording liabilities.

(c) Price Fixing.
(d) Cheating customers:
  (1) Short weight, counts and measures.
  (2) Substitution of cheaper materials.
  (3) False advertising.
(e) Violating governmental regulations (i.e. EEO, OSHA, environmental standards, securities and tax violations, etc.)
(f) Corruption of customer personnel.
(g) Political corruption.
(h) Padding costs on governmental contracts.

Bologna and Shaw (1997, p. 2), also, provide primary environmental conditions that raise the exposure level of above basis for fraud are:

- Internal controls are absent, weak, or loosely enforced.
- Employees are hired without due consideration for their honesty and integrity.
- Employees are poorly managed, exploited, abused, or placed under great stress to accomplish financial goals and objectives.
- Management models are themselves corrupt, inefficient, or incompetent.
- A trusted employee has an insoluble personal problem, usually of a financial nature, brought about either by family medical needs, alcoholism, drug abuse, excessive gambling, or expensive tastes.
- The industry of which the company is a part has a history or tradition of corruption.
- The company has fallen on bad times (i.e. is loosing money or market-share), or its products or services are becoming passé.
- Internal audit resources are inadequate.
- Security resources are inadequate.

In short, managers keep committing accounting crimes more often than before. The SEC (2001a)[5] reports that there has been dramatic rise in volume of investor requests for help. Namely, in 1999, the SEC received and responded to 73,908 complaints and questions, a dramatic increase of nearly 39% compared to 1998. Meanwhile,[6] the SEC (2001b), also, reports for last six months (between 9/1/2000 to 2/28/2001) 245 cases of litigation. In fifteen years, the litigation cases have more than doubled when one compares latest litigation information with the paper by Okcabol and Tinker (1993), where they report that the SEC docket's litigation releases between 1/1/1985 to 6/30/1985 had 112 cases. Their empirical study[7] shows that the signs of the coefficients for all the independent variables are in the predicted direction and coefficients for variable A(1) and P(1) are significant at 0.0005 and 0.02 respectively. In a nutshell, their explanatory variables coincide

with the above mentioned circumstances (namely, external pressure, internal pressure, capital requirement, and compensation pressure) do lead managers to commit an accounting crime. Since as Tinker and Okcabol (1991) show that there, really, exists net economic gain to a white-collar criminal. It should not be a surprise to see that the SEC report higher number of litigation. Next section tries to explore the benefit of white-collar crime to the criminal.

Expected Gains and Costs from Criminal Activities

This study assumes that criminals behave rationally, like Becker (1968) and other economists argue. In making choices, the criminal takes account of expected gains and costs from various actions, where gain and costs include all kinds of psychic possibilities, including a taste or distaste for crime based on moral considerations.[8]

The kinds of gains that can be derived from a criminal act vary, depending on the type of crime and the individual criminal. The most obvious one is a monetary one. The second category of gains is psychic gains. This is a very general type and includes lot of possibilities – the thrill of danger or value of risk, a feeling of "getting back at the system," peer approval, a sense of accomplishment, and so forth.

However, The costs of engaging in criminal behavior are more varied and complicated. First, there are material costs. These include tools and equipment, such as gun. Material costs obviously very for different crime. Second, time costs are another category. Rather than committing an illegal act, the criminal could be doing something else, such as earning a legal wage or salary. This is the opportunity cost concept again. At a minimum, opportunity costs are the value of leisure time. The third type of cost is psychic cost, such as fear, anxiety, dislike of risk, guilt, etc. The final type of cost is expected-punishment cost.

Tinker and Okcabol (1991) estimated an expected gain or loss equation for a white-collar crime. They present, "a white collar crime valuation equation: it estimates the average net present value accruing to a criminal as result of a crime. In principle, the equation applies to various kinds of white collar criminal: client firm, client firm management, accounting firm" (p. 35). Nonetheless, their equation was elaborated from the perspective of criminally prone client management. Their equation is as follows:

$$\text{ENPVPC} = [G - R(1) + R(g)] - [\Pr(a) \times \Pr(c) \times \Pr(\text{exp.})].$$

where ENPVPC: Expected net present value per crime; G: Gains from the immediate crime; $R(1)$: Future losses arising from tarnished reputation; $R(g)$: Future gains arising from acquiring reputation as a "soft touch"; $\Pr(a)$: Probability

of crime being reported and being apprehended; Pr(*c*): Probability of being convicted; Pr(exp.): Expected penalty.

According to Tinker and Okcabol (1991, p. 341), an average net payoff of $327,450[9] is per crime and a probability of being apprehended is, only, 0.00065. They, also, point out that white-collar criminals may not suffer any income losses because these criminals, generally, receive suspended sentences. Finally, they argue that the average white-collar criminal is not as sophisticated as the professional accountants. Thus, an accountant who commits a white-collar crime will have a higher payoff and lower probability to get caught. Thus, as a rational man, accountants do commit white-collar crimes.

HOW TO PREVENT ACCOUNTING CRIME AND CONCLUSION

Accounting crimes are considered to be socially unacceptable behavior because they are willful misrepresentation of material facts in books of account or in financial statements for the purpose of cheating another person(s) to his/her economic detriment. Let us focus on what is perhaps the most common accounting crime: that is the crime of fraud (i.e. intentional deception – lying and cheating). Most corporate frauds are not usually discovered in the course of routine financial audits. A common question following the announcement of a company failure has been "Where were the auditors?" In 1988, American Institute of Certified Accountants (AICPA) start revising auditing standards to deal with fraud issues. The Statement on Auditing Standards Number 82 was designed to assist the financial auditor in determining if the error was unintentional which lead to the material misstatement or if the misstatement occurred due to fraudulent financial reporting or errors that arose from misappropriation of assets. However, Bologna and Lindquist (1987) argue that financial auditors cannot cover fraud when pretense is used to disguise a transaction or to cover it up. Thus, they recommended that public needs fraud auditors who can utilize their resourcefulness by concentrating on detecting fraud. Furthermore, they claim that the fraud auditors are likely to improve their necessary skills utilized to discover such illegal activities.

Moreover, the internationalization of capital permits corporations (especially banks) to circumvent capital requirements thus to avoid their own national disclosure regulations. Therefore, in addition to improving the national reporting requirements, there is a need for international corporate reporting requirements that makes it almost impossible for criminals to commit accounting crimes.

Finally, to avert accounting crimes, one has to remember that these criminals are rational men. Therefore, the white-collar criminals consider the benefits and

costs of using their time in different ways – working legally, working illegally, or not working at all. One implication of this approach is that individuals have some imperfect knowledge about the outcome of their actions. If these criminals know that costs of their action are more than the benefits of the action, as a rational man they will not take that action. As Tullock (1974) points out that there exists the deterrent effect of punishment with the economic rationality arguments, thus, the most important step to prevent white-collar crime is to make the cost of the crime be much more than the benefits that a criminal can generate from it.[10]

NOTES

1. The literature appropriate to judging the efficacy of mandatory disclosure by the Security and Exchange Commission (SEC) is extensive and interrelated in a complex of ways. This development is left for other studies such as Benston (1967, 1969a, b, 1973, 1975, 1979–1980, 1982a, b), Merino and Neimark (1982), Okcabol (1989), Okcabol and Tinker (1993), Stigler (1964a, b), etc. This paper, for simplicity, accepts that there has been increase in corporate disclosures since the disclosure system established by Congress in the securities Act of 1933 and the Securities Exchange Act of 1934.
2. These three type crimes and their impact on the economy are taken from Hellman and Alper (1996, pp. 30–34).
3. For an example of this type of economic study, see McPheters (1979) work.
4. Also see Tinker and Okcabol (1991) paper for the possible penalties and gains from a white collar crime.
5. Complaints Data in Graphs and Tables by the SEC: http://www.sec.gov/news/data.htm-3/13/2001.
6. Litigation releases by the SEC: http://www.sec.gov/litigation/litreleases.shtml–3/13/2001.
7. Okcabol and Tinker's (1993) statistical model and data variables are:

$$V(1) = f\{R(1), C(1), A(1,2), P(1), D(1)\}$$

Dependent variable: $V(1)$, where $V(1) = 1$, violators of the securities laws; $V(1) = 0$, no-violator of the securities law.

Independent variable: $R(1)$, where $R(1) = 1$, firm filing with the SEC; $R(1) = 0$, firm not filing with the SEC.

Independent variable: $C(1)$, where $C(1) =$ weighted average of Tobin's Q and Palmer's Index.

Independent variable: $A(1)$, where $A(1) = 1$, firms engaging in new issues of stock; $A(1) = 0$, firms not engaging in new issues.

Independent variable: $A(2)$, where $A(2) =$ age of the firm (incorporation date to the violation date).

Independent variable: $P(1)$, where $P(1) =$ a rate of return on total assets (net income/total assets) divided by the average rate of return for the industry using Forbes 500 data.

Independent variable: $D(1)$, where $D(1) =$ debt to equity ratio.

8. There have been several empirical studies with results that are consistent with the economic rationality arguments, including studies of the deterrent effect of punishment. For a review, see Tullock (1974).

9. An average net payoff of $327,450 equals to an expected monetary benefits of $328,100 less an expected fine of $650.

10. Since the writing of this paper, there have been a number of significant auditing, accounting, and business frauds and highly visible scandals. This has resulted in a number of regulatory legislation, attempting to strengthen corporate governance, such as the Sarbanes-Oaxley Act of 2002. Although this paper will not incorporate these into the current study, the paper recognizes these changes have taken place, and also suggests they do not address nor change the fundamental nature of the assertions made in this study regarding economics of accounting crime.

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ARTS AND LITERATURE REVIEW

BOOK REVIEW OF: *ACCOUNTING AND EMANCIPATION: SOME CRITICAL INTERVENTIONS* (SONJA GALLHOFER AND JIM HASLAM)

Tony Tinker

For many scholars, writing and publishing aren't so much a product or output as a process (what Marx and Engels described as self-clarification). This particular book would appear to fall somewhere between an unfinished project and a labor of love. Judged in these terms, this is an audacious and creative effort both in terms of its theoretical synthesis and its highly original redefinition of accounting – viewed through the works of Jeremy Bentham and others. By the standards of what is de rigeur in mainstream research (admittedly a pitifully low standard) this research far exceeds the typical.

Before proceeding, I should declare two somewhat contradictory conflicts of interests. First, the authors have been close and respected friends and colleagues for many years now, and second, for about the same period, I have published numerous papers that are deeply skeptical of many of the arguments presented in this book. I hope, at least, the first will survive the second.

Accounting and Emancipation is composed of two major components: First, a number of "theoretical" sections (covering what might be called pre-Benthamite issues) that chart the problematic of emancipation (and accounting). These sections address several important issues, including: how is it possible to synthesize the universal and the particular yet transcend both in a politically productive manner.

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This epistemic section is complemented by a historical material, including a detailed examination of Bentham's works as it presages accounting.

PRE-BENTHAM ISSUES

The liberal wing of accounting research has taken some peculiar turns into postmodernism in recent years; gyrations that are echoed elsewhere in social science (Petras, 1991). Such circumlocutions are also prevalent in Gallhofer and Haslam's book. The fingerprints of Laclau (1992, 1996), Laclau and Mouffe (1985), Lyotard (1984), Nederveen (1992), etc. are all over these sections, and this is where the book alerts us to the first troubles that beset postmodernist accounting research.

> We begin with the uncritical embrace of the 'philosophical critique of modernity . . . [specifically Laclau's desire to go beyond] . . . totalizing perspectives' (p. 19).

"Totalizing," in Laclau's sense, is the key that gives away the punch-line. Laclau's thesis springs directly from French disenchantment with Soviet Communism and its satellite: the French Communist Party. The red-baiters lump these "communisms" (and their progenitor, Marx) into the same dock as Totalitarianism and modern capitalism. The conclusion is that both are equally despotic.

There are several theoretical slights-of-hand in this maneuver. First, Marxism and Marx are branded with the atrocities of the Gulag and the brutalities of "living Socialism." Postmodernists, including accounting postmodernists, then proceed to deep-six (*do you really want to use this term? Yes, this is fine*.) Marx and any association with Marxist scholarship. Ironically, accounting liberals share a close affinity with the brutal practitioners of Living Marxism in one important respect: a flashcard appreciation of Marx that amount to little more than slogans and clichés (that coincide with sublimated, conservative proclivities).

Second, in their panic-flight from Gulag-guilt, many accounting liberals have taken refuge in a "cult of the hero." Foucault was the theorist-of-choice for the editorial team at Accounting, Organizations, and Society, while others have delivered sermons according to the gospels of Lacan (Miller & Rose, 1990), Bordieu and Giddens (1979), etc. Gallhofer and Haslam come dangerously close to this genre in their book: they soften us up with Laclau and Mouffre, and then deliver the knockout punch with Jeremy Bentham.

This is not to say that exploring the scholarship of writers such as Bentham is a futile exercise: Gallhofer and Haslam excavate many valuable insights from Bentham and other historical actors. Only that such enterprises should be tempered

by two caveats: First, to paraphrase Herbert Marcuse, our focus should remain on "ideas," not "heroes": the Left needs the former, not euphoric ad hominens, because ideas are more likely to endure and transcend. Second, in focusing on persons rather than ideas, we must be on-guard against being duped, even unwittingly, into an apologistic suppression of more potent political subversive alternatives. The "Spectre of Marx" is the obvious candidate here, where, at best, critical accountants rediscover the wheel, but more likely, they rediscover an imperfect version of the wheel (Derrida, 1978).

There are many gestures to Marx in Gallhofer and Haslam's text, however at several crucial junctures, they sometimes settle for the post-modern compromise and elect to run with an inferior theoretical product. An alternative route is via Marxism, yet Marx is to many accounting liberals, what Voldemort is to Harry Potter. He is "He who should not be named."[1] And just as Harry Potter tells Hermione that the muting of Voldemort's name only adds to his presence, so the accounting postmoderns would have found a better grounding for their insights and discoveries had they been willing to undertake a proper review of Marxism. To their credit, Gallhofer and Haslam are alert to these quandaries in contemporary accounting postmodernist scholarship. The problems are vividly exposed by the chasm between the historical case material, and the epistemic project of emancipation. Below, I elucidate Gallhofer and Haslam's concerns.

There are four ways in which accounting postmodernists stumble relative to the Marxist scholarship: first, on the relation between universals and particular, second, in regard to praxis and transcendence, third, regarding their idealistic (ahistorical) concept of the state, policy, and finally, concerning the origins of accounting. Each will be considered in turn.

THE ABSENT UNIVERSAL

Laclau and Mouffe among others set the stage for *Accounting and Emancipation* with constant skeptical reminders about a Totalitarian Shadow that lurks behind "Universal" (the "Brave New World" or Animal Farm that inevitably descends into the Gulag). Hence, the plea of Laclau and Mouffe is for a local politics of the particular with a stress on identity. True, they shrink from endorsing a Hobbsian brawl and acknowledge that a thread of coherence must unify particulars to form a larger Universal. Yet their fear of resurrecting the Totalitarian Specter is such that they cannot bring themselves to ever elucidate the nature of their universal. Instead, each time these authors reach the precipice, they relapse into a visceral diatribe against Totalizing. In doing so, they throw the (particular) baby out with the

Totalitarian bath water. These maneuvers are evidenced in Gallhofer and Haslam's selections from (Laclau, 1990, 215–216):

> . . . does not mean that the various demands are doomed to isolation and fragmentation, but rather their form of over-determination and partial unification will stem from hegemonic articulations forming part of 'historic blocks' or 'collective wills,' and not from the a priori ontological privilege of a particular class or social group.

From a practical viewpoint, this formulation contains a serious theoretical lacuna. Without an a priori, how can we know what particulars make up the universal? If we are to borrow Gramsci's "historic bloc" (incidentally, Gallhofer & Haslam should have mentioned that Gramsci did not jettison "class" as a universal) what particulars are to be invited to Laclau and Mouffe's marriage of convenience? Who should we admit into the bloc: racists, foxhunters, educators, sexists, lobbyists, the Freedom for Porn Society, legal lobbyists, Jews for Jesus, Decency in Media etc.? Any of the above? All of the above? While it is fashionable for the new liberals to gesture at the integral importance of the Universal for particulars, their visceral aversion to Totalising is so deep, that their particulars collapse into a chaotic mass.

PRAXIS AND TRANSCENDENCE

Gallhofer and Haslam in particular, and postmodernists in general, are – at best – ambiguous about the process of transcendence when they urge us to "think other thoughts" and "dream of other worlds" (Gallhofer & Haslam, 2003, passim; Knights, 2000, 2001, p. 71; Knights & Willmott, 1990; O'Doherty & Willmott, 2000, 2001, p. 116). The resurrection of this pure and repressed inner being (a Nirvana, or yet to be seen Golden Age) exposes an unexamined essentialism in accounting postmodernism, and a retreat into Cartesian identity thinking. Thus the positing of an (idealistic) pure and speculative "Dream-identity" over the present-day alienated, insecure, false identity, is not a transcendence of Cartesian identity thinking (a "fusion-of-opposites" or a "unity-in-difference") but a re-affirmation of it. In Adorno's terms, the "pure singularity" of a "secure other" is itself an abstraction (a new identity) that owes its existence to an "insecure self" for its inspiration; it is, the waste product of "identity thinking" (Adorno, 1973; Dews, 1986, p. 38).

Accounting postmodernists fail to apprehend the processes by which we may, and may not, transcend the present. Willmott admit this weakness when they refer to Foucault's work as, "fundamentally capricious, individualistic and ultimately nihilistic" (Willmott, 1994, p. 115) thereby affirming once again, a "discovery"

that had already been discovered in prior Marxist literature (Dews, 1979, 1986; Petras, 1991). Yet, too many accounting Foucauldians have yet to fully absorb the limitations of Foucault et al. Notwithstanding Gallhofer and Haslam's excellent discussion of Foucault's misreading of Bentham, Foucault is still alive-and-well in supplying a dream-like conception of unalienated possibilities that champions non-identity over identity (Gallhofer & Haslam, 2003, p. 18). In doing so, they fail to acknowledge that identity and non-identity are mutually constitutive of each other. Inciting non-identity to mutiny against identity is like inviting the hand to overthrow the head. What is needed is an "interpenetration-of-opposites" that isn't idealism, but retains the grain of truth in both, yet transcend both, forming a new identity.

Unlike many postmodernists, Adorno does not retreat to incomprehensible idealism, or primordial forces. Rather the "pain of individuation" both constitutes and splits the subject from her "real" and spontaneous self. The aim is to "use the force of the subject to break through the deception of constitutive (sovereign) identity" (Dews, 1986, p. 36). As Dews observes, "Living within the rebuke that the thing is not identical with the concept is the concept's longing to become identical with the thing – this is how non-identity contains identity" (Dews, 1986, p. 38). This rubric of negative dialectics is overlooked by postmodernists. Immanent criticism, the immanent method, and non-identity thinking are tools used to "break the freeze of conceptual systems" (Held, 1980, pp. 213–214). Concepts always apprehend phenomena partially – with remainder. By working from the inner history of phenomena, immanent criticism "operates within the 'force field' between concept and object, idea and material world . . . [It] . . . thereby strives to surpass . . . the object's self-image, and brings the object into flux . . . a heightened perception of the thing itself . . ." (Adorno, in Held, 1980, p. 213). Transcendence is obtained through socially disciplined engagements at historically specific "points of production."

The postmodernist difficulty in forming a socially-efficacious political project lies, in part, on a reliance on an episteme that, in the last instance, is logocentric and sovereign. This is evident in earlier post-modern literature's degeneration into a perpetual dance of undecidablity (Bernstein, 1987). Postmodernists are swift to jump onto a bandwagon that condemns Totalitarianism and totalizing thinking, however they usually realize that such criticism leaves them exposed without an evaluative epistemic warrant. At this point, they abandon criticism for "nuance" and "rich and messy details" (Willmott, 1994, p. 263). Terry Eagleton ridicules their discomfort in the following manner:

"Why bother to debate . . . when you can argue that all social analysis is blinded and indeterminate, that the 'real' is undecidable, that all action beyond a timorous reformism will proliferate perilously beyond one's control, that there are no

subjects sufficiently coherent to undertake such actions in the first place, that there is no 'total' system to be changed anyway, or that there is such totality but it is always terroristic, that any apparently oppositional stance has always already been included within what it resists, and the way the world is no particular way at all, if indeed we can know enough about it in the first place to even assert that?" (Eagleton, 1990, p. 92).

THE AHISTORICAL AND ASOCIAL STATE

The third weakness in the theoretical underpinnings of today's postmodernism is a voluntarist conception of the liberal democratic state. Gallhofer and Haslam cite quoting Nederveen Pieterse (1992): "democracy is a recurrent theme in the contemporary re-orientation of emancipatory thought" (p. 20). The authors then turn to Laclau to discover the postmodernist impediments to democracy:

> The central obstacle preventing the democratization of emancipatory discourses are Totalitarian bogeymen: . . . total ideologies which seek to define and master the foundations of the social (Laclau, 1990, p. 169).

In locating the problem with Totalitarianism, Laclau makes a breathtaking leap out of our present social reality. In this sense, assuming the same weaknesses attributed to Habbermas's ideal speech conditions, where the Nirvana that is desired is assumed to exist at the outset of their analysis. This idealistic error can in no way be mitigated by the torrent of historical data provided on Bentham, Henry Hyde Champion, and others. Absent is a theoretical structure for showing how this history "fits" (and might be reactivated) in our present. Indeed, absent is any acknowledgement of overwhelming facts of the here and now.

Campaign Finance Reform has been the longest running saga of American politics. Controversies rage by week about the power of un-elected bodies running the WTO, World Bank, NAFTA, etc. In both the U.S, and U.K., it is no longer necessary to use the indirect route of legal bribes with PAC (Political Action Committee) money to secure political largesse. Any millionaire can now directly acquire a seat at the table (e.g. Bloomberg, Berlusconi, etc.). Arnold Schwarzenegger, in his announcement to run for Governor of California, said it all:

> I am here to take back politics to the little people. Everyone in Sacramento has been bought by special interests. Everyone knows that I cannot be bought [because he is independently wealthy].

Thus capitalism now offers salvation for the system of liberal democracy that it itself has so effectively destabilized. It provides us with candidates for political

office who are so wealthy (and frequently so corrupt) that they can boast that they are beyond further corruption.

Given this parlous state of affairs, Laclau and Pieterse offer us little more than hand ringing. What Universal would put the degradation of politics into a larger socio-historical context? The generality that would bring all this home for Laclau is one of those totalizers that the stems from the essence of capitalism (Tinker & Carter, 2003, forthcoming). While not to diminish the importance of particular sites of struggle where this particular expropriation might be engaged, it is important not to compromise our grasp of the universal by succumbing to red-baiting and anti-Marxist ideology.

THE ORIGINS OF ACCOUNTING

What are the antecedent conditions (conditions of possibility) for the occurrence of (Bentham's) accounting? Gallhofer and Haslam devote many pages describing the works of Bentham, Henry Hyde Champion and others, and while much of this is fascinating in its own right (unless the circumstances that produced the phenomena are articulated) and they are shown to be "present in the present," these reminiscences can be little more than nostrums. For an alternative exposition of the historical interplay of economic, institutional, cultural, and technical conditions, we can use, as an example, the rise of quantitative methods (the precursor of Bentham's accounting) and calculus. In Descartes' celebration of quantitative methods, we find the early shadows of Totalitarianism:

> . . . which if properly used, is capable of leading to certainty. At the basis of his thought is the notion of the unity of mathematics, and by extension, the unity of all the sciences (Sutcliffe, 1968, p. 16).

In the Second Discourse, Descartes notes that,

> . . . all those particular sciences which come together under the name of mathematics, and seeing that, even though their objects are different, they are all concordant. . . . I would borrow all the best from geometric analysis and from algebra, and would correct all the defects of the one by the other . . . the method which teaches one to follow the true order and to enumerate exactly all the factors required for the solution of a problem, contains everything which gives certainty to the rules of arithmetic (Descartes, 1968, pp. 42–43).

Aristotelian physics provided Descartes with his initial theoretical orientation. Aristotle's Nature contained forces and qualities that were discernible through sense perception. His cosmic view was presided over by the Almighty, with prominence assigned to Earth and man, with the remainder of the Universe dispersed around them. Descartes reduced this totality to mathematics:

> Henceforward, the only spectacle which presents itself to the inquiring eye of man is that matter agitated by movements according to mathematical laws. God is no longer present in the world and neither is man . . . As mind, infinitely separated from a world which is matter, the role of man can only be that of dominating his surroundings, of becoming master and possessor of Nature (Sutcliffe, 1968, pp. 20–21).

The fall of the Enlightenment into its compromised condition, is a dialectical pattern repeated in the calculative sciences (including accounting). Calculus did not spring out of nothing. It appeared with the genesis of all modern science, and accompanied the capitalist revolution. The Great Renaissance and the emergence of industry and a capitalist class in the fifteenth and seventeenth centuries, had a tremendous influence on mathematics. Analytic geometry and calculus transformed mathematics from a science of constant quantities to the mathematics of varying quantities.

Mechanical tools of production, from windmills and cranes to water pumps and machines to drill stones, the expansion military and maritime technology and the natural sciences, required new forms knowledge pertaining to the analysis of motion, rates of change, acceleration, etc. Calculus was a response to a profound problem – the analysis of motion.

This socio-economic perspective on the search for adequate mathematical methods is a materialistic antidote to asocial and a-historical approaches that attribute inventions to the work of an isolated genius. Indeed, calculus was the culmination of the work of four generations of mathematicians from various countries. Through joint work and mutual discussion, differential and integral calculus emerged which, in the words of the physicist John D. Bernal, was considered on par with the telescope as an essential instrument of the new science. This mathematical "telescope" rapidly won successes in astronomy and many practical applications. As analytic tool for predicting and analyzing movement and equilibrium, made calculus especially attractive for early economists, but this allure masked a reactionary agenda that would turn economics into a partisan and repressive social practice.

Gallhofer and Haslam's emancipatory past requires a theorization that puts it into the present to give it a proper location and status. For instance, George Orwell's 1984 foresees a world of relentless hopelessness and futility – a futuristic Totalitarian state called Oceania. The Orwellian genre of "Negative Utopia"[2] augured – back in 1948 (84 is a transformation of 48) – the eclipse of the optimistic project of "The Modern" and with it, the progressive realization of a World civilization of justice and peace, that was transmitted from Greece, Rome, and Messiah-figure heralded by the Old Testament prophets, conveyed through Christianity, the Enlightenment, and today's scientific method. In short, Orwell's writing presages a future that was unspeakable in his present, although much more palpable today.

Orwell presents a completely bureaucraticized society that controls people with a brutality and intimidation. Orwell's Oceania controls the citizenry with a Thought Police, a Ministry of Truth, and an ongoing reconstruction of language into Newspeak. The populace of Oceania share is a common-sense ideology of double-think: *War is Peace, Freedom is Slavery, and Ignorance is Strength* (Orwell, 1950, p. 7). This is society that is maintained in a permanent state of terror (of nuclear war). These extreme circumstances warrant unflinching loyalty in order to pursue and destroy an enemy before that enemy destroys civility. No deviance, no diversion from this overriding purpose is tolerated. Any resistance, in language, thought, history, solidarity or social empathy, cannot be permitted. It is hard to miss the parallels.

In anticipation of Gallhofer and Haslam's positive emancipatory concerns, Orwell's (1984) is not about resignation and despondency. His main character is Winston Smith (a choice of name that reflects the socialist Orwell's ambivalence toward Winston Churchill.[3] Winston Smith finds refuge (and resistance) in recollections of a nursery rhythm, and – with echoes of Julienne (*do you mean Justine? No. this is correct*) and the Marquis de Sade – a sexual escapade. Unlike Foucault's notion of sexuality as an externally constructed process, Orwell, Adorno and Horkheimer view sexuality as encoded in human nature. Like "labor" in Marx, it is ultimately irrepressible. This massive reconstruction of society and popular subjectivity × (ideology) is a topic that has re-appeared in a range of literary, artistic and "scientific" works since Orwell.

IMPLICATIONS

Accounting and Emancipation is a work-in-progress. There is no pretence to deliver final conclusions. Rather, the aim is to candidly outline the challenges facing critical scholarship. That much of the empirical material is undigested, is in the spirit of this work. Gallhofer and Haslam have amassed a formidable range of literature in this project and in this respect alone, are exemplars of the eclectic tradition that distinguishes critical accounting from mainstream research.

NOTES

1. The ambivalence towards Marx in *Accounting and Emancipation* correlates with another anxiety of the authors that permeates the book: that critical accounting has not been as "successful," or is not as "well thought of," as it might have been (or as they might wish). The notion that any effective critical research, that is "worth the ticket," is – by

definition – destined to be denigrated and marginalized by the mainstream, the press, etc. doesn't seem acceptable to these authors. In this respect, they would do well to take a leaf out of the book of one of their historical heroes.

2. This contrasts with more celebratory pre-Enlightenment predecessors, such as Thomas Moore's Utopia, that helped usher-in the Renaissance (Fromm, 1950).

3. Churchill called for the use of lethal gas against Arabs in the 1920's, and promoted a not-so-veiled racist, Imperialist British foreign policy right up to the independence of India. In regard to the miner's strikes in the 1940's, he observed that, "A little blood wouldn't be out of hand here."

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REPLY TO CRITIQUE OF "*ACCOUNTING AND EMANCIPATION: SOME CRITICAL INTERVENTIONS*": SOME GOOD QUESTIONS, SOME INAPPROPRIATE TARGETS?

Sonja Gallhofer and Jim Haslam

We welcome the opportunity to respond to Tony Tinker's critique of *Accounting and Emancipation: Some Critical Reflections* (Gallhofer & Haslam, 2003).[1] It is an opportunity to clarify and reflect as well as to respond.

In the process of formulating our response, we kept returning to the thought that, in his critique, Tinker raises some good questions but that quite a few of them are directed at what for us are inappropriate targets – namely our own positions! The thought was significant enough to be worked into the title of our response. The structure of our response to the critique is straightforward: a summary of the key messages of *Accounting and Emancipation: Some Critical Interventions*, with especially key reference to chapter one ("Accounting and Emancipation: Developing and Promoting an Alignment"), a chapter that we see as particularly stimulating the substance of Tinker's critique; a summary of Tinker's critique, as we understand it, together with our response to his critique; some brief concluding comments.

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ACCOUNTING AND EMANCIPATION: SOME CRITICAL INTERVENTIONS

According to Best (1995, p. 270), ours "is an age devoid of emancipatory vision" (cited in Gallhofer & Haslam, 2003, p. ix). In *Accounting and Emancipation* we aim to impact upon the present in that our concern is to explore how accounting may be positively aligned with a (positive) notion of emancipation. In the process of exploration, we draw upon and intervene in debates from the social sciences and humanities (especially debates pertaining to emancipation), radically question existing practices and ways of seeing and engage with multiple accountings and agencies in various modern contexts. Aside from the motivating concern to search out an emancipatory vision vis-à-vis accounting, we hold that the relation between accounting and emancipation and how it may constitute a positive alignment are matters that are complex, multifariously shaped and notably fluid. Thus, another factor motivating our study is the need to keep such matters under review.

In our book, we challenge theoretical and philosophical discourse that has put into question the very possibility of an emancipatory project. We argue to the conclusion that emancipation can be seen in new and radical ways whilst remaining worthy of our commitment. And we elaborate the sense in which accounting is actually encouraged in this context. The key accounting focus is public external disclosure, understood as an element of the communicative structure of society. In our analyses, we radically envision accounting as a mutual phenomenon the social perception of which is significant. In respect of emancipation, we challenge dominant ways of seeing and interacting with accounting that constrain recognition of accounting's emancipatory potential. Consistent with a rescuing critique of a radically envisaged modernity, we argue that a policy of radical democratic development (advocated in critical dimensions of postmodern interventions – see, for instance, Laclau, 1990, 1996; Laclau & Mouffe, 1985) can be facilitated by openness in the communicative structure of society, to which accounting can be integral. We are concerned to conduct critical theoretical analyses of a broad if clearly not exhaustive range of manifestations of accounting as idea and practice. In our book, we provide and elaborate upon a number of social and historical processes, including the texts on accounting, or accounting publicity, of Jeremy Bentham, the usage of accounting by socialist agitators in the late nineteenth century and the relatively recent "social accounting" phenomenon of the late twentieth century. The final chapter of the book focuses upon accounting and praxis.

All the interventions of the book reflect an open critical theoretical perspective much influenced by German Critical Theory (see Gallhofer & Haslam, 2003, p. 164, No. 1).[2] Thus, chapter one engages with key theoretical debates in recent

years in respect of the concept of emancipation – a concept integral to our critical theoretical perspective – including debate that has sought to negate this concept of emancipation, to conclude that one may still appropriately give a positive connotation to the notion of emancipation. Our view, we should emphasise, is that critical social and historical analysis can be developed and refined, thus in some ways advancing its critical possibilities, through engaging with postmodern theorising. Consistent with this, we are concerned to facilitate and elaborate radical re-interpretations of past discourses and practices – including, if postmodern interventions are to pull back from avoidable contradiction, radical delineations and reflections of the modern – so as to highlight their emancipatory potentialities (see Arrington & Watkins, 2002, p. 155; Critchley, 2001, p. 123). Our theoretical position points to the continuing actual and potential significance of labour but also indicates the significance of other agencies. It elaborates upon the need to be cognisant of the multiplicity of interests and to reflect an ethics of difference as well as solidarity. Further, it cites the radical potential in the contingent particular (Leonard, 1990) and problematises the position of an ostensibly privileged knower (Fraser, 1986; Young, 1993).

Chapter 2, a theoretical extension and deepening of work that has been and remains one of our major interests, is an analysis of Bentham's project vis-à-vis accounting publicity *from a critical theoretical perspective*. The chapter indicates Habermas' positive reading of Bentham. At the same time, its major concern is to analyse Bentham's texts to elaborate positive – as well as negative – potentialities in these texts from a critical theoretical way of seeing.[3] The chapter focuses on dimensions of a key context in relation to the modern and a context that predates accountancy's formal project of professionalisation, a project that in the process of its realisation in some ways narrowed accounting's possibilities and displaced some radical potentialities. The analysis also includes some consideration of antecedents to Bentham and parallel work in his own time. The chapter is especially concerned to inspire us in the struggle to positively align accounting and emancipation and to particularly remind us of the historical longevity of this struggle (Gallhofer & Haslam, 2003, p. 65).

In Chapter 3, we consider the usage of accounting by radical socialist agitators aligned to labour, focusing upon interventions in the late nineteenth century. A contention here is that accounting is a practice, actual as well as potential, with no class belongingness or political affiliation in an absolute sense. Rather, it bears, in different ways in the trajectory of its dynamic, the signs of conflict and tension – including class conflict and tension – and is struggled over. We emphasise its contradictory character as a strategic practice (cf. Benhabib, 1986). Aside from elaborating much detail on accounting and a late nineteenth century context, we bring out the sense in which accounting in this context, both conventional – as

radically mobilised – and alternative, can be seen to align with an emancipatory project. It is used positively by the radical forces, with some apparent, if no doubt modest, positive consequences from a broadly radical perspective. In case studies centred primarily on the work of the socialist agitator Henry Hyde Champion and the cases of *Bryant and May* and *Brunner, Mond*, we find Bentham's vision at least partially echoed through the lens of a Marxist orientated praxis. The latter point is worth highlighting because it enhances interlinkage and interconnectedness in the text as well as indicating the longevity of such interventions.

Chapter 4 focuses on social accounting as an accounting form and content that has promised, especially in more radical discourse and action, to align with projects at least suggestive of more emancipatory concerns. Social accounting is often portrayed as a kind of emancipation from accounting – as accounting has more typically been conceived of – and is understood by some to have at least the potential to engender more emancipatory consequences. The chapter again provides contextual insights, problematises theoretical appreciations of social accounting and critically appraises social accounting in practice, focusing mainly on the social accounting phenomenon of the late twentieth century and theorising the differing positions and interventions of radical activists, business organisations, the government, the accountancy profession and academics. While this analysis focuses substantially upon U.K. manifestations, it opens out also to the global arena. We further increase interlinkage and interconnectedness between the chapters by entitling chapter four "Is Social Accounting the Soul of Justice?", a reference to Bentham's argument that publicity ought to function as the soul of justice.

The final chapter, or epilogue, in part informed by the previous chapters, reflects upon dimensions of accounting and praxis today and indicates ways forward in terms of how accounting may be better aligned to emancipation. The latter project is structured in a threefold manner with critical understanding, emancipatory vision and various wider forms of emancipatory practice being conceived of as interrelated aspects of praxis. Given the book's earlier elaboration on continuum thinking and cognition of the problematics of the context, the constitutive elements of the threefold structure have to be regarded as inevitably imperfect in character, providing no ready made or final solutions. This, however, is not deemed to negate praxis – not least because cognition of a problematic context can always be interpreted to imply the legitimacy of political action orientated to change.

SUMMARY OF TINKER'S CRITIQUE, AS WE UNDERSTAND IT, TOGETHER WITH OUR RESPONSE

In the following, we attempt to summarise Tinker's critique and respond thereto. For us, it is important here to clarify the points of critique because several of

these points are far from amenable to relatively straightforward interpretation. The difficulty of clarifying the critique is in part related to a form of its ambiguity. We are concerned to respond to the critique as much as possible and thus have opted to attempt such a clarification. We found that there were instances in his text where Tinker apparently raises or hints at some sort of issue but which were difficult to interpret as substantive evaluation. In the case of such instances we have simply pointed to the ambiguity.

Tinker's introductory remarks, indeed especially the first paragraph thereof, particularly evidence the puzzling form of ambiguity referred to. We are especially unclear about the sense in which much of what he writes here may reasonably be considered an evaluation, negative or positive. Tinker refers to our book as a process ("what Marx and Engels described as self-clarification") that falls "somewhere between an unfinished project and a labor of love." He later helps sum up his critique by putting forward the view that the book is "a work-in-progress" that does not pretend to "deliver final conclusions." In regard to the view specifically that the book lies *between* an "unfinished project" and a "labor of love," we presume Tinker is suggesting that our book can appropriately be equally well described as either. Should we be concerned about this or any of the comments here? We cannot assess their status as critique. What is meant by an unfinished project? What is not one, in this context? More especially, in what sense would one reasonably and appropriately *expect* a book entitled *Accounting and Emancipation: Some Critical Interventions* to deliver conclusions that are substantively "final?" What gravity does Tinker imply by "final?" Aside from whether it was or not, should we be disappointed by, or should we celebrate, our book as "a labor of love?" What should we make of these preliminaries? A slippery code deliberately adopted to facilitate some particular possible readings? Or, to use one of Tinker's analogies, a (surprisingly) timid sparring before an attempt to deliver the knockout punch? Classically of the genre indicated and focused upon, Tinker opines that by "the standards of what is de rigueur (admittedly a pitifully low standard) this research far exceeds the typical." This is a judgement, of its kind, and perhaps we should be thankful that our research is deemed to far exceed the typically "pitifully low" standards attributed by Tinker to the mainstream. But, as it were, how far is far? One might conclude that a sardine far exceeds a little whiting in size but they can both be considered quite small fish. It is interesting to note that, on the face of it, the least ambiguous part of the first paragraph is the view that the book "is an audacious and creative effort both in terms of its theoretical synthesis and its highly original redefinition of accounting."[4]

Beyond the first paragraph of Tinker's introductory section, we find in the third paragraph a reasonable interpretation of the structure of the book, once it is appreciated that the number of theoretical sections that he refers to constitutes material in chapter one.[5] There are a couple of points of contention for us that

we should mention here. We have some concern about the use of the notion that Bentham's work "presages accounting," given our aim of elaborating a balanced critique of that work.[6] The notion of "pre-Benthamite issues" that Tinker invokes here is also problematic in this context. Firstly, it is different from the "pre-Bentham issues" that provides the heading of his next section and has a quite different connotation. Secondly, the impression is given that the book is "Benthamite," a view that, especially given dominant understandings of that notion, scarcely characterises our interventions.[7] There are further possible issues here. The phrase "pre-Bentham issues" might be understood to imply that chapter one is an introduction *only* to, or informs *only*, chapter two (on Bentham) – whereas it is an introduction to, or informs, *all* of the book. And the reader may gain the impression that the book as a whole is focused substantially on Bentham, whereas Bentham is the subject of a critical theoretical interpretation and critique in just one of the chapters and, while Bentham is used, in a highly abbreviated way, as a linking theme (in especially chapters three and four), this is to enhance interlinkage and interconnectedness between the chapters.

Under the "pre-Bentham issues" section, Tinker addresses more substantive issues. He argues that the "liberal wing of accounting research has taken some peculiar turns into postmodernism in recent years."[8] He sees these turns – which he regards as problematic – as prevalent in our book. And he portrays us as uncritically embracing the philosophical critique of modernity and specifically Laclau's desire to go beyond totalising perspectives.

Let us attempt to respond to this first substantive issue. Our theoretical approach in the book is a critical theoretical approach refined and developed through engagement with postmodern critique (cf. Arrington & Watkins, 2002; Best & Kellner, 1991).[9] As such, it is not an uncritical embracing of the philosophical critique of modernity, although we may be deemed to accept aspects of that critique beyond Tinker's own position. We are concerned to refine modern notions of emancipation through recognition of the complexity, multiplicity and ambiguity of the concept and through principles such as continuum thinking – which has affinity with Adorno's negative dialectics (see Adorno, 1973) – and differentiated universalism. We place emphasis on the relevance of analysing detailed specificities of the social and upon the potentiality of radical democratic forces, reflecting the view of a number of writers that democracy is a recurrent theme in the contemporary re-orientation of critical work (Gallhofer & Haslam, 2003, pp. 19–20). Our analysis acknowledges a responsibility to positively align accounting and emancipation, albeit in the face of complexity, uncertainty, instability and contingency (Gallhofer & Haslam, 2003, p. 19). We see formulating alignment between multifarious emancipatory interests, identities and rationalities, with the various accounting implications, as constituting a terrain of social struggle

today. For Laclau (1992), opportunities are opened up in this regard for the radical critique of multifarious forms of domination and the possibility for more democratic societies (Gallhofer & Haslam, 2003, p. 18).

In his critique, Tinker appears to be aiming at more extreme or more pristine targets than ourselves. In contrast with an approach that would simply and obsequiously bow down to a postmodern approach opposed to a critical position, we critically engage with the postmodern critique and have been concerned to respond to contradictory as well as refining elements in the postmodern critique.[10] In pursuing such a concern, we have delineated the possibilities of a critical approach refined by postmodern insights. This theme in respect of modernity is elaborated in a paper of ours published in a previous issue of this journal (Gallhofer & Haslam, 1995). Consistent with this, in our book we elaborate an interest in a rescuing critique of modernity as a possibility of postmodern discourse. And we stress the possibility of theorising the global context and not succumbing to the myopia that threatens to manifest through postmodern thought (see also Alvesson & Willmott, 1992; cf. Squires, 1993; Žižek, 2000, 2001). Further, in pursuing our strategy, we aim to create more of a distance between, on the one hand, constructive and potentially benevolent elements of the postmodern critique and, on the other, nihilistic, contradictory or generally problematic elements. And we are concerned to bring this tension more into the light. We do not ourselves understand this to "coincide with sublimated, conservative proclivities."

Tinker understands Laclau's anti-totalising thesis to spring directly from French disenchantment with Soviet communism and the French Communist party, suggesting that, here, red-baiters lump these "communisms" with negatively conceived totalitarianism and modern capitalism. In this way, he suggests, postmodernists are then able to "deep-six" Marx and any association with Marxist scholarship. Given Tinker's view that we uncritically embrace the philosophical critique of modernity, it would seem reasonable to conclude that he lumps us with the red-baiting postmodernists who "share a close affinity with the brutal practitioners of Living Marxism" in their possession of "a flashcard appreciation of Marx" that amounts "to little more than slogans and clichés (that coincide with sublimated, conservative proclivities)." To paraphrase Jane Austen, our faults, according to this calculation, are heavy indeed. Further, according to Tinker, it appears we have been insufficiently on-guard against being – in some way, even "unwittingly" – duped into an apologistic[11] suppression of more potent political subversive alternatives, most obviously the "spectre of Marx." It is not clear whether we are then accused of rediscovering the wheel (Marx) or rediscovering an imperfect version of the wheel but, given the line of argumentation, reference to Derrida's "spectre" (see Derrida, 1994) suggests that if either it is the latter. Indeed, this interpretation is supported by Tinker's next point: he suggests that we make

many ambivalent gestures to Marx but "settle for the post-modern compromise and elect to run with an inferior theoretical product." For Tinker, we are, so to put it, "pottering around" with Marx and scarcely even name him. Although we are deemed alert to the quandaries in contemporary accounting postmodernist scholarship, we nevertheless ought, according to Tinker, to have better reflected a proper review of Marxism. And the problems for him are exposed by what he sees as the chasm in *Accounting and Emancipation* between the historical case material and the project of emancipation.

For our part, in regard to Soviet communism and even the machinations of the French Communist party, we acknowledge that these are gross distortions of Marx. Actually, we would also add that in our view a balanced assessment of past real world communisms would decide that, albeit enormously tainted by the most severe repressions that in no way one should make light of, these communisms were not *wholly* bad either (as a for instance, they arguably saved lives) – although, we emphatically agree here with the material point that they were gross distortions of Marx. As we are concerned to problematise dismissal and displacement of the case for radical emancipation, it would be stretching things to label us red-baiters. On these counts then we differ from the folk of straw constructed in Tinker's analysis. We do not lump the things together that he implies we do. Things are more complex. While one can appreciate the varying possible interpretations and mutabilities of texts, including of Laclau and Mouffe (as well as of ours), Tinker's interpretation of our particular mobilisation of prior theory appears here to be especially problematic albeit that he facilitates our own attempt to clarify things from our perspective.

We are not concerned to "deep-six" Marx as he implies. As we suggest in our book and have argued earlier (for instance, Gallhofer & Haslam, 1995), dimensions of a Marxist orientated praxis – and concerns to rescue modernity – are possible dimensions of a legitimate praxis for securing radical emancipatory change. In this regard, one can re-read Marx after reading the philosophical critique of modernity and not end up with a wholesale rejection of him (see Norris, 1982; cf. the speculations of Spivak, 1987). It is the case that we would not embrace a working with Marx that narrowly conceives class to be *the* agent of radical universal change and that takes history to be inevitably progressing towards the overcoming of basically capitalist structures.[12] This, however, does not imply the irrelevance of class or of theorising tendencies in particular contexts. It does not constitute a wholesale rejection of Marx. Hence, Tinker gets off on the wrong foot by implying that we are so much associated with this crudeness. Is it that he has other targets in his sights? To brand Marx with the atrocities of the Gulag and the brutalities of "living socialism" would be more than a theoretical slight-of-hand. It would be a crudeness verging on the extreme, a very poor level of argument that

on the face of it could scarcely be taken seriously (although this is not to argue that Marx has "all the answers").

Later, Tinker interprets what we have done not so much as a rejection but as an "apologistic suppression" of Marx, who is deemed the more potent politically subversive alternative. Our interpretive position as critical theoretical is influenced by Marx but it is a position open to development and refinement in accordance with the philosophy of the Frankfurt School. This is neither apologistic (in the "negative" senses discussed), pottering around nor ambivalent in relation to its handling of Marx. Nor in this theorising do we elect for a postmodern "compromise": it is not a compromise to develop and refine a theoretical position. As for Tinker's suggestion that there is a chasm between the historical material and the project of emancipation (or the theoretical elaboration thereon), we disagree here, too. The first chapter elaborates a more comprehensive theoretical overview whereas the historical case materials of the subsequent chapters may be taken to better merit the book's subtitle of *Some Critical Interventions*, with emphasis on "some." Although we claim to have selected some key and relevant episodes, we do not pretend to be exhaustive and it would surely be a fool's errand, given our way of seeing emancipation, for us to even attempt to be so. The juxtaposition of the empirical cases and the earlier theoretical elaboration on accounting and emancipation is meant to illustrate some possibilities of the latter elaboration rather than to serve as an exhaustive analysis. This juxtaposition suggests a gap that is a chasm of sorts but to emphasise this gap is not Tinker's substantive meaning. Tinker is suggesting that our own theory is not well reflected in our analyses. He appears to partly congratulate us for that (at the end of his analysis and in terms we accept to some extent) as well as – the material point in this context – to partly rebuke us. Yet we would argue that our chapter two contains an analysis of Bentham's radical emancipatory accounting project that draws from many of the themes of the framework chapter preceding it. There are, for instance, negatives in Bentham's confident intervention in the name of emancipation but there is also something to be rescued. And chapter three elaborates the possibility of a class-orientated approach within our framework that sees the opportunity for labour of re-capturing the ambiguous and not-necessarily-class-belonging character of accounting. Further, chapter four moves towards seeing social accounting as a mutable phenomenon that can be mobilised by a variety of agencies in different ways and contexts, again a position consistent with our earlier theoretical elaboration.

A further accusation of Tinker is that we naively expect too much of critical research, given the imperfect context of its operation. Our concern in our work is merely to judge critical research, its advocates and its practitioners, by its results. We take this to be a principled position. We have, to be sure, a substantial grain of pessimism, given the context, about the powers of critical research and researchers

as agents of change. We choose, however, not to let that stand as an overbearing excuse either for ourselves or for others, no matter what feathers are ruffled in the process. Rather, we are concerned to avoid displacing progressive interventionism and a substantial rationale for such interventionism.

In elaborating further upon the "accounting liberals," Tinker suggests that many of them have inappropriately found refuge in a "cult of the hero" (the hero being, for instance, Foucault or Lacan).[13] While he intimates that we are not quite included amongst these many – we just "come dangerously close" to the genre they constitute – he does go on to suggest that we afford hero status to Bentham in our work, so perhaps the argument is that we are more than dangerously close.[14] It would be surly to look for the heroes in Tinker's own analysis. Besides, a material point is that those he takes issue with are held to have *taken refuge* in the cult referred to. There is something in his argument here but we suggest that it is nevertheless somewhat unfair. In the process of constructing a theoretical argument, we all make use of previous arguments and ascribing these to particular people is, for many writers, something in the nature of a practicality rather than hero worship. We acknowledge that we have made an attempt to offer a more balanced account of Bentham, or Bentham's texts, to in some ways counter very strong criticism that we cite. This ought not to be seen as conferring hero status on Bentham albeit that the severity of the prior criticism vis-à-vis our own more balanced account may help engender the misreading. Thus we would not place stress on a view that either the texts of the "accounting liberals" that Tinker refers to, the texts of ourselves or indeed his own texts amount to taking refuge in the cult of the hero. Our work has always emphasised the special or particular character of the theorising of accounting (see the theoretical and methodological notes of Gallhofer & Haslam, 1991, 1996). Readings of social theory – from our perspective[15] – can be insightful but such theories have to be developed in particular ways in the process of their mobilisation. In contrast to taking refuge in the cult of the hero, we have tried to keep the focus on ideas.

Tinker suggests that there are four ways in which we – here referred to as accounting postmodernists – stumble vis-à-vis Marxist scholarship. The first of these concerns the relation between universal and particular. Here, we are once again taken to be as Laclau and Mouffe. Understood to be frightened by totalitarian shadows lurking behind the universal and failing to elucidate its nature, we are deemed to even throw the particular out along with the universal. For Tinker, we run the risk of implying that Gramsci jettisoned "class" as a universal. Tinker acknowledges that we gesture at the integral importance of the universal for particulars but he suggests that this is fashionable and in substance besides the point. To counter these lines of argumentation, we should emphasise that in the book, as elsewhere, we actually problematise the way of handling notions such

as totalitarianism that Tinker indicates he is concerned about (consider our usage of Žižek, 2000, 2001). We do indeed recognise the importance of the universal, including for particulars. Universalism is integral to particularism as a prescriptive mode. For instance, the principle indicating that one respect a given particular is on close analysis universal in character (Calhoun, 1995; see Butler, 2000; Laclau, 2000). In a similar sense that ethnocentrism and anachronism or chronocentrism are impossible to absolutely avoid, so is universalism: the point is, nevertheless, that we can invest universalism, as idea or *modus operandi*, with a positive content. This is not just fashionable but a substantive point that helps to emphasise a concern for the particular that is an important dimension of ethics. In our text we indicate the universalist character of a position sensitive to the particular by usage of the construct of differentiated universalism (Lister, 1997).[16]

The next stumbling block for Tinker concerns praxis and transcendence. We are described as – at best – ambiguous (!) about the process of transcendence in urging the thinking of other thoughts and the dreaming of other worlds. We do not, for Tinker, reflect a thinking that fuses opposites and locates unity-in-difference, a negative dialectics of non-identity. Rather, we are held to posit an idealistic, pure and speculative "Dream-identity" over the present-day alienated false identity, this deemed to reflect our insecure selves. This also reflects, for Tinker, the dream-like conception of unalienated possibilities of "Foucault et al." We stand accused of inciting non-identity to mutiny against identity: or "inviting the hand to overthrow the head." We fall, in this critique, into the postmodernist trap of "reliance on an episteme that, in the last instance, is logocentric and sovereign," evident in degeneration into undecidability (so, why do we bother?). We are deemed to abandon criticism for "nuance" and "rich and messy details."

Tinker's suggestion that we do not pursue a negative dialectics of non-identity overlooks a (somewhat implicit) reference in our interventions. The fusing of opposites and location of unity-in-difference is captured in our notion of a continuum thinking (cf. Gabardi, 2001; Lather, 1991; Prokhovnik, 1999) that seeks to overcome a rigid dichotomous thinking, stresses the impure character of all but the currently deemed unknowable extremities, understands contextual dynamics as encompassing forms of continuity and appreciates the lack in concepts vis-à-vis the particulars they are mobilised to grasp. This constitutes a dimension of Adorno's thought echoed in the relatively recent theoretical debate that we engage with in our opening chapter. Continuum thinking is an articulation of the idea that identity and non-identity mutually constitute each other. Our argumentation here does not contradict the presciptive moment characterised by Tinker as retaining "a grain of truth in both yet [transcending] both." We do not see our emancipatory vision as perfect: it is not reflective of the "resurrection of this pure and inner being." One can speculate on ultimate visions – that one can scarcely sketch, let alone give

substance to – but we consistently aim to appreciate the imperfect character of the context of which we are part. Affirmation of agency is not the same as championing "unalienated possibilities" in the sense Tinker suggests. To persist with the logic of the criticism here would tend towards, then, the undermining of any emancipatory project, including Tinker's own. In a world in which things may be undecidable in a particular sense from a reflective philosophical perspective, things nevertheless have to be decided and this is the key to some pragmatic way forward in this context. A universalist pragmatics and discourse ethics, for instance, is one way of seeing that engenders a logic yielding a rationale for "bothering." Further, a concern with style and detail is not the same as abandoning criticism and we find it difficult to see ourselves engaged in the latter project. Are our positions not here again the wrong targets?[17]

The next issue for Tinker concerns the accounting postmodernist's "idealistic (ahistorical) concept of the state, policy" – deemed also an asocial and voluntarist conception of the liberal democratic state. In this critique it appears – again, as Laclau and Mouffe – that we are too naive about the possibilities of democracy, radical or otherwise. Somewhat in contrast to the view that we are in the process of degenerating into a nihilistic undecidability, Tinker suggests that in our work we naively entrust the possibilities of democracy in a liberal democratic state. For Tinker, what we deem impediments to democracy are not things of substance. Rather, we are held to take on board "the same weaknesses attributed to Habermas's ideal speech conditions, where the Nirvana that is desired is assumed to exist at the outset of the analysis." In contrast, according to Tinker, we should recognise the corrupt order of things: that money is formal "democratic" power, for instance, and that we are in such a bizarre state that some weight is given to candidates for formal political office who are so corrupt that they can boast they are beyond further corruption. To counter this, a universalism cognisant of the significance of capitalism is needed and Tinker suggests we do not take this on board. This absenting is held not to be mitigated by the torrent of historical data we provide. Rather, in this respect, we are held to absent acknowledgement of the here and now.

In response, we do not assume the actual manifestation of an ideal speech situation (for us this functions as a loosely conceived prescriptive or normative-official notion in a form of immanent critique). Rather, we recognise the imperfect and adulterated character of any acts in our context – including, we should emphasise, the interventions of academics who are not immune from their context but whose practice is riddled with or cut through by tensions. And we are also cognisant of the imperfect and corrupted character of our liberal democratic state.[18] If it is inappropriate or naive to pursue a project concerned to mobilise radical democratic processes that are concerned to problematise their context (the context of liberal democracy, for instance) then is it not inappropriate or naive to engage

in any academic activity? Is that not doomed too by the context of which it is part? If Tinker may read us as naive here, we see our stance more in terms of at least reflecting remaining strands of optimism, a belief that people can and should make a difference, a belief that there is a lack in the context that makes radical change through radical intervention possible. Of course, this means arriving at a critical form of understanding that gives cognisance to the particular form of capitalism and its dynamic tendencies, among other things.

The fourth issue for Tinker concerns the origins of accounting. According to Tinker, again, we do not theorise the antecedent conditions (contextual and contextual-historical) for the accountings we explore: "while much of this [our account of Bentham, Henry Hyde Champion and others] is fascinating in its own right, unless the circumstances that produced the phenomena are articulated and they are shown to be 'present in the present,' these reminiscences can be little more than nostrums."[19] Tinker then elaborates on the interventions of Aristotle and Descartes. He argues that the dialectical pattern that constituted the compromising of the Enlightenment is repeated in accounting with the latter being understood as a calculative science that did not "spring out of nothing" but "appeared with the genesis of modern science, and accompanied the capitalist revolution." In this regard, the emergence of a capitalist class had a great influence on mathematics. In contrast to such an analysis, we are understood to "attribute interventions to an isolated genius."

In using the phrase origins of accounting, Tinker risks mixing up historical beginnings with antecedent contexts of which accounting is part. Given his constrained elaboration on the former, however, it appears that his attention to the latter is the one with more substance. He suggests that we have little appreciation of continuity, the seeing of the past as "present in the present," including tracing and delineating the negative forces in this regard (a history indeed, in part, of our problematic and negative present), when this is one of the dimensions of our approach.[20] Perhaps our fault is that we do not see this concern to locate the past as "present in the present" as exhausting the scope of an approach to social and historical analysis. Tinker's perspective on accounting as a calculative science overlooks an even wider possible way of seeing accounting that is integral to the very redefinition of accounting project that Tinker appears earlier to give praise to, a project of redefinition similar to the one in which Bentham was engaged. Yet, focusing on calculative science or accounting, we agree with Tinker that these did not spring from nowhere and we agree that capitalistic dynamics had something to do with their processes of formation. Perhaps Tinker is suggesting that our contextual analyses – that include elaboration on antecedents and parallels to Bentham and reflections on the socio-political and economic context thereto – are perhaps too implicit about such matters. Yet a reading of our contextual analyses

surely militates against regarding the interventions in respect of accounting we focus upon as the interventions of an isolated genius! As in the case of his suggestion that we grant hero status to Bentham, Tinker may here be influenced in his criticism by, for instance, our emphasis upon appreciating Bentham's texts as something to rescue.

Tinker not only suggests that we do not bring the past and present contexts into our analysis but also suggests we leave the future out too. His view is that we do not theorise consistent with Orwell, who, in *Nineteen Eighty Four*, while not succumbing to resignation and despondency – rather, his central character finds resistance in a nursery rhyme and, irrepressibly, in a sexual escapade – presages a future (a presaging that Tinker indicates was very insightful given what we have now, in Bush's United States, for instance). Perhaps the implication is that, for Tinker, we do not sufficiently challenge the "negative utopia" we have at least in some respects arrived at and, further, that we have not reflected the continuity of this unholy and unfortunate place with a past that includes the unleashing of "lethal gas against the Arabs" and the lust for a "little [miners'] blood."

We would respond by maintaining that we do see the present as problematic and in substantive senses continuous with the past. Tinker's concern here appears to reflect that he would add a different emphasis to this position. Our epilogue on praxis, the final part of the book, does attend to the future and makes broad suggestions with a view to encouraging a radical praxis. Its emphasis, as that of *Accounting and Emancipation* generally, is on the positive, enabling and emancipatory dimensions of interaction with accounting. The book reflects a concern to grasp context in relation to intervention. Its emphasis is, however, to give insights facilitating the realisation of emancipation rather than on elaborating the (uncertain) tendencies of the context or the contextual dynamic into the future.[21]

Tinker ends his review as follows: "Gallhofer and Haslam have amassed a formidable range of literature in this project and in this respect alone, are exemplars of the eclectic tradition that distinguishes critical accounting from mainstream research." This seems to us to be an attempt at a positive evaluation that risks falling into a problematically ambiguous position. By "in this respect alone" we take Tinker to connote in this respect among others, the particular "alone" being enough to satisfy the category. But, is it good or bad to be an "exemplar?" What is at stake here in use of the word "eclectic?"

CONCLUDING COMMENTS

We have endeavoured to respond to the opportunity provided here by seeking to clarify and elaborate aspects of *Accounting and Emancipation: Some Critical*

Interventions that relate to the critique put forward by Tony Tinker. We hope that the potential dimensions of *Accounting and Emancipation* will be in consequence further appreciated and, more substantially, that this will contribute in some way, no matter how small, to further positive realisation of that project of possibility constituted by the notion of positively aligning the processes and forces of accounting and emancipation.

NOTES

1. In this regard, we thank Tony Tinker for his critique (Tinker, this issue). Critique and response to critique are for us integral to substantive academic discourse. We thus do not jettison colleagues and friends over a critique of this nature: moreover, Tony, who has been colleague, friend – and critic – for some twenty years, has, if he can forgive the word, built up a fair amount of capital. Tinker expresses concern in the introductory section of his critique that in spite of having some bones to pick with our argumentation – and, at that, bones many of which he has already picked over before – he hopes that our friendship and collegiality will continue. It is this that motivates our reference to friendship and collegiality here: we also hope that our friendship and collegiality will continue. In response to the condition of possibility represented by the critique, we would, furthermore, like to thank Cheryl Lehman and *Advances in Public Interest Accounting* for affording us the opportunity to reply.
2. It is of note that we maintain in this respect that, in spite of their contribution, a disappointing dimension of many social analyses of accounting influenced by postmodern perspectives is that they have often manifested as crudely oppositional to more Marxist orientated approaches (Gallhofer & Haslam, 2003, pp. 164–165, no. 4).
3. While our prior studies are also critical theoretical, our critical theorising is here much more explicit than in our prior work on Bentham on accounting – work that has arguably made Bentham on accounting a substantive focus for accounting history.
4. This fragment of the text is rendered once more, however, particularly ambiguous as it is prefaced with the words "Judged in these terms." The problem here is that, as elaborated, we are very unclear as to what those terms connote (they appear to be very broad terms that would cover most texts). Let us, however, acknowledge this text as constituting a positive comment. We are very much concerned to engage in the redefinition project Tinker refers to.
5. The second paragraph is discussed in note 1, *supra*.
6. One might also add given our aim to locate Bentham's work in relation to an accounting dynamic. We have little doubt, however, that Tinker would acknowledge our concern to do this – and indeed approve of it. Tinker is not here referring to origins of accounting as conventionally thought of.
7. While we are concerned to make links between the historical episodes elaborated upon and in this regard indicate links to Bentham in the analyses of chapters three and four, for us, the book is best described, consistent with our earlier remarks, as a set of connected critical theoretical analyses, one of which finds Bentham a very interesting and relevant subject matter.
8. The meaning of liberal accounting and similar constructs in Tinker's text appear to be especially ambiguous. Sometimes such constructs seem to denote an approach to accounting

beyond a mainstream that is deemed conservative. At other times, such constructs appear to refer specifically to the postmodern variant of such an approach. Tinker also on one occasion prefixes the word liberal with "new," but given the earlier established ambiguity this adds to it. The reader may confuse the first use of liberal in Tinker's critique as having a broad connotation. From Tinker's experience of what he calls the mainstream – as illiberal – one could easily jump to the conclusion that he might be opting to use the word liberal in a broad sense here. From his usages of liberal later in the text, however, that interpretation would be problematic. If he had been using liberal in a broad sense, that would have arguably been a little unfair as there are a number of researchers of a mainstream bent who are far from illiberal (in a broad sense) in respect of research, perhaps especially in the U.K. where what Tinker regards as the alternative wing is arguably quite mainstream itself.

9. We prefer this mode of expression to "critical postmodernism" (see Gabardi, 2001, who elaborates the emergence of a critical postmodernism out of what he sees as antagonism between postmodernism and critical theory).

10. We suggest, for instance, that some postmodern interventions are guilty of the kind of negative totalitarianism they problematise in other perspectives (Gallhofer & Haslam, 2003, pp. 8–9).

11. When Tinker uses the word apologistic we take him to suggest that we act by argument and so as to defend in a way that he deems unjustified (consistent with Tinker's Panglossian notion of apologising in style) although he may also wish to hint that we act in a diffident manner (in which case apologetic would have given a stronger connotation and could also have indicated the former sense). Several interpretations are possible but the sense of a negative evaluation comes through.

12. We also place stress on the cognition of several possible capitalisms – as well as several possible socialisms – and on the notion that these possibilities reflect material and substantive differences (cf. Bobbio, 1987).

13. Perhaps he should have written "heroes," since at least one of the accounting writers he names in this context is understood, by his own analysis, to have at least two.

14. Tinker may here be suggesting that we have rescued Bentham for the postmodern, as the other heroes he mentions are often labelled postmodern. Our emphasis, however, is in elaborating a critical theoretical position on Bentham. One can find overlaps between Bentham and themes pursued in the work of postmodern writers – in the sense of positive alignments – such as, albeit limited, concerns about the problematics of universalism and the adoption of a consequentialist ethical stance (broadly echoed, for instance, in Lyotard's attempt to invest his own work with ethics). Nevertheless, it would be considerably stretching the point to maintain that Bentham was a postmodernist *avant la lettre* and we have assumed Tinker is not accusing us of this. In contrast, one's interpretation and mobilisation of Bentham could more appropriately be consistent with a postmodernist analysis. One can also find overlaps between Bentham and Marx (see Gallhofer & Haslam, 2003, pp. 39–40). We acknowledge that our concern to modify extreme anti-Bentham interventions colours the text in respect of Bentham: this aspect is something to take into account in analysing the text.

15. For us, in this critique, Tinker occasionally does not sufficiently acknowledge this in reducing our position to that of others, notably to that of Laclau and Mouffe.

16. Laclau and Mouffe suggest that the universal is constructed by particulars in particular contexts. They want to get away from privileging a (labour) particular over others.

They do privilege a position, of course, corresponding to what resonates with their values in the particular contexts of their interventions and the views of others that are deemed to co-incide with their own.

17. We should here comment on the passing reference Tinker makes to Foucault on Bentham in the context of these lines of argumentation. Regarding our arguments in respect of the view of Bentham that one may garner from Foucault's work, we should stress that Foucault uses an interpretation of Bentham's project as a metaphor for broader issues and another argument. The positives and negatives of Bentham's work are not the strict focus of Foucault's intervention. Nevertheless, a close reading of *Discipline and Punish* is suggestive of Foucault's ambiguous position on Bentham in this context. Although the evaluation is decidely negative, there are indications of a more positive appreciation. One can suggest, and here Tinker has a substantive point, that many of those influenced by Foucault have come to form an unwarranted view of Bentham or his works.

18. This is, at the same time, a construct the actual content of which may be constituted by a variety of possibilities that may in principle be evaluated against each other.

19. In the draft of Tinker's comments we received, the phrase 'unless the circumstances that produced the phenomena' is in brackets, threatening a very different meaning. We assumed that these brackets are in error and have amended accordingly.

20. It is at least implicit in the choice of the three episodes that constitute chapters two to four of *Accounting and Emancipation*.

21. That Orwell's central character finds possibilities of resistance in, for instance, a nursery rhyme, is a notion that also can be interpreted in helpful ways through a critical stance refined and developed through postmodern thinking.

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ART REVIEW: "TOPPLING CULTURAL ICONS: POLISH WOMEN'S ART EXAMINES GENDER AND DEMOCRACY"

Shana Penn

ABSTRACT

Poland's heady transition to a democracy and free market economy has brought dramatic changes in societal values and attitudes, and some of the deepest transformations have been in women's identity and gender relations, which this feminist art show explores. The exhibit draws its life force – and its title as well – from our global age of permeable borders, with its import-export of material and intellectual goods. This border became permeable in Poland only very recently, bringing in what some Poles call "good Western imports," such as monetary profits, and "bad Western imports" such as feminism.

A woman artist from the sea port city of Gdansk is on trial in Poland to defend her showing of a video installation critiquing male power. A charismatic feminist writer from Warsaw, who gained a popular following as a weekly talk show host on Polish television's most lauded cultural program, was fired because the show's producers found her views "too feminist." Paradoxically, in the same period of time that the country censored its own critics of patriarchy, it also welcomed in the *Vagina Monologues,* the Guerrilla Girls, and a Nan Goldin photography exhibit.

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As the first Soviet bloc country to make the historic exit from communism in 1989, Poland has for years manifested such contradictions. It will allow, at times, an artistic or feminist analysis of Western norms by Westerners, but not a comparable one from inside Poland that exposes the underpinnings of its own male power structures. At other times, however, a Polish writer might publish a sharp feminist analysis of public that becomes an overnight sensation, while Western feminist notions such as "the personal is political" are treated like a dangerous virus that can be contracted on airplane flights between Warsaw and New York. These paradoxes and other cultural ambiguities are reflected in an imaginative group show, "Architectures of Gender: Contemporary Women's Art in Poland," which showed at the newly renovated SculptureCenter in Long Island City, New York, from April to June 2003.

Identity questions have been at the forefront of Polish national consciousness since the country shifted political gears 14 years ago. The heady transition to a democracy and free market economy has brought dramatic changes in societal values and attitudes, and some of the deepest transformations have been in women's identity and gender relations. Contemporary Polish women's art has reflected those changes in fresh and provocative ways that have enlightened, excited and upset the status quo, which is steeped in nationalist and Catholic traditions. In fact, art and feminism are two of the hottest issues in today's Poland, putting newly acquired democratic staples such as equality, free speech and free expression to the test of public protest and even of several lawsuits.

That's how Dorota Nieznalska, a contributor to "Architectures of Gender," became the first artist in Poland to be defended by Amnesty International after a lawsuit was filed against her in 2002 for exhibiting "Passion," one of her characteristically bold artworks focusing on gender roles and religion. A video installation, it juxtaposes a metal cross, covered with a color photograph of male genitalia, with two projections showing the face of a man lifting weights. When "Passion" was exhibited in Gdansk, representatives of the Polish Families League, a conservative political party, stormed into the gallery with television cameras in tow to demand removal of the "deviant" art. (It's common spectacle in Poland for politicians themselves to remove an artwork.)[1]

The League charged Nieznalska with "offending religious feelings," which is no minor allegation, but rather, is part of the criminal code. The artist's fascination with all things masculine, from the grunts and groans of weightlifters to the rigid dictums of religious patriarchs, had already won her both praise and notoreity, and has now provoked a legal battle that could result in two years' imprisonment if the 30-year-old artist is found guilty. The trial continues today, a whole year later, still unresolved and hotly debated across Poland. Ms. Nieznalska took a needed respite during a court recess to attend the U.S. premiere last year.

Americans who saw the exhibition – New York's first group show of Polish art in 27 years – got a close-up view of the artistic currents and social forces at play in Poland today. The exhibition presented 16 site specific spatial and video installations, some of which were specifically created or revised for this show. Works were selected for their potential to work in dialogue with the dramatically different industrial spaces that comprise the SculptureCenter's location in a former trolley repair shop, stunningly redesigned by the architect Maya Lin.

Given the mandate to "gender the space," the artists prepared for the show from their studios in Poland, relying mainly on detailed photographs and building plans of the SculptureCenter's high-ceilinged galleries, underground corridors and outdoor courtyard. Although their creations resonated strongly with American experience, the cultural context was tied to Cracow more than it was to Queens.

Indeed, the exhibition of installations and performance art came together against the rousing backdrop of Poland in an era of flux. And although it also drew its life force – and its title as well – from our global age of permeable borders, with its import-export of material and intellectual goods, this border became permeable in Poland only very recently. Just three or four years ago, the country's images of women were determined by the traditional values that had shaped a culture of male dominance.

How does Polish society define "woman?" The still-prevailing, age-old image reflects the values of a predominantly Catholic culture that has struggled since medieval times to achieve national independence. "At the center of this romantic history, surrounded with a halo of grandeur and beauty, stands the male hero – the knight, the soldier, the fighter, the unbroken prisoner, the leader," writes Maria Janion, Poland's pre-eminent scholar of 19th-century romanticism.[2] A steadfast woman stands eternally by the man's side; she is a nurturing mother, noblewoman, and saintly Virgin Mary (also referred to as the Queen of Poland), willing to sacrifice her own needs, ambitions, and destiny to sustain her men and the nation. And so she does, she always has. She is *Matka Polka*, the Polish Mother-with-a-capital-"M."

In Poland, the myth of the female is comprised of three iconic roles, according to Isabel Marcus, a SUNY Buffalo law professor, who studies Polish laws and norms regarding domestic violence. "The cultural and historical trinity consists of a class-based tradition of ladyhood that is rooted in the culture of the Polish nobility; the popular cult of the Virgin Mary, suffused with traditional images of motherhood; and the gendered aspects of Polish nationalism, wherein women are honored minders of the hearth and transmitters of the cultural heritage, while men fight invaders and, when unsuccessful, are sent into exile."

These incumbent icons have remained unchallenged for centuries. Even communist rhetoric about female emancipation ("The Party solved the 'woman

question' ") reinforced the age-old stereotype by propagating visual images of robust women, who hoisted themselves onto tractor seats to help rebuild the devastated economy following the Nazi occupation of Poland in World War II. This "New Woman" of communist propaganda posters (her Soviet-red necktie flaps in the wind) wore unladylike pants, toiled in factories and fields, and had access to childcare and abortion much earlier than her Western sisters, but she remained as self-sacrificing as her predecessors and as cheated by glass ceilings as her Western counterparts. As always, her labors were performed in the service of a higher good, and she accepted her fate.

It's only in the past few years that Polish women artists and feminists have begun to counter these traditional female images. Younger women barely remember state socialism, and the Matka Polka icon makes no sense to them. On International Women's Day on March 8, 2000, the Polish Mother was burned in effigy, while a chorus of women shouted, "I've had enough!" On International Women's Day in 2001, dancing women in a church courtyard juggled neon-pink rosary beads the size of bowling balls while a cheering crowd chanted, "Democracy without women is not democracy!" This year, the theme was "Our Bodies, Our Selves," inspired by the U.S. feminist classic of the same title. At the so-called "happening" in Gdansk, male participants wrapped themselves in black chadors and marched alongside women who wore dog collars and carried signs that said: "Let's free ourselves from the leash of patriarchy."

You see, Poland's young democracy has not been woman-friendly. From its very inception, it has excluded women from participation in political and public life. For example, of the 60 Solidarity leaders who negotiated with the communists in 1989, only one was a woman, though women had made up 50% of the Solidarity opposition movement. And since 1989, women have shouldered a disproportionate share of the costs of reconstruction, from the highest unemployment rates to marginal political representation to the loss of their reproductive freedoms. The UN Human Rights Commission, the European Commission, and the U.S. State Department each cited violations of women's human rights in Poland in reports released during the tenth anniversary of communism's collapse in 1999. What's more, every day brings a barrage of sexist messages which are hard not to internalize, especially when it's the Polish Catholic Church equating feminism with Nazism at a Corpus Christi ceremony, or elected legislators proclaiming from the floor of parliament that God never intended women to compete with men in the workplace.[3]

Think "United States 30 years ago," before the legal and social advances of second-wave feminism unraveled the fabric of gender relations. At the time, "Americans assumed that gender arrangements would never change, because they were natural. Feminism popularized the view that gender roles could be rejected,

or at least transformed," says Agnieszka Graff, a Warsaw writer. Now jump ahead to present-day Poland, where a powerful Catholic Church reinforces the notion that biology is destiny, that male and female roles are preordained and not socially constructed.

And so, although Polish women and men waged the freedom fight together, "now women are not welcome in places where there is money, privilege and power," says Maria Janion, who is sometimes called the Simone de Beauvoir of Poland. "Women are not treated as full and equal citizens in this democracy." That's why Professor Janion and other feminists insist that a "male democracy" has been established. Janion has mentored two generations of academics and activists that are creating a multi-generational discourse on Poland's status as a "nation without women."

The communist legacy further complicates women's dilemma. Most Poles shun feminism because, in their minds, it is "ideological," a code word for "communism," the failed mendacious experiment. Truth is, woman stepped down long ago from the elevated pedestal of the tractor seat. By the mid-1950s, communist legislation prohibited women from doing hard physical labor such as driving tractors and other heavy machinery, because it was considered hazardous to their health, particularly to their reproductive health. The manipulation of women's labor and the hypocritical messages about equality bred suspicion and distrust not only for communism but also for feminism, no matter its origins. People haven't been able to see passed the deceitful "New Woman" poster image.

But then, when Agnieszka Graff, one of Professor Janion's former students, argued that "feminism is a *debate*, not an ideology, and we need this debate in Poland, because Poland is a world without women," people actually listened. Something snapped in the public's mind, and Ms. Graff's first collection of feminist essays, *World Without Women*, became an instant bestseller in Poland in 2002.

The tables are beginning to turn both in public debate and in art which, as curator Aneta Szylak stresses, is itself a legitimate form of social discourse. In "Architectures of Gender," artists have taken the traditional images of women and signed them on as handmaidens to their own edgy creations. Among the edgiest is Katarzyna Kozyra's hairy-chested male impostor, a clear, audacious challenge to the strict separation of sex roles. In 1999, Ms. Kozrya dressed in male disguise – beard, chest hair, and prosthetic genitalia – and entered a men's bathhouse (the famous Gellert in Budapest), escorted by two male friends, who were prepared to help her escape should her guise be unmasked. Using a camera hidden in a plastic bag, the 39-year-old artist recorded the conduct of men in their literal and figurative nakedness. The two friends filmed Kozyra, capturing her discomfort posing as a man inside the bathhouse – a discomfort she, herself, had not anticipated. "The viewer can see how the woman, despite her masculine disguise and her courage to break the rules, behaves in a social situation that is completely foreign to her,"

says curator Szylak. The viewer will likely also question whether the artist invaded men's privacy, and be compelled to explore the moral implications of that intrusion.

Most of the artists in this show belong to generations that came of age either during the final years of communism or the ensuing chapter of reconstruction. A few, informed by U.S. feminist art trends of earlier years, got their start in the 1970s, a decade of intense cultural isolation, or in the 1980s, when art largely served the patriotic cause of freedom from communist oppression. The 1990s gave artists their first opportunities to freely express themselves and become the social critics of the new democratic order. But the boundless enthusiasm that poured out in the 1990s is being thwarted today by new conservative forces that try to intimidate artists, curators and gallery owners with censorship threats. "Artists are fighting for liberal thinking in Poland," says Ms. Szylak. "Democracy, the piece of cake we longed for, feels a bit hard to digest."

Despite the obstacles, the artists in "Architectures of Gender" probe their country's dynamic social reality, crowded as it is with religious icons, national traditions, the communist legacy, democracy's growing pains, public-private dichotomies, class and ethnic divisions, unemployment, unequal opportunities, and the birth of a women's movement.

Though not all identify as feminists, these artists and their works are informed by Poland's clamorous, quick-witted women's movement, where a home-grown discourse on gender roles and power relations is progressing synergistically with women's art. Both feminists and artists are busy investigating the question: What does it mean to be a woman in Poland today? Indeed, that question became the title of a women's studies anthology published in the mid-90s, with a memorable headshot on the cover of a beautiful young woman peering intently at the viewer, searching for a reaction to the brown potatoes carefully piled on her head. At any moment, the burdensome spuds may tumble.

The woman-and-potatoes theme was picked up in 2001 by performance artist Julita Wojcik, also an exhibitor in the SculptureCenter show, who seated herself inside a venerable Warsaw museum, opened a bag of potatoes and started peeling them, bent over her lap, working quietly. Scrape, scrape, the skins dropped into puddles around her feet. Outraged critics and viewers insisted that a woman peeling potatoes was making soup, not art. "She desecrated our *national* museum, our *temple* of art," a curator at that museum explained to me. Delighted fans, in contrast, found a deeper line of meaning: Now that Poland is a democracy, can a woman say goodbye to her iconic duties of mothering the struggling nation? At what cost can she occupy time and space for herself?

Ironically, the Polish feminist discourse is unfolding – and exhibitions such as "Architectures of Gender" are conceived – even though there is no word for "gender" in the Polish language. The word is imported, adopted, a product of

cultural borrowing. In other words, as concerns this exhibition, we are viewing art works that explore a theme for which no word readily exists in the artists' native language. Visual images must therefore perform a fundamental role, hand-in-hand with a developing *logos*, in deconstructing sex role stereotypes and cultural icons.

In the past two years, as feminism has become increasingly disentangled from the loathsome memories of hypocritical communist propaganda and begun to acquire contemporary resonances, "gender" has become more or less comprehensible to the general public, largely as a result of the media attention that gender studies has received. The concept "gender" first began to circulate among Polish academics, soon after Professors Malgorzata Fuszara and Bozena Choluj organized the country's first gender studies program at Warsaw University in 1996. Since then, gender studies courses have spread to campuses in Gdansk, Krakow, and Wroclaw.[4] Even bookstores in major cities and the book catalogs of commercial publishing houses now specify a "gender" section for the burgeoning literary wares they offer in women's history, feminist literary criticism, oral history, biography, translations, and art. In the last three years, several feminist works on literary criticism have been nominated for the Nike, Poland's equivalent of the Pulitzer.

But though "gender" is being theorized, taught, debated and immortalized in print, it has hardly become part of the nation's vernacular. This should come as no surprise; the word has not exactly penetrated the everyday language of mainstream America either. It belongs primarily to the elevated vocabulary of academics in both countries (and elsewhere). However, there is a particular kind of resistance to gender studies in Poland, which is xenophobic in nature, that insists that the impressionable young minds of innocent students are being poisoned by a "bad Western import." In 2000, several polemicists rocked the Polish academy when they called for the removal of gender studies programs. "Beware the political correctness of American intellectual traditions," they warned. Their battle, played out in the press over several months, ultimately led nowhere, and gender studies continues to flourish.

Such controversies only reinforce the pertinence of the concept "gender" to the so-called "Polish situation," says Warsaw professor Bozena Uminska. The word may be imported, but the reality of sexism and discrimination it describes is totally home-grown. That is why, today, people (mainly women) are thinking, talking, writing, and creating art about "gender" (pronounced with a hard "g" and a rolling "r") – and even going so far as to defend the conversation in court.

"Art is a witness to its times," says curator Szylak, and "Architectures of Gender" is an occasion long overdue for revelation, an opportunity to learn how contemporary Polish women understand their lives and the swiftly changing cultural, economic and political landscape. Within the Polish context of a "male democracy," the women artists in this exhibition are daring ground-breakers

because, now that they are free to do so, they are making their own claims on space – social, political, economic, aesthetic, natural, and private space. “Their interventions in the realm of symbols are natural enemies of our politicians’ symbolically settled order,” Ms. Szylak emphasizes. In their artistic constructions of gender, we can observe how Polish women are building a democracy on their own terms.

NOTES

1. When we spoke in early April, Hanna Wroblewska, a curator at Warsaw’s Contemporary Art Museum (formerly Zacheta), compared the scandal to those provoked by Mapplethorpe and the Young British Art in the U.S.

2. Maria Janion, “Amerykanka w Polsce,” *Podziemie Kobiet* by Shana Penn, Rosner & Wspolnicy, Warsaw 2003, p. 6.

3. Since Poland joined the European Union in May 2004, it is likely that women’s economic position will be strengthened, because the country must adhere to EU gender equity laws and regulations regarding employment and economic opportunities.

4. Earlier on, in 1992, women’s studies courses were introduced in Lodz.