

ASSET DEPLETION ON THE BALANCE SHEET: AN IDEA WHOSE TIME HAS COME?

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ABSTRACT. This article explores the possible impact on cash flows and balance sheets of Florida's 67 counties if asset depletion were recorded in a manner analogous to that of private entities. Findings highlight the difficulty that may be encountered with changing emphasis of government accounting from focus on cash flows to that of actual resources utilized.

INTRODUCTION

The limited treatment of asset depletion⁽¹⁾ on the income statements and balance sheets of governmental funds is thought to be one of the foremost differences⁽²⁾ between generally accepted principles of municipal and private sector accounting (Reny, 1983; Thai, 1992). The writing down of value over the useful life of acquired assets is generally limited to internal service, enterprise, and non-expendable trust funds (Razek and Hosch, 1985). Under current municipal accounting practice, capital stock, such as bridges, roads, and buildings-- is recorded in the general fixed assets group of accounts at historical cost, with the jurisdiction having the

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option of listing accumulated asset depletion. Razek and Hosch (1985: 154-155) provide the rationale for this treatment as follows:

1. Governmental entities are interested in matching estimated revenues and expenditures with estimated revenues and appropriations. Since asset depletion is a noncash expense, there is no need to recognize it as an expenditure;
2. Governments do not pay income taxes, hence there is no reason to account for depletion as an expense deduction; and
3. Governments do not calculate information on return on investment and are not expected to make a profit; therefore recording of asset depletion is superfluous.

This accepted wisdom is consistent with the accounting profession's traditional focus on cash flows in governmental units (Leonard, 1985). This focus is changing in some areas of government accounting, especially in the areas of pension and loan guarantee obligations (Redburn, 1993). Nonetheless, the fact remains that at a time when "infrastructure crisis" has become something of a buzzword, most government entities--especially local governments--would have considerable difficulty estimating the depletion of their fixed asset base (Government Accounting Standards Board, 1987).

Failure to report this depletion is at variance with basic precepts of effective financial management. Departmental overhead costs cannot be accurate unless the costs of asset depletion are taken into account (Steiss, 1989). Non-enterprise operations such as recreation that establish user fees to cover at least part of their operating costs will be grossly negligent if asset depletion is unrecognized (International City Managers Association, 1990). Life-cycle costing of alternative fixed asset investment strategies requires accurate estimation of salvage value (Ammons, 1991; California League of Cities, 1984). Failure to accurately record true depreciation costs of fixed assets militates against the calculation of "boot" value. The same reasoning holds for lease versus purchase decision making. Communities that do not keep accurate depletion accounts are likely to be disadvantaged since they may over- or understate the useful economic life of the facilities or equipment under consideration (Ammons, 1991).

The failure to record depreciation in the fixed assets accounts has larger implications. From Herman Leonard's (1985) perspective, this failure is another "quiet form" of government spending, one that in effect, circumvents the normal appropriations process. Elected officials can avoid confronting the unpleasant truth of infrastructure deterioration and deferred maintenance if it is kept off the balance sheet or income statements and relegated to what amounts to a glorified footnote in most financial statements. This allows elected officials⁽³⁾ to push current consumption in the form of asset write-down onto future taxpayers, with negative impact on the current and future economic viability of communities at stake (Carroll, 1992; Laing, 1990).

The Governmental Accounting Standards Board (GASB) has been grappling with this issue for the past decade. GASB's 1987 Discussion Memorandum (Government Accounting Standards Board, 1987) and subsequent staff analysis (Attmore, Miller & Fountain, 1989) are outstanding compendiums of research on the topic. They indicate that the absence of infrastructural asset depletion from financial statements has been a source of consternation to experts in governmental accounting for over a half century, with compelling arguments on both sides of the issue.

As noted in Figure 1, advocates of more stringent, explicit reporting note contend that public statement of accumulated depletion would serve as a catalyst to investment, since the public and investment community would have clearer statements of infrastructure condition. Advocates also believe that explicit reporting of infrastructure depletion would contribute to more intelligent capital improvement planning. Reporting is consistent with a broader definition of accountability that goes beyond the traditional concerns of theft and fraud, and centers instead on representation of a community's true financial condition. And lastly, the advocates of more stringent depletion reporting contend that the current optional status of reporting accumulated depletion in the long-term fixed assets accounts leads to inconsistencies which disadvantage the communities that make the effort to report this depletion.

Those who are not in favor of the reporting of asset depletion on income statements or balance sheets focus on three points (Government

FIGURE 1
The Pros and Cons of Asset Depletion Incorporation

Pros:

- Recording/reporting may heighten awareness of infrastructure decline
- Facilitates improved capital planning
- Instills broader sense of accountability--i.e., moves beyond theft, fraud to interperiod equity
- Current non-reporting leads to misestimation of true operational costs
- Current optional reporting leads to inconsistencies between jurisdictions

Cons:

- May not be cost-effective, particularly in smaller jurisdictions
- Focus on historical cost may be misleading, even if objective and verifiable--Replacement cost and operational utility may be more important

Possible Solution:

- Adoption of hybrid "Capital Replenishment Account" that takes historical cost, replacement cost, and engineering statements into account--long-term implementation and historical modeling of cash-flows would be incorporated.
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Accounting Standards Board, 1987). The first is that recording the information is not likely to be an easy task given the current state of governmental cost accounting. Their second and most important contention is that while recorded depletion based on historical cost data is objective and verifiable, it is of little use to decision makers. Historical cost does not address replacement cost, technological obsolescence, or periodic refurbishment.

This leads to the opponents' assertion that the recording and reporting of asset depletion should center on what the author will term a "Tableau Approach" that shows the estimated condition of asset classes (e.g.,

streets, roads, bridges, buildings, sewers, etc.), within a community relative to a predetermined engineering or architectural standard. The engineering or architectural standards deployed in such a tableau would entail some degree of subjectivity. Nonetheless, adherents believe that this is the type of information that local decision makers and outside analysts such as bond raters need for assessing the condition of a jurisdiction's fixed assets.

These divergent views may be reconciled in a "hybrid" statement that deals with both historical and replacement cost, as well as periodic refurbishment efforts (Government Accounting Standards Board, 1987). This connotes a deterministic or probabilistic modeling of fixed asset status throughout their lifecycle. Such modeling lies at the core of recent efforts at accounting for future liabilities in federal agencies such as the Small Business Administration, Veterans Administration, and the Pension Benefit Guarantee Corporation (Redburn, 1993). It is this approach that informs the following exploratory analysis of asset depletion in Florida's 67 Counties.

EXAMINATION OF CAPITAL STOCKS AND FLOWS: A VIEW FROM FLORIDA'S 67 COUNTIES

This section of the paper addresses the capital stock and flow issue of asset depletion using balance sheet and revenue data from the 67 Florida Counties from Fiscal Year 1991-92. These data are examined in an effort to garner insight as to how adoption of asset depletion on balance sheets may differentially impact the Counties. These counties are highly differentiated in their socioeconomic characteristics. Some of counties in the northern "Panhandle" portion of the state are best described as economically backward, with agriculturally-based economies that peaked before World War II. Dade, Broward, Palm Beach, and the other "megacounties" represent a polar extreme, with reasonably strong economic bases centered on tourism, light manufacturing, and services. As one would expect, this economic differentiation also leads to vastly different levels of fiscal stress, with some counties spending well beyond their expected fiscal capacity, and others being less fiscally hypertensive (Frank, 1991).

The framework of this examination is based in part on a recent historical analog--an earlier study (Ciesielski, 1992) on implementation of Financial Accounting Standards Board Rule 106 for the 30 firms comprising the Dow Jones Industrial Index. FASB 106, "Employers' Accounting for PostRetirement Benefits Other Than Pensions," requires private firms to record post-retirement health and life insurance benefits on their balance sheet. This standard was first circulated in February of 1989, and adopted in 1991, with mandatory implementation by the end of the first quarter of 1993.

Prior to adoption, companies were allowed to show expenditures for these benefits on a cash accounting basis. A decade or more ago, when health care costs were increasing at a steady rate, this approach may have been conceptually inappropriate but substantively tolerable in light of then-current cash flows. But the recent explosive growth of health care costs made the cash basis of reporting "more irrelevant than ever" (Ciesielski, 1992: 15), with the new requirement better facilitating estimates of private firms' liabilities and assets.

In an assessment that is likely to portend of any future effort at putting accumulated depreciation on the balance sheet of public entities, Ciesielski found significant differences in the impact of adoption on current earnings and equity among the Dow 30. In terms of estimated 1993 earnings, General Motors was largest, with a reduction of 25.5 percent, and J. P. Morgan being smallest of the companies affected (McDonald's and Disney have no post-retirement benefits, hence were unaffected), with a reduction of 1.2 percent. Collectively, the Dow 30 stocks were estimated to take an earnings "hit" of about 14.8 percent for the year due to implementation (Ciesielski, 1992: 17).

It was in the area of balance sheets, however, that the effects of implementation were most differentiated, and in some instances, severe. Since they do not offer post-retirement benefits, McDonald's and Disney were unaffected. Some firms suffered relatively little damage. American Express, Minnesota Mining and Manufacturing, and Coca Cola lost less than four percent of their equity. But highly unionized manufacturing concerns with older work forces absorbed massive balance sheet damage. Caterpillar is lost 59.4 percent of equity, GM lost 87.8 percent of equity,

and Bethlehem Steel had negative net worth--157.8 percent loss of equity (Ciesielski, 1992: 16-17).⁽⁴⁾

Findings detailed in Tables 1 and 2 represent the application of Ciesielski's analytical approach to the asset depletion problem. These findings are based on combined balance sheet information collected by the Florida Comptroller General's Office.⁽⁵⁾ The Fixed Assets category in this assessment runs across all funds in the county, so it is a broader basis of infrastructure than that associated with fixed assets in the General Long Term Account. The same holds for revenues and expenditures, which are lumped across all funds.

While restrictions to general fund assessment may in some ways be more appropriate,⁽⁶⁾ reliance on the Comptroller's information assures inter-jurisdictional consistency. More importantly, this combined fund treatment is more comparable to private sector accounting, in which fund treatment is non-existent. As such, the combined fund treatment of the Comptroller is a precursor of the private sector approach to accounting that is viewed as a long-term goal of GASB (Meyer, Kiser, Whitaker & Gavin, 1993).

Table 1 arrays an assessment of the impact of one year's worth of asset depletion on the combined balance sheet data. This assessment is based on a capital replacement/refurbishment cycle of 30 years. This benchmark is based on New York's infrastructure replacement/refurbishment cycle prior to the 1974 fiscal crisis (Ukeles, 1982). Operating on the assumption that New York's woes started at a time of fiscal retrenchment for many other governments, this benchmark may be thought of as an ideal that is no longer achievable in many communities (New York, for example is now on a 200 year cycle) but represents "best practice" in less stringent fiscal environments.

This 30 year average (FIX/30) may also be thought of as a weighted average useful working life of all fixed assets, including buildings that may be useful for 50 years, and large scale computers or electrical appliances that may functionally or technologically become obsolete in a decade. Stated succinctly, the findings in Column 1 show the impact of one-thirtieth of the asset base being depleted. Column 2 (FIX/OUT)

TABLE 1
Fixed Assets Depleted Over Thirty Years: One Fiscal Year Impact

COUNTY	FIX/ 30 (1)	FIX/ OUT (2)	FIX/ TAX (3)	FIX/ CHARGE (4)	FIX REV (5)	FIX EX (6)	CURRENT (7)	MOD- CURRENT (8)	FIX/ BROADRE (9)	FIX- NARROWRE (10)
ALACHUA	2901	0.22	0.66	0.16	0.01	0.02	4.63	4.49	0.02	0.35
BAKER	234	3.20	0.10	0.16	0.02	0.02	2.77	2.61	0.33	2.52
BAY	2753	0.35	0.09	0.11	0.02	0.02	6.12	5.89	0.03	0.12
BRADFORD	n/a	n/a	n/a	n/a	n/a	n/a	1.50	1.50	0.00	0.00
BREVARD	13706	0.35	0.13	0.20	0.04	0.05	3.97	3.74	0.03	0.95
BROWARD	49337	0.23	0.13	0.18	0.03	0.04	3.34	3.13	0.03	0.34
CALHOUN	225	n/a	0.16	0.00	0.05	0.05	0.42	0.24	0.04	0.06
CHARLOTTE	5303	0.31	0.12	0.15	0.03	0.04	1.26	1.15	0.04	0.06
CITRUS	2154	0.11	0.07	0.29	0.03	0.03	0.72	0.61	0.02	0.07
CLAY	1587	0.22	0.06	0.21	0.02	0.02	1.44	1.15	0.03	0.12
COLLIER	13363	1.06	0.18	0.28	0.07	0.07	3.48	3.31	0.12	3.48
COLUMBIA	11	0.49	n/a	n/a	n/a	n/a	7.75	4.94	n/a	0.11
DADE	206810	0.38	0.20	0.13	0.05	0.05	2.94	2.70	0.04	n/a
DESOTO	355	0.20	0.06	0.17	0.02	0.02	0.24	0.02	0.03	0.14
DIXIE	477	0.39	0.17	1.10	0.05	0.07	1.37	0.96	0.03	0.11
DUVAL	75379	0.35	0.25	0.09	0.03	0.05	0.01	-0.25	0.03	0.85
ESCAMBIA	10757	1.26	0.23	0.35	0.04	0.06	1.52	1.31	0.03	1.30
FLAGLER	1082	0.39	0.09	0.55	0.04	0.04	1.09	0.84	0.02	0.04
FRANKLIN	333	0.41	0.11	0.67	0.03	0.03	6.35	5.80	0.03	n/a
GADSDEN	655	0.80	0.10	0.43	0.03	0.03	2.83	2.37	0.03	0.18

TABLE 1 (Cont'd)
Fixed Assets Depleted Over Thirty Years: One Fiscal Year Impact

COUNTY	FIX/ 30 (1)	FIX/ OUT (2)	FIX/ TAX (3)	FIX/ CHARGE (4)	FIX/ REV (5)	FIX EX (6)	CURRENT (7)	MOD- CURRENT (8)	FIX/ BROADRE (9)	FIX- NARROWRE (10)
GILCHRIST	137	0.30	0.08	0.18	0.02	0.02	0.43	0.37	0.02	0.05
GLADES	593	0.92	0.16	1.13	0.06	0.06	1.56	1.41	0.07	49.43
GULF	366	0.17	0.08	0.82	0.04	0.04	1.33	1.15	0.03	0.12
HAMILTON	335	0.13	0.08	0.37	0.02	0.02	3.53	3.32	0.03	0.13
HARDEE	1202	0.23	0.18	0.81	0.06	0.05	3.49	2.75	0.03	0.45
HENDRY	587	0.29	0.05	0.23	0.02	0.02	4.52	4.38	0.02	n/a
HERNANDO	2896	0.22	0.11	0.23	0.02	0.02	3.56	3.36	0.03	0.38
HIGHLANDS	1275	0.21	0.06	0.27	0.03	0.03	1.19	0.97	0.03	0.09
HILLSBORO	38152	0.28	0.12	0.24	0.02	0.03	3.41	3.14	0.04	0.16
HOLMES	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
INDIAN RIVER	5498	0.20	0.12	0.23	0.03	0.04	2.76	2.51	0.03	0.15
JACKSON	611	0.11	0.07	0.43	0.03	0.03	12.72	11.78	0.02	0.04
JEFFERSON	1028	1.49	0.37	0.72	0.09	0.14	3.69	3.22	0.03	n/a
LAFAYETTE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LAKE	2951	0.18	0.09	0.27	0.04	0.03	3.55	3.26	0.03	0.49
LEE	20620	0.27	0.16	0.18	0.04	0.04	4.01	3.83	0.03	0.11
LEON	4398	0.13	0.08	0.40	0.02	0.03	1.11	0.91	0.02	0.06
LEVY	384	0.22	0.07	0.20	0.01	0.02	2.38	2.23	0.02	0.04
LIBERTY	76	0.36	0.10	0.13	0.01	0.01	1.09	1.07	0.02	0.13
MADISON	421	0.35	0.13	0.77	0.04	0.04	1.66	1.16	0.02	0.04

TABLE 1 (Cont'd)
Fixed Assets Depleted Over Thirty Years: One Fiscal Year Impact

COUNTY	FIX/ 30 (1)	FIX/ OUT (2)	FIX/ TAX (3)	FIX/ CHARGE (4)	FIX REV (5)	FIX EX (6)	CURRENT (7)	MOD- CURRENT (8)	FIX/ BROADRE (9)	FIX- NARROWRE (10)
MANATEE	16767	0.58	0.19	0.22	0.05	0.06	9.24	8.70	0.03	0.77
MARION	3774	0.17	0.08	0.28	0.03	0.03	1.22	1.05	0.03	0.07
MARTIN	4809	0.19	0.09	0.24	0.04	0.04	1.34	1.11	0.03	0.09
MONROE	3200	0.16	0.05	0.19	0.02	0.02	3.84	3.74	0.02	0.14
NASSAU	821	0.10	0.06	0.14	0.01	0.02	1.90	1.83	0.02	11.56
OKALOOSA	5941	0.14	0.27	0.23	0.05	0.04	1.37	1.12	0.03	0.09
OKEECHOBEE	940	0.41	0.10	0.48	0.02	0.04	3.41	2.50	0.02	0.09
ORANGE	37759	0.35	0.11	0.29	0.03	0.03	7.08	6.87	0.03	0.17
OSCEOLA	2380	0.11	0.05	0.20	0.01	0.01	6.98	6.80	0.01	0.02
PALM BEACH	59145	0.30	0.17	0.23	0.05	0.04	4.15	3.88	0.03	1.39
PASCO	13371	0.37	0.19	0.26	0.05	0.05	4.74	4.46	0.04	0.87
PINELLAS	34395	0.23	0.13	0.22	0.04	0.04	1.88	1.62	0.03	0.13
POLK	7696	0.31	0.09	0.12	0.02	0.02	0.90	0.69	0.02	0.06
PUTMAN	1139	0.29	0.07	0.13	0.02	0.03	1.21	1.02	0.03	0.06
ST JOHNS	3903	0.32	0.13	0.19	0.04	0.04	4.29	4.06	0.03	5.50
ST. LUCIE	10054	0.35	0.18	0.42	0.05	0.06	2.00	1.71	0.04	0.37
SANTA ROSA	1023	0.31	0.06	0.22	0.02	0.02	2.12	1.98	0.02	0.05
SARATOSA	18566	0.36	0.21	0.41	0.06	0.07	5.09	4.71	0.03	n/a
SEMINOLE	8060	0.17	0.11	0.29	0.03	0.03	6.07	5.82	0.02	n/a
SUMTER	1638	1.06	0.26	1.31	0.08	0.09	1.63	0.94	0.03	1.24

TABLE 1 (Cont'd)
Fixed Assets Depleted Over Thirty Years: One Fiscal Year Impact

COUNTY	FIX/ 30 (1)	FIX/ OUT (2)	FIX/ TAX (3)	FIX/ CHARGE (4)	FIX REV (5)	FIX EX (6)	CURRENT (7)	MOD- CURRENT (8)	FIX/ BROADRE (9)	FIX- NARROWRE (10)
SUWANNEE	489	0.15	0.09	0.21	0.02	0.03	2.23	2.06	0.02	0.07
TAYLOR	422	0.28	n/a	n/a	n/a	n/a	4.22	3.98	0.03	n/a
UNION	524	n/a	0.37	2.45	0.12	0.11	1.09	0.66	0.03	3.27
VOLUSIA	9773	0.15	0.10	0.19	0.03	0.03	2.90	2.70	0.03	0.63
WAKULLA	46	n/a	n/a	n/a	n/a	n/a	7.13	5.96	n/a	n/a
WALTON	352	n/a	n/a	n/a	n/a	n/a	4.79	4.34	n/a	n/a
WASHINGTON	325	0.43	0.11	0.67	0.05	0.04	2.11	1.46	0.03	0.39
Mean	11197	0.46	0.13	0.38	0.04	0.04	3.08	2.73	0.04	1.64
Median	1896	0.3	0.11	0.23	0.03	0.03	2.77	2.37	0.04	0.14
Standard Deviation	28929	0.46	0.07	0.32	0.02	0.02	2.41	2.23	0.04	6.8

restates Column 1 as a percent of what the Comptroller General terms "Capital Outlay," across all funds.

The data in Figure 1 suggest that depleting one-thirtieth of a county's asset stock would have minimal impact on current income or balance sheets. The median values of 0.11 (FIX/TAX) and 0.23 (FIX/CHARGES) for taxes and charges, in Columns 3 and 4, suggest that depletion as a current expense is significant but not overwhelming if viewed as a portion of these prime revenue components. Findings in Columns 5 and 6 suggest FIX/30 as a percentage of all revenues and expenditures is minimal. One year of depletion constitutes a median value of two percent of total revenues (FIX/REV) and expenditures (FIX/EX).

In terms of balance sheets, the median value of the quick ratio (CURRENT) in Column 7, without depletion is 2.77. If we factor in depletion, as in Column 8, the median quick ratio drops to 2.37 (MODCURRENT). Column 9 indicates that year's worth of depletion diminishes a broadly based definition of reserves (FIX/BROADRE), by about four percent, and about fourteen percent of cash and other liquid assets (FIX/NARROWRE), as shown in Column 10.

The numbers in this table could be interpreted in both a positive and negative vein. On the positive side, the dollar value represented by FIX/30 in Column 1 does not appear to be that significant a drain on current revenues. Nor does it appear to be a large amount of reserves, broadly or negatively defined. On the negative side, the amount median ratio of 0.30 for FIX/OUT suggests that capital outlays for Florida's 67 counties are nowhere close to a 30 year replacement cycle--if that were the case, it should be in the vicinity of 0.03. One could argue that this confirms the unrealistic nature of an assumed 30 year replacement cycle--or it could represent a realistic appraisal of the perpetual shortfall that most jurisdictions face in refurbishing their physical plant (Steiss, 1989).

The mean and median values in Table 1 mask significant inter-jurisdictional differences as reflected in the very large standard deviations for some of the categories. For example, six of Florida's "Megacounties," (Broward, Dade, Hillsborough, Orange, Palm Beach, and Pinellas) appear to be relatively unscathed by effecting this treatment of depletion. But the seventh, Duval (Jacksonville) appears to be hard hit, with a modified

"quick ratio" (current assets to current liabilities) that is mildly negative. Similarly, some of the Northern Florida "Panhandle" counties such as Santa Rosa, Jefferson, and Franklin, are relatively unaffected by recording depletion, while others, such as Calhoun, Union, and Washington are more strongly impacted, on either revenues or balance sheets. In the aggregate, however, recording one year of asset depletion on the balance sheet does not constitute a General Motors or Bethlehem Steel, FASB 106 type-devastation for most of Florida's Counties.

This is not case when one adopts a more stringent depletion reporting stance. Findings in Table 2 reflect the impact of 10 years worth of depletion (FIX10) being recorded in the current fiscal year. This could be interpreted in any of several ways. It could implicitly reflect a mandated accrual of less than 10 years worth of depletion under an assumption that replacement costs will be higher than the recorded historical costs. This could represent a GASB mandate to implement a "tableau style" accounting for fixed assets within a time certain. Or lastly, it could reflect a GASB determination that within a time certain, jurisdictions must set aside a given sum within a hybrid "capital replenishment account" equal to a proportion of historical capital outlays with or without a replacement cost inflation factor. The common thread to this hypothetical illustration is that GASB would require that jurisdictions treat the reality of future asset depletion within some form of accrual--in this case, 10 undiscounted years out of an assumed 30 year cycle. Regardless of interpretation, results in Table 2 are radically different from those in Table 1.

The median value of this 10 year accrual is 3.01 times capital outlays for all funds (FIX10/OUT). The median figures of 1.05 and 2.35 for taxes (FIX/TAX) and charges (FIX/CHARGE) suggest that this degree of accrual would amount to 105 percent of taxes (predominantly property) and 235 percent of charges of a typical Florida county's tax and user charges, respectively. The latter may be the more interesting from a political vantage. Raising ad valorem or utility taxes may be politically if not legally difficult in many counties (many of Florida's Panhandle Counties and Dade among the urban counties, are at or near the constitutional 10 mill cap).

TABLE 2
Fixed Assets Depleted Over Thirty Years: Ten Year Accrual of Liabilities

COUNTY	FIX/ 10 (1)	FIX10/ OUT (2)	FIX10/ TAX (3)	FIX10/ CHARGE (4)	FIX10/ REV (5)	FIX10/ EX (6)	TENCURRE (7)	TENFIX/ BROADRE (8)	TENFIX/ NARROW (9)
ALACHUA	29011	2.15	0.56	1.58	0.14	0.17	3.19	0.18	3.48
BAKER	2339	32.05	1.01	1.56	0.23	0.22	1.20	3.32	25.15
BAY	27530	3.53	0.86	1.10	0.16	0.16	3.80	0.31	1.18
BRADFORD	n/a	n/a	n/a	n/a	n/a	n/a	1.50	0.00	0.00
BREVARD	137057	3.47	1.31	2.00	0.41	0.46	1.72	0.30	9.49
BROWARD	493370	2.27	1.30	1.75	0.28	0.35	1.24	0.30	3.45
CALHOUN	2252	140.73	1.60	0.02	0.51	0.49	-1.34	0.29	3.14
CHARLOTTE	53029	3.11	1.22	1.47	0.35	0.36	0.12	0.35	0.58
CITRUS	21545	1.10	0.68	2.94	0.32	0.28	-0.31	0.25	0.66
CLAY	15870	2.18	0.61	2.13	0.23	0.23	-1.44	0.25	1.20
COLLIER	133632	10.60	1.81	2.85	0.66	0.67	1.70	1.18	34.83
COLUMBIA	112	4.88	n/a	n/a	n/a	n/a	-20.33	n/a	1.12
DADE	2068098	3.85	2.04	1.31	0.46	0.48	0.56	0.36	n/a
DESOTO	3550	2.01	0.58	1.65	0.20	0.21	-1.99	0.26	1.43
DIXIE	4768	3.93	1.74	11.04	0.46	0.69	-2.71	0.25	1.13
DUVAL	753791	3.52	2.46	0.93	0.34	0.46	-2.61	0.25	8.51
ESCAMBIA	107566	12.63	2.25	3.47	0.45	0.59	-0.62	0.31	12.96
FLAGLER	10822	3.95	0.86	5.52	0.37	0.38	-1.42	0.18	0.41
FRANKLIN	3325	4.11	1.05	6.66	0.33	0.34	0.90	0.26	n/a
GADSDEN	6547	8.02	0.95	4.32	0.32	0.32	-1.72	0.34	1.83

TABLE 2 (Cont'd)
Fixed Assets Depleted Over Thirty Years: Ten Year Accrual of Liabilities

COUNTY	FIX/ 10 (1)	FIX10/ OUT (2)	FIX10/ TAX (3)	FIX10/ CHARGE (4)	FIX10/ REV (5)	FIX10/ EX (6)	TENCURRE (7)	TENFIX/ BROADRE (8)	TENFIX/ NARROWR (9)
GILCHRIST	1375	3.02	0.83	1.82	0.20	0.20	-0.14	0.24	0.46
GLADES	5931	9.20	1.57	11.25	0.62	0.61	0.08	0.71	494.25
GULF	3661	1.70	0.82	8.21	0.39	0.37	-0.48	0.26	1.18
HAMILTON	3350	1.28	0.79	3.68	0.21	0.22	1.37	0.28	1.32
HARDEE	12020	2.27	1.81	8.07	0.59	0.49	-3.90	0.28	4.46
HENDRY	5869	2.92	0.55	2.29	0.19	0.20	3.04	0.19	n/a
HERNANDO	28958	2.24	1.07	2.35	0.23	0.25	1.52	0.30	3.78
HIGHLANDS	12750	2.12	0.62	2.71	0.30	0.30	-0.98	0.26	0.89
HILLSBORO	385121	2.80	1.18	2.43	0.23	0.34	0.67	0.37	1.64
HOLMES	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
INDIAN RIVER	54977	2.04	1.19	2.31	0.35	0.43	0.22	0.28	1.47
JACKSON	6113	1.07	0.66	4.29	0.30	0.26	3.34	0.24	0.43
JEFFERSON	10278	14.94	3.69	7.21	0.88	1.29	-1.06	0.28	n/a
LAFAYETTE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LAKE	29512	1.78	0.89	2.66	0.37	0.34	0.68	0.26	4.94
LEE	206201	2.65	1.61	1.84	0.38	0.44	2.20	0.30	1.13
LEON	49375	1.27	0.82	4.01	0.24	0.30	-0.96	0.22	0.64
LEVY	3836	2.19	0.66	1.96	0.14	0.19	0.81	0.16	0.44
LIBERTY	759	3.58	1.01	1.30	0.14	0.14	0.92	0.23	1.31
MADISON	4208	3.48	1.30	7.69	0.39	0.42	-3.36	0.18	0.42

TABLE 2 (Cont'd)
Fixed Assets Depleted Over Thirty Years: Ten Year Accrual of Liabilities

COUNTY	FIX/ 10 (1)	FIX10/ OUT (2)	FIX10/ TAX (3)	FIX10/ CHARGE (4)	FIX10/ REV (5)	FIX10/ EX (6)	TENCURRE (7)	TENFIX/ BROADRE (8)	TENFIX/ NARROWR (9)
MANATEE	167665	5.77	1.93	2.15	0.53	0.61	3.87	0.27	7.67
MARION	37737	1.68	0.82	2.79	0.28	0.28	-0.46	0.26	0.67
MARTIN	48088	1.87	0.92	2.39	0.38	0.40	-0.97	0.26	0.92
MONROE	32002	1.63	0.54	1.93	0.17	0.23	2.80	0.16	1.38
NASSAU	8208	1.05	0.62	1.37	0.07	0.18	1.19	0.24	115.61
OKALOOSA	59410	1.36	2.69	2.27	0.52	0.43	-1.15	0.28	0.95
OKEECHOBEE	9403	4.13	1.02	4.80	0.23	0.36	-5.63	0.23	0.92
ORANGE	377593	3.48	1.14	2.91	0.27	0.32	4.95	0.31	1.71
OSCEOLA	23800	1.13	0.45	2.03	0.08	0.14	5.12	0.08	0.16
PALM BEACH	591455	3.01	1.68	2.34	0.45	0.45	1.45	0.34	13.93
PASCO	133710	3.71	1.90	2.59	0.49	0.48	1.93	0.37	8.66
PINELLAS	343953	2.27	1.28	2.25	0.39	0.42	-0.73	0.29	1.28
POLK	76955	3.12	0.91	1.21	0.20	0.25	-1.24	0.24	0.58
PUTMAN	11389	2.88	0.69	1.31	0.24	0.25	-0.76	0.25	0.57
ST JOHNS	39031	3.22	1.27	1.95	0.41	0.41	1.91	0.35	54.97
ST. LUCIE	100540	3.49	1.84	4.20	0.53	0.63	-0.87	0.36	3.71
SANTA ROSA	10232	3.14	0.60	2.17	0.16	0.17	0.77	0.20	0.49
SARATOSA	185656	3.60	2.13	4.08	0.62	0.66	1.32	0.28	n/a
SEMINOLE	80595	1.74	1.06	2.89	0.33	0.35	3.57	0.25	n/a

TABLE 2 (Cont'd)
Fixed Assets Depleted Over Thirty Years: Ten Year Accrual of Liabilities

COUNTY	FIX/ 10 (1)	FIX10/ OUT (2)	FIX10/ TAX (3)	FIX10/ CHARGE (4)	FIX10/ REV (5)	FIX10/ EX (6)	TENCURRE (7)	TENFIX/ BROADRE (8)	TENFIX/ NARROWR (9)
SUMTER	16380	10.64	2.61	13.14	0.85	0.86	-5.30	0.32	12.41
SUWANNEE	4887	1.47	0.87	2.13	0.24	0.25	0.49	0.19	0.67
TAYLOR	4219	2.79	n/a	n/a	n/a	n/a	1.74	0.31	n/a
UNION	5235	121.75	3.73	24.46	1.16	1.12	-3.20	0.33	32.72
VOLUSIA	97726	1.46	0.98	1.95	0.28	0.28	0.96	0.29	6.33
WAKULLA	455	n/a	n/a	n/a	n/a	n/a	-4.54	n/a	n/a
WALTON	3522	n/a	n/a	n/a	n/a	n/a	0.26	n/a	n/a
WASHINGTON	3251	4.27	1.15	6.69	0.45	0.44	-4.38	0.29	3.87
Mean	11799	8.12	1.28	3.77	0.36	0.4	-0.17	0.34	5.35
Median	18963	3.01	1.05	2.35	0.33	0.35	0.26	0.28	1.38
Standard Deviation	289350	23.18	0.71	3.84	0.19	0.44	3.43	0.42	8.10

These figures suggest that enhanced fixed asset set-asides via increased user charges may not be much easier, especially since elected officials are particularly sensitive to their non-deductibility on federal income taxes (Oliva, 1993).⁽⁷⁾ In general, recording this amount of depletion constitutes 33 and 35 percent respectively, of median Florida County revenues (FIX/REV) and expenditures (FIX/EX).

Balance sheet deterioration in Table 2 is draconian. The new quick ratio median value of 0.26 (MODCURRENT) suggests that assets and liabilities are essentially squared using this approach. Twenty-six counties have negative net worth under this degree of accrual. While 10 years of depletion decreases generally defined reserves by approximately 28 percent (FIXBROADRE), the median ratio of accrual to liquid assets such as cash and cash equivalents of 1.35 (FIX/NARROWRE) suggests that this level of recognition would deprive the typical county of all its liquidity. On face, this is clearly untenable.

The vast differences between jurisdictions speaks to the dilemma that GASB or any other body would have in implementing accrual accounting for asset depletion or any other phase of financial management such as pensions or long term debt. Quite clearly, many jurisdictions would face a calamitous loss of equity--when viewed from a private sector vantage. On the other hand, some jurisdictions have sufficient capital on hand to better withstand such an implementation.

CONCLUSION

The accrued treatment of asset depletion on the balance sheet raises interesting philosophical questions. One that comes to mind immediately is whether or not the notion of "ongoing concern" applies to government entities, and if this allows them to take a less stringent approach to accruals than their private sector entities? Many argue that cities or states will not go bankrupt if they fail to meet infrastructural requirements. They will instead deteriorate in terms of economic base, and will thus be penalized by outflows of human and physical capital to more attractive jurisdictions. This suggests that enlightened city officials will invest in their physical plant regardless of accounting necessities, in order to maintain their standing in a competitive federal order. Thus, mandatory

accrual accounting of fixed assets would not be necessary to foster long-term economic growth in a given jurisdiction.

Notwithstanding the demands of a competitive fiscal federalism, another impetus to instituting mandatory accrual of physical asset depletion relates to a higher order philosophical question: What is the role of government in a market economy? The traditional rationale entails items such as income distribution, externalities, and protection of intellectual and physical property. A less frequently cited reason for government intervention is that of lengthening citizens' time horizons (Harrison, 1992; Musgrave & Musgrave, 1980). From this vantage, government activity should foster behaviors that lead to savings, investment, and long-range "value-added" behaviors.

Changes in accounting systems that obligated jurisdictions to acknowledge the need for replenishment of their respective capital stocks could be viewed in this vein. Unfortunately, years of cutback management that find state and local governments with their lowest reserves in history (McCollough & Frank, 1992; Pagano, 1993) may pose a serious stumbling block to the implementation of accrual accounting in this arena. Many practitioners--and politicians--may realize that it is to their benefit to accrue fixed asset depletion as it relates to long-term economic well-being. Unfortunately, contemporary taxpayers are less tolerant of additional burdens than the investment community was of secondary stock offerings of General Motors or Bethlehem Steel.

Thus, a compelling research item for public financial management in the coming decade may be the development of a schematic for implementation of accrual accounting in a number of areas such as long-term debt, pensions, and fixed assets. In their deliberations, researchers and practitioners will need to create accounting mechanisms that balance the needs for long-term economic renewal and intergenerational equity with short-term concerns for political and economic feasibility.

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NOTES

1. The term "depreciation" as applied to assets may be interpreted in four ways (Glautier & Underdown, 1976: 128-131):
 - a. a fall in price as related to market process unrelated to technological processes;
 - b. a fall in value due to obsolescence or reduced cash flow derived from the productive capacity of an asset;
 - c. depreciation as physical deterioration related to the "using up" of an asset; and
 - d. cost allocation of that portion of an asset's value which will not be recovered when it is taken out of service.

While not stated explicitly, the Government Accounting Standards Boards preference for the term "asset depletion" appears to be based on the belief that its use restricts discussion to definitions c and d. This is consistent with the 1987 Discussion Memorandum's contention that parks, treasures, and other historical structures that could conceivably appreciate should not be subject to disclosure or consideration. It is also consistent with Attmore, Miller, and Fountain's (1989), disavowal of the term depreciation as being inapplicable to public entities, which are either unconcerned with market pricing for product or assets under management, or are not in a position to concern themselves with the technological status of their fixed assets. Hence the author has adopted GASB terminology for this paper to be consistent with the more narrowly-defined asset "using up" and cost allocation themes.

2. Thai (1992) denotes the following four critical differences between government and private sector accounting:
 - a. the use of funds--which do not exist in private accounting;
 - b. the above-referenced ambiguity of fixed assets and depreciation--in the private sector, assets must be placed on the balance sheet and depreciated;

- c. consistent with (a) above, the absence of interfund transfers which often confuse analysis and hide shoddy financial practice; and
 - d. the public sector's use of encumbrance and modified accrual accounting, which are non-existent in the private.
3. Leonard (1985) contends that elected officials and civil servants are reluctant to deal with the true costs associated with asset depletion since this would raise the cost of service delivery. Civil servants might be leery of true costing out of asset depletion, particularly in an era of cutback management. Absorbing true asset depletion costs may result in painful tradeoffs between asset refurbishment and personnel costs (i.e., layoffs).
 4. General Motors and Bethlehem Steel have taken advantage of the currently buoyant stock market to bolster their balance sheets through significant secondary offerings of their common stock.
 5. Data for this study were taken from the State of Florida, *Local Government Financial Report: Fiscal Year 1991-92*. This report is consolidated from the annual financial reports which are submitted to The Department of Banking & Finance as required by state law.
 6. One could argue that if asset depletion is already being accounted for in enterprise and internal service funds, focus should be on the general fund, where it is not utilized. Using this reasoning, typical general fund sources, such as ad valorem or utility tax revenues, might be expected to bear the brunt of any efforts at capital replenishment mandated as a result of accounting changes.
 7. It is commonplace to think of user charges as a savior form of local and state revenue that is both economically efficient and relatively unencumbered by restrictions on levy, as is the property tax. However, recent empirical evidence (Oliva, 1993) suggests that non-deductibility of revenue sources such as the sales tax or user charges plays a vital role in local officials' configuration of their revenue portfolio. Local officials--particularly elected ones--are acutely aware of the fact that no portion of a one dollar increase in a user fee or sales tax is deductible on the federal tax return. Contrariwise, a

dollar increase in ad valorem is at least partially offset by greater tax deductibility for the typical voter, who is an itemizer.

This "tax pricing" effect suggests that user charges may not be a potential fiscal lifesaver in the event that revenues must be raised to replenish balance sheets or to fund a capital asset replenishment account. This would be particularly true if, as noted in Tables 1 and 2, accrued depleted assets represent a cost stream of two to three hundred percent of annual user fees in a typical jurisdiction. Thus, other sources, such as utility, ad valorem, or income levies, would probably have to bear the brunt of asset replenishment, given the evidence in this pro forma.

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