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Hybrid Earnings Management in the Pre- and Post-SOX Eras

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Abstract:

Purpose: *This paper examines a fourth method of earnings management: the hybrid method.*
Design/Methodology/Approach: *The hybrid method uses a combination of the three well-documented earnings management methods of accrual-based, real activity, and classification shifting to manipulate earnings for the benefits of the management and the company. The manipulated number is presented in the income statement as a single line item such as pension expense or income. The hybrid method is more deceptive and harder to detect outright because it is more complex and often apparently GAAP compliant.*
Findings: *The hybrid earnings management method is potentially even more harmful than the three well-known methods, causing severe misrepresentation to the economic reality of a company.*
Practical Implications: *Market participants and other financial data users should be on alert for the hybrid method which appears GAAP compliant but distorts the earnings picture of a company.*
Originality value: *This paper is the first to suggest and investigate the fourth earnings management method - the hybrid method - and opens the door for more research on this pervasive, damaging, and deceptive method of earnings management.*

Keywords: *Earnings management, hybrid earnings management, pension accounting, SOX.*

JEL classification: *M41.*

Paper Type: *Research case study.*

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1. Introduction

There is a rich literature documenting and analyzing the three methods of earnings management: accrual-based, real activity, and classification shifting. This paper argues that there is a fourth method – the hybrid method – which exploits more than one of the three above mentioned methods and mixes them into one single line expense or income in the income statement. Typical examples are pension expense (income), income tax expense, and restructuring costs.

The hybrid method is different from the other three methods of earnings management in several distinct ways. First, the hybrid method is a combination of two or even all three of the earnings management tools. Second, the hybrid method, because of its hybrid nature, can impact on a company's income statement not only the current year, but also the future years. At the same time, it can also impact a company's current and future cash flows. Third, not like classification shifting which does not affect the bottom-line net income, hybrid earnings management can and does affect the overall earnings of a company, and very often in a big way. And fourth, the hybrid method is often much more complex than any one of the other three methods alone and totally GAAP compliant. You may often feel it not quite right, but it is deceptive and not easy to detect or challenge.

One example is pension expense or income. The five components of pension expenses is a mixture of potential hotbed for accrual-base earnings management, real activity earnings management, and earnings management using classification shifting. The complexity of pension accounting often makes it difficult to understand even for accounting professionals and financial analysts, let alone the general investment public and the laymen. To understand how it works is not easy, to detect possible manipulations and challenge it is a daunting task. As Sir David Tweedie, former IASB Chairman, once said "Pension costs are one of the most complex and obscure areas of accounting." (IASB, 2004)

This study complements the existing earnings management literature by suggesting a fourth method of earnings management – the hybrid method. It sets the stage for more studies along the line of hybrid earnings management in cases such as restructuring costs and income tax expenses. Each of them is complicated in structure and deceptive in nature. They are seemingly GAAP-compliant, and highly significant in impacting a company's reported net income.

This paper proceeds as follows. Section 2 provides background review for earnings management - accrual-based, real activity, classification shifting, and the newly-coined hybrid method. Section 3 discusses how the hybrid method is employed in IBM's pension accounting in 2001 pre-SOX. Section 4 explores the impact of SOX Act of 2002 on earnings management in general and hybrid earnings management and IBM pension accounting in particular post-SOX. Section 5 is the summary.

2. Earnings Management

Accrual-based earnings management is by far the most popular tool for management to manipulate the bottom line to meet or beat expectations. Management enjoys great flexibility in choosing what to do in a wide variety of areas in regard to their financial reporting such as:

1. What depreciation method to use for each long-term asset.
2. Whether to lower or raise their estimation of bad debt expense for the current year.
3. Choosing inventory valuation methods and its write-downs.
4. Changing pension related assumptions to report higher or lower pension expense or income.
5. How to amortize intangibles and test good will impairments, and
6. The classification of investments and the reporting of gains and losses as realized or not.

The list can go on and on (Healy and Wahlen 1999). Real activity earnings management refers to the manipulation of real operational activities to achieve short-term financial goals, which will more likely hurt than enhance a company long-term interest (Roychowdhury, 2006). Real activity earnings management can be fully executed within the generally accepted accounting principles (GAAP) without fearing the scrutiny of auditors or regulators (Cohen, Dey, and Lys, 2008; Kim, Lisic, and Pevzner 2010). The wide-ranging use of real activities manipulation to manage earnings instead of or in addition to accrual-based manipulation often happen around the following, according to Cohen Dey, and Lys (2008):

1. Sales manipulation that is, accelerating the timing of sales and/or generating additional unsustainable sales through increasing price discounts or more lenient credit terms.
2. Reduction of discretionary expenditures such as R&D, SGA and advertising expenditures to cut current period reported expenses, which will boost current period earnings.
3. Increasing production to lower reported Cost of Goods Sold per unit. With higher production levels, fixed overhead costs are spread over a larger number of units, lowering fixed costs per unit. As long as the reduction in fixed costs per unit is not offset by any increase in marginal cost per unit, total cost per unit declines. This implies that reported COGS is lower, and the firm reports better operating margins.

There are more real activity earnings managements not often investigated, such as:

1. The manipulation of assumptions for pension accounting regarding rates of expected return and discount rates to boost or reduce the pension expense or income, which will be examined in this paper.

2. Terminating the existing pension plan and setting up a new one which will affect a company's cash flow and reported income for current and future periods.
3. Disposing long-term assets, such as land or property, which were acquired quite a while ago at a much lower price, to reap cash and gains.
4. Sale and lease back of property, plant, and equipment to collect needed cash and possibly recording a gain to boost earnings.

Earnings management through classification shifting has attracted a lot of interest especially after McVay (2006). McVay (2006, p. 501) defines classification shifting as "the deliberate misclassification of items *within* the income statement". By shifting expenses down or revenues up the income statement, classification shifting tries to maximize a company's performance and presents a picture to investors and stakeholders that is distorted from its economic reality. Classification shifting is different from accrual-base earnings management and real activity earnings management as it does not affect GAAP net income – it simply categories it in a way that makes its financial performance more attractive to financial analysts and all financial statement users. Classification shifting also does not alter past or future years' earnings as accrual-base earnings management or real activity earnings management did or will.

This paper argues that there is a fourth method of earnings management – the hybrid earnings management which includes more than one of the well-known earnings management tools mentioned above: accrual-based, real activity, and classification shifting. Pension is a typical case for hybrid earnings management. According to GAAP, pension expense has five components:

+	Service Cost
+	Interest Cost
-	Expected Return on Plan Assets
+	Amortization of Prior Service Cost
+/(-)	Amortization of Net Losses/(Gains)
=	Net Pension Expense (Income)

Service cost, interest cost, and expected return on plan assets (PA) are the three major parts of pension expense. Service cost is estimated by actuaries. For interest cost, the management of a company have the discretion to pick a higher or lower discount rate and apply it on a company's projected benefit obligation (PBO). For the rate of expected return on plan assets, the management can decide on an expected rate of return (ERR) they prefer and manipulate the expected return on its pension plan assets. If a company's projected benefit obligation (PBO) and pension plan asset are small, the impact can be insignificant.

If, on the contrary, a company has projected benefit obligations and pension plans in the tens of billions of dollars, the difference can be hundreds of millions, even billions, of dollars and reflected in its reported earnings.

IBM belongs to the latter. IBM had projected benefit obligation of $58.689 billion and plan asset of $67.427 billion at the beginning of 2001. A reduction of discount rate and a raise of expected rate of return by half a percent each will result in a boost of net income of $631 million for IBM in 2001! That number jumps up to $923 million for 2017, as IBM's projected benefit obligation and plan asset rose to $97.199 billion and $87.425 billion respectively at the beginning of 2017.

IBM's pension accounting management is not just accrual-base, it has real cash effect. For one thing, the resulted pension expense or income will contribute to determine the funding levels IBM has or would like to make. On the other hand, because of the big discrepancy of the expected rate of return, the discount rate on projected benefit obligations, and IBM's cost of long-term debt, IBM is motivated to overfund or underfund its pension assets, so as to control the reporting of its pension cost as an expense or income and how much, and to manipulate its reported earnings year after year.

IBM's pension expense or pension income is also a classification shifting maneuver. Pension is an expense, a part of a company's cost of conducting its business. In IBM's case, pension becomes an income, a major contributor to its income from operations and net income. The trick is that IBM has a huge pension plan asset and by manipulating its rate of return, IBM generated huge amount of expected return, more than enough to offset its service cost and interest cost. Is expected return on plan assets a part of a company's operation?

Obviously not! IBM played this classification shifting game legally for decades, which will have to change after 2017 FASB's new rules regarding the presentation of pension in the income statement. In the following sections, we will reexamine IBM's pension accounting to see how IBM used the hybrid earnings management method to manipulate its earnings in 2001 pre-SOX and from 2003 to 2017 post-SOX.

3. Hybrid Earnings Management: IBM Pension Accounting Pre-SOX

IBM's annual report of 2001 caused quite a stir in Wall Street, mainly because of the way it reported its pension income and the big impact of its pension income on IBM's earnings for the year. Here are excerpts from an article in the Wall Street Journal (Bulkeley, 2002).

"Pensions are a huge income item for IBM. The company disclosed in its recently released annual report that it recorded $1.45 billion in pension income from its U.S. and foreign plans in 2001, accounting for 13 percent of its $10.95 billion in pretax

profit. That was up 14.5 percent from the prior year's $1.27 billion, when pensions produced 11 percent of pretax profit. This year, the number will come down, analysts agree."

"The company gets to those numbers by taking the assumed rate of return on the $61 billion it has in pension funds and subtracting the estimated pension payout and service costs. Lower the assumed rate, and the amount that falls to the bottom line also falls unless costs make a huge swing downward which isn't likely."

"... Steven Milunovich, who follows IBM for Merrill Lynch, says the decline in pension income "will just about be offset by the fact they don't have to amortize goodwill"—or the excess over book value paid for acquisitions—anymore under a new accounting standard. "So it won't have an effect."

"... IBM's overall pension-fund assets declined 12% last year, even though IBM's official assumption was that they would increase 10%. That drop, coupled with benefits paid during the year, reduced IBM's "cushion" of excess funds above expected obligations to just $686 million from a huge $10.74 billion the year before. (A large surplus increases the likelihood that a company will enjoy income from its pension plan, but it isn't always necessary)."

"Still, if the market turns down again, as I think, then you could be in a position where IBM has to start recording pension as an expense," says Fred Hickey, editor of High Tech Strategist, a Nashua, N.H., investment newsletter."

"IBM says the Internal Revenue Service annually reviews corporate pension funds and decrees whether they are underfunded. "Given current market conditions, we see no need to fund the plan for the foreseeable future."

"Still, reductions in pension income could continue in future years. IBM had raised its expected return on the pension fund to 10% from 9.5% in 2001 because actual returns had continually exceeded expectations. But in its annual report it disclosed that after last year's decline, the 10-year average return was 10%."

Did IBM use pension to manipulate its earnings of 2001? How much did IBM's pension income really account for its operating income (13 percent?) and affect its bottomline net income of 2001? Was IBM's accounting for pension aggressive or conservative compared with S&P 500 firms and its own past practices and why, in year 2001? Did IBM do anything illegally, non-GAAP?

Let's look at the expected rate of return and discount rates first. The following Table 1 lists the discount rates and expected rate of return used by IBM in its pension accounting for 2000, 2001, and 2002. The stated rates at the end of each year were the rates to be used in the following year.

Table 1. *IBM's discount and expected rate of return*

Weighted-Average Actuarial	**U.S. Plans**			**Non-U.S. Plans**		
Assumptions, December 31:	**2001**	**2000**	**1999**	**2001**	**2000**	**1999**
Discount rate	7.0%	7.25%	7.75%	4.5–7.1%	4.5–7.1%	4.5–7.3%
Expected rate of return	10.0%	10.0%	9.5%	5.0–10.0%	5.0–11.0%	6.0–10.5%
Rate of compensation increase	6.0%	6.0%	6.0%	2.0–6.1%	2.6–6.1%	2.6–6.1%

Source: *Own study.*

For S&P 500 in 2001, "the median expected return on plan assets, the median discount rate, and the range of compensation increases were 9.2, 7.3, and between 4.5–6.0 percent, respectively." (Williams, 2005, p. 177).

We focus on interest cost and expected return on plan assets and assume that the other numbers remain the same to facilitate comparisons, for two reasons:

1. IBM has a huge projected benefit obligation of $58.689 billion, and an equally huge plan asset of $67.427 billion at the beginning of 2001. IBM's management had the discretion over the discount rate for its liability and the expected rate of return for its plan assets. Service cost is estimated by actuaries, not IBM's management.
2. Because of the sheer magnitude of IBM's projected benefit obligation and plan assets, interest cost and expected return on plan assets are in the billions of dollars while the other components including service cost are relatively small. Any seemingly little change in the rates applied to the $59 billion projected benefit obligation and $67 billion plan assets will swing its earning by the hundreds of millions of dollars.

Our analysis only applies to the U.S. Plan of IBM's pension for 2001. There are no sufficient data for the analysis of non-U.S. Plan of IBM's pension for 2001. The listed rates for the non-U.S. Plan of IBM's pension for 2001 is a range, not a specific number, and we don't have information about the average rates used by S&P 500 for non-U.S. pensions.

Table 2 shows the pension income reported by IBM in its annual report of 2001 and what the income would have been if the S&P 500 average rates were used. IBM's choice of lower discount rate reduced its interest cost relative to that of the S&P 500 firms, while IBM's higher expected rate of return increased its plan asset expected return relative to that of the S&P 500. Had IBM used the S&P 500 average rates, IBM's pension income for the U.S. Plan for year 2001would have been lower by $354 million. If a net obligation or net asset emerged due to the adoption, the obligation (asset) is amortized on a straight-line basis over the remaining service life of the employees expected to receive benefits under the plan or fifteen years, whichever is longer. The amortization amount is a component of pension cost. 2001 is the last year of the amortization process for IBM.

Table 2. *IBM 2001 Pension Expense (Income) Using S&P 500 Rates**

	IBM as Reported	**If S&P 500 Rates Used**	**Decrease (Increase)**
2001 Pension Cost (in millions)	**U.S. Plan**	**U.S. Plan**	**Col. (3)-(2)**
Discount rate	7.25%	7.30%	
Expected rate of return on plan assets	10.00%	9.20%	
Service cost	613	613	
Interest cost**	2,624	2,642	18
Expected return on plan assets***	(4,202)	(3,866)	336
Amortization of transition assets****	(140)	(140)	
Amortization of prior service cost	80	80	
Recognized actuarial losses(gains)			
Settlement gains			
Net Pension Expense (Income)	**(1,025)**	**(671)**	**354**

Notes: **All data in this paper, if not identified specifically, are from IBM's annual reports. **Interest cost using S&P rate for U.S. Plan: $2,624/7.25% x 7.30% = $2,642 million. ***Expected return on plan assets using S&P rate for U.S. Plan: $4,204/10% x 9.2% = $3,866 million. **** Transition items result when an entity moved from FAS 8 to FAS 87 standards enacted in 1985.*

Source: *Own study.*

Table 3 demonstrates the impact of IBM's pension income for the U.S. Plan when it lowered its discount rate from year 2000's 7.75% to year 2001's 7.25%, and raised expected rate of return from year 2000's 9.50% to year 2001's 10.00%. Lower discount rate leads to lower interest cost, and higher rate of return raises expected return for the plan assets. Had IBM used its own year 2000 rates, IBM's pension income for the U.S. Plan for year 2001 would have been lower by $391 million.

Table 3. *IBM 2001 Pension Expense (Income) Using IBM 2000 Rates*

	IBM as Reported	**If IBM 2000 Rates Used**	**Decrease (Increase)**
2001 Pension Cost (in millions)	**U.S. Plan**	**U.S. Plan**	**Col. (3)-(2)**
Discount rate	7.25%	7.75%	
Expected rate of return on plan assets	10.00%	9.50%	
Service cost	613	613	
Interest cost*	2,624	2,805	181
Expected return on plan assets**	(4,202)	(3,992)	210
Amortization of transition assets	(140)	(140)	
Amortization of prior service cost	80	80	
Recognized actuarial losses(gains)			
Settlement gains			
Net Pension Expense (Income)	**(1,025)**	**(634)**	**391**

Notes: **Interest cost using IBM 2000 rate for U.S. Plan: $2,624/7.25% x 7.75% = $2,805 million.**Expected return on plan assets using IBM 2000 rate for U.S. Plan: $4,204/10% x 9.50% = $3,992 million.*

Source: *Own study.*

Is expected rate of return of 10% too high at the end of 2001 right after the .com market crash? Let's see what Warren Buffet said about it:

"Now fast-forward to 2000, when we had long-term governments at 5.4%. And what were the four companies saying in their 2000 annual reports about expectations for their pension funds? They were using assumptions of 9.5% and even 10%. I'm a sporting type, and I would love to make a large bet with the chief financial officer of any one of those four companies, or with their actuaries or auditors, that over the next 15 years they will not average the rates they've postulated. Just look at the math, for one thing. A fund's portfolio is very likely to be one-third bonds, on which--assuming a conservative mix of issues with an appropriate range of maturities--the fund cannot today expect to earn much more than 5%. It's simple to see then that the fund will need to average more than 11% on the two-thirds that's in stocks to earn about 9.5% overall. That's a pretty heroic assumption, particularly given the substantial investment expenses that a typical fund incurs." (Loomis, 2001).

Yes, "heroic assumption" is how Warren Buffet dubbed it. IBM's pension accounting is also an easy suspect of real earnings management. In GAAP's formula to compute pension expense, expected return, not the actual return, of the plan asset is used. Because of the discrepancy between the cost of debt and the expected rate of return on the pension plan assets, IBM had the incentive and the means to pump more or less money into its pension plan assets based on what IBM wanted. Suppose IBM's mean cost of long-term debt was around 5% in 2001. If IBM issued bonds of $10 billion at 5% in 2001 and used all the money to fund its pension plan, IBM would have legally earned "expected" 10% return in 2002. IBM's pension income would be $500 million higher in year 2002.

IBM's pension accounting is a typical case of earnings management by classification shifting, other than the above discussed accrual-based and real activity earnings management. It is beyond any doubt that pension expense is part of the business expenses for companies to undertake their operations. Pension expense is unique in its own way, however. Pension expense has five components: service cost, interest cost, expected return on plan assets, amortization of prior service costs, and amortization of gain or loss. Is each component an operating expense and should be included in the operating section of the income statement?

1. Service cost is operational in nature because it is the cost to obtain the service of a company's employees in its daily operations.
2. So is interest cost which incurs because a company owns its employees unpaid pension benefits – the so-called projected benefit obligation. Projected benefit obligation (PBO) is simply the totality of the unpaid service costs of a company owned to its employees through their many years of services. Since service costs are operational, interest costs on the aggregate of the service costs are operational.

3. Expected return on plan assets is not operational. Plan assets are what a company contributes to a pension plan to cover future payments of projected benefit obligations. Pension plan assets are financial in nature. They have nothing to do with a company's normal daily operations. As such, the expected return on plan asset should be excluded from the operational section of the income statement and be placed in the "Others" section.
4. Amortization of prior service costs is operational since service costs are costs of business operations.
5. Amortization of gain or loss, if needed, is not clear-cut because the gains and losses can come from the difference between actual return and expected return of plan assets or the change of actuarial assumption regarding projected benefit obligations. It is usually not affecting the annual pension expense or income much due to the 10% smoothing corridor approach under GAAP.

The expected return on plan assets is essentially what the management would like to say what the market return may be. Why not use the actual return on plan assets and give investors and other financial information users the economic reality of firms? SFAS No. 87 and SFAS No. 158 allow for the expected to be used because the actual returns can be very volatile. This is done in an attempt to "smooth" the pension expense. The difference, or the unexpected gain or loss, between the expected return on plan assets and the actual return, flows into the balance sheet in the other comprehensive income account.

This approach creates two problems. First, it shifts the plan asset return to the operational section. Second, it distorts the economic reality of not only the actual return of pension plan assets but also the overall performance of a company. Earnings management through classification shifting misleads financial analysts, the stakeholders, and all financial information users in regard to a company's earnings quality and the permanence and recurring nature of a company's earnings. In general, income from operations, in contrast to "others", are of higher quality, more likely to be permanent, recurring, and thus more value relevant.

The distorting effect of expected return on plan assets on a firm's earnings quality if especially astounding when the reported returns are enormous, as in the case of IBM. Let's see what happens if we exclude IBM's expected return on plan assets from its pension income. IBM's income from operations would appear drastically lower from its annual reports as shown below. When we compute IBM's income from operations, we adjust for other (income) and expense and interest expense (Table 4).

	Income from continuing operations before income taxes
+/-	Other (income) and expense
+/-	Interest expense
=	Income from Operations

Table 4. *IBM's Income from Operations Excluding Expected Return on Plan Assets*

(in millions)	**2001**	**2000**	**1999**
Income from Operations as Reported	**10,830**	**10,873**	**11,261**
Less: Expected Return on Plan Assets	**-6,264**	**-5,944**	**-5,400**
Income from Operations Adjusted	**4,566**	**4,929**	**5,861**
% change of Income from Operations	-58%	-55%	-48%

Source: *Own study.*

Around or over half of IBM's income from operations actually comes from its expected return on pension plan assets each year from 1999 to 2001?!

What is the economic reality of IBM's income for 2001 if the actual realized return of its pension plan assets were reported? IBM's 2001 pension plan actual return is a loss of $3.964 billion, net difference between actual and expected return is $10.228 billion. In other words, the real/actual IBM's Income from Operations should be $602 million for year 2001, a 94% drop from what is reported in its financial statements to its stakeholders! (Table 5).

Table 5. *IBM's Income from Operations Using Actual Return on Plan Assets*

(in millions)	***2001***	***2000***	***1999***
Income from Operations Reported	**10,830**	**10,873**	**11,261**
Adjust Pension Income from Plan Assets Return			
Less: Expected Return booked on Plan Assets	-6,264	-5,944	-5,400
Add: Actual Return on Plan Assets	-3,964	1,199	11,581
Net Change	**-10,228**	**-4,745**	**6,181**
Income from Operations Adjusted	**602**	**6,128**	**17,442**
% change of Income from Operations	**-94%**	**-42%**	**59%**

Source: *Own study.*

If this is not earnings manipulation under GAAP, what is?

3. Hybrid Earnings Management: IBM Pension Accounting Post-SOX

The Sarbanes–Oxley Act of 2002 was enacted as a reaction to a series of major corporate and accounting scandals, such as Enron and WorldCom. These scandals cost investors billions of dollars when the affected companies collapsed, and shook public confidence to the core in the US securities markets. The bill expands responsibilities of a public corporation's board of directors, adds criminal penalties for certain misconduct by the management, and requires the Securities and Exchange Commission to create regulations to define how public corporations are to comply with the law (Wilkipedia).

Has SOX changed the behavior of corporate American in regard to earnings management? Cohen, Dey, and Lys (2008) find that earnings management increased steadily preceding the passage of SOX, then returned to the pre-SOX trend line post-

SOX. Accrual-based earnings management declined post-SOX, but real earnings management increased significantly after the passage of SOX (as measured by abnormal cash from operation, abnormal production costs, and abnormal discretionary expenses), which had been declining prior to SOX. Likewise, firms that just met earnings benchmarks used less accrual and more real earnings management post-SOX compared to similar firms before SOX (Chhaochharia and Grinstein, 2007; Lobo and Zhou, 2006).

Other studies suggest a general improvement in accounting quality taking into consideration the offset in higher real earnings management. Koh, Matsumoto, and Rajgopal (2008), and Bartov and Cohen (2009), find that firms demonstrated a lower tendency to engage in meeting or beating analysts' earnings consensus. Their evidence suggests a relative decline in the management of both earnings and expectations, even though real earnings management seems to have increased.

McVay (2006), claims that classification shifting has low cost as there is no accrual and later reversal. There is no lost revenues or future opportunity costs to be concerned with and little litigation risk since the bottomline income is not affected. Classification shifting purports to influence the appearance and perception of a company's real performance. As such, there is little incentive and motivation for management to curb it after the passage of SOX 2002. However, Li (2016) finds evidence that SOX is effective in curbing classification shifting as firms try to stay away from overstate core earnings in face of uncertainty and scrutiny post-SOX.

The hybrid method of earnings management is little affected by the enactment of SOX from what we can see in IBM pension accounting. The hybrid method does not normally cause too much attention because it is what Coates and Srinivasan (2014, p. 657) call "technically GAAP-compliant but deceptive accounting choices (as arguably was true at Lehman)".

Earnings management incurs because of the flexibility of GAAP and because management have the motivation and discretion to do it, either by accrual, or by real activity, or by misclassify the components of its income statement. The hybrid method is a combination of two or more of these techniques and can be totally GAAP, even though the numbers are so skewed and weird that it really does not make any economic sense like IBM's pension income.

Table 6 shows, post-SOX, the impact of IBM's pension expense/income on its reported operating income and net income from 2003 to 2017. Firstly, we take expected return on pension plan assets out of the operating section and demonstrate the impact of pension on IBM's operating income each year during the 15-year span. Secondly, we replace expected return on pension plan assets with actual/realized return on pension plan assets to reveal IBM's real net income each year. In other words, we assume fair value accounting for IBM in regard to the performance of its

pension plan assets and believe it gives stakeholders a better picture of the economic reality of IBM from 2003 to 2017.

Table 6. *IBM Pension Accounting 2003 - 2017*

Year	Reported Operating Income	Less: E. R. on P.A.	Adjusted Operating Income	% change	Reported Net Income	Adj: (A.R.-E.R.)	Adjusted Net Income	% change
2003	11,257	-5,931	5,326	-53%	7,583	4,412	11,995	58%
2004	12,144	-5,987	6,157	-49%	8,430	1,815	10,245	22%
2005	10,324	-5,917	4,407	-57%	7,934	4,043	11,977	51%
2006	12,829	-5,911	6,918	-46%	9,492	4,323	13,815	46%
2007	14,474	-6,203	8,271	-43%	10,418	2,589	13,007	25%
2008	17,090	-6,703	10,387	-39%	12,334	-22,655	-10,321	-184%
2009	18,189	-6,543	11,646	-36%	13,425	1,983	15,408	15%
2010	19,304	-6,478	12,826	-34%	14,833	2,640	17,473	18%
2011	21,394	-6,564	14,830	-31%	15,855	-1,432	14,423	-9%
2012	21,518	-6,346	15,172	-29%	16,604	2,992	19,596	18%
2013	19,599	-6,178	13,421	-32%	16,483	-35	16,448	0%
2014	18,532	-6,343	12,189	-34%	12,022	4,510	16,532	38%
2015	15,689	-5,872	9,817	-37%	13,190	-5,997	7,193	-45%
2016	13,105	-5,556	7,549	-42%	11,872	1,390	13,262	12%
2017	11,799	-4,339	7,460	-37%	5,753	2,993	8,746	52%

Source: *Own study.*

Excluding expected return on pension plan assets (E.R. on P.A.) from the operating section, IBM's operating income is 40% lower on average per year from 2003 to 2017. Adjusting the difference between actual/realized return and expected return (A.R.-E.R.) on pension plan assets, IBM's net income would have been 79% lower for the three years IBM's actual return on pension plan assets were negative, and 29% higher for the twelve years IBM's pension plan assets recorded actual positive returns.

FASB's 2017 rule changes to the presentation of pension cost requires that service cost be listed within income from operation while other elements outside the operation section. This is a step in the right direction to improve pension accounting, but far from enough. We suggest that:

1. In addition to service cost, interest cost, and amortization of prior service costs should be reported in the operation section of the income statement, as explained in Section 3.
2. Actual returns on the pension plan assets, instead of the so-called "expected return", should be used in computing pension expense to give investors and financial information users the economic reality of a company.
3. The expected rate of return for plan assets, should it be used in any shape or form, should be the same rate as the discount rate for the projected benefit obligations, as is stipulated by IAS 19(R). IAS 19(R) and Amendments to

IAS 19 are responsive to the concerns raised by analysts and investors on the manipulation of earnings and defined benefit obligations and plan assets, which is also a grave concern of American counterparts.

4. Summary

The hybrid method of earnings management is distinct from all the other three well-known methods – accrual-based, real activity, and classification shifting. The hybrid method is a combination of two or all three of the earnings management tools. It can impact on a company's bottom line net income not just the current year, but also the future years. It can also affect a company's current and future cash flows. The hybrid earnings management can and often do alter the overall earnings of a company, and very often in a big way. Lastly, the hybrid method is often GAAP compliant and more complex and deceptive and much harder to detect and challenge.

A typical example is IBM's pension accounting. It has enormous impact on IBM's reporting income from operations, cash flows, and bottomline net income. It has been going on very much unscathed for the past two decades as our data goes. It follows the GAAP, but it just does not sound right!

We suggest that service cost, interest cost, and amortization of prior service costs be reported in the operation section. Actual returns on the pension plan assets should be used instead of the "expected return". The expected rate of return for plan assets should be the same rate as the discount/settlement rate for the projected benefit obligations, as IFRS requires, to curb earnings manipulations and present a financial picture closer to economic reality to analysts and investors.

Our paper opens the door for more research on pension and other uses of hybrid method of earnings management such as restructuring costs and income tax expenses. Each is deceptive in nature, and most probably GAAP-compliant, but highly complex and influential by the sheer numbers on a company's reported earnings. They deserve more, not less, scrutiny!

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