

In 2011, Warren Buffett overcame his inherent mistrust of the IT (information technology) sector to invest heavily in International Business Machines (IBM). Mr Buffett might have given IBM his vote of confidence (Berkshire Hathway owns \$12.5 billion of IBM stock), but a quality of earnings analysis (QoEA) of this tech mammoth (1999-2011) does not inspire such trust.

While the recent drop in IBM's profitability can be attributed to the disappearing technology centric moats (emergence of cloud computing is a threat to the traditional software/data storage in large on-site computers, which are the mainstay of IBM), there are red flags buried in IBM's accounting statements from as far back as 1999.

The biggest issues have been around the manufacturer's margins. The company has been clubbing non-recurring, unsustainable gains against the operating SGA (selling, general and administrative) expenses. At least in one instance, it has failed to report it. In 1999, the company buried \$2.1 billion gain on the sale of Global Network, against SGA.

Other issues that have impacted IBM's earning quality are related to the aggressive pension accounting assumptions it employed for the given period. These assumptions can seriously affect the reported earnings (of a company). Historically, IBM seems to have padded its earnings (from 1994-2010) on the higher expected ROA assumption; higher the assumption, less is the employer's (in this case IBM's) contribution to it. The average expected ROA was shown as 9% while the actual average ROA came to be 4% for the same period. After factoring in this difference, the adjusted OP margin (TABLE 1) is much less than the one actually reported.

	1994	1995	1996	1997	1998	1999	2000	2001
OP Margin	7.4%	13.2%	12.2%	11.8%	11.4%	11.4%	13.1%	13.9%
OP Margin- adj pension	5.7%	11.7%	10.6%	10.0%	9.5%	9.5%	10.6%	11.4%

	2002	2003	2004	2005	2006	2007	2008	2009	2010
OP Margin	11.8%	12.8%	13.1%	13.1%	14.2%	14.9%	16.7%	19.2%	19.5%
OP Margin- adj pension	9.9%	12.2%	12.4%	12.3%	13.3%	13.9%	15.7%	18.4%	18.7%

For example, in the year 2000, the pension plan return on asset (ROA) assumption increased from 9.5% to 10%. This contributed \$221 million to earnings before income tax (EBIT).

There are other risks pertaining to the pension plans. These are, in effect, future promises and obligations, which may not be fully funded or fully recognized or are funded in way that

exposes the company to risk i.e. aggressive equity allocation.

For example, at the end of year 2008, there was a significant leverage of equity assets in IBM's pension plan assets (nearly 155% of the net worth). This introduced market risk or leverage against the net worth. During the 2008 recession when asset prices decreased across the board, the net worth took 52% hit from pension plan asset loss. This was a mark to market risk.

As far as cash flow or funding risk is concerned, though the liability was fully recognized later, there was higher cash flow (CF) funding risk if market prices decline.

Impact of Plan assets	
Changes in Shareholders equity	2008
Pension Liabilities	(14,857)
% opg Net worth	-52%
Plan assets / Net worth	2010
Equity	155%
Total	374%

2001,2002 & 2008 price decline affected funding. Also refer GPM improvement point below.

The company does show improvement in gross profit margin (GPM) for seven years since 2004. During the same period, actual pension plan expense had increased.

Though, IBM claimed the improvement was due to:

Improved business segment mix towards higher margin/value segments

Productivity and cost management

Since 2008, the defined benefit pension expense for the company declined (even though there was underfunding) and the service cost component of the US Plans became nil, which again raises a red flag. This change, is not explained anywhere (only mentioned as a passing reference, as part of plan redesign).

The cash flow did not support the accrual accounting profit margins. Later, an improvement in free cash flow (FCF) margin in 2009 (TABLE 3) provided some backing for it.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FCF Margin	9.3%	10.2%	10.6%	10.5%	10.6%	10.5%	10.7%	13.4%	17.4%	14.6%

IBM managed to score a clean M-score for the period under consideration (for 1994-2011).

The M-Score is a mathematical model, developed by Beneish Messod, which uses company's financial ratios to help determine whether there is a manipulation in its earnings. Companies that score a value greater than -2.22 are more likely to be earnings manipulators.

The company had a good M-score because it did not consider off-balance sheet, classification or clubbing issues.

TABLE 4 below shows how the company has possibly done some window-dressing of its financial statements. The highlighted numbers in the tables below show the years and the heads where company ratios needed adjustment as per our analysis. Hence the real M-score for the company would not pass muster in any year within the period.

M score by Professor Messod Beneish. Year

Index	avg	1994	1995	1996	1997	1998	1999	2000	2001
Debtor's Turnover Index		1.17	1.05	0.95	0.98	1.08	0.45	1.14	0.93
Gross Margin Index		0.98	0.93	1.05	1.03	1.03	1.04	0.99	0.95
Asset Quality Index		0.95	0.49	0.98	0.90	1.02	1.05	1.09	1.37
Sales Growth Index		1.03	1.12	1.06	1.04	1.04	1.07	1.01	0.94
Depreciation Index		1.05	1.04	1.10	0.97	0.97	0.72	1.22	1.12
SGa Index		0.84	0.91	0.96	0.96	0.97	0.95	0.94	1.04
Leverage Index		0.94	1.00	1.02	1.03	1.02	0.99	1.00	0.96
Total Accruals to Total Assets		(0.11)	(0.08)	(0.06)	(0.03)	(0.03)	(0.03)	(0.01)	(0.07)
M Score		(2.73)	(2.79)	(2.93)	(2.73)	(2.65)	(3.03)	(2.34)	(2.78)

M score by Professor Messod Beneish. Year

Index	2002	2003	2004	2005	2006	2007	2008	2009	2010
Debtor's Turnover Index	1.11	0.92	0.97	0.96	1.13	0.98	0.91	1.07	0.97
Gross Margin Index	1.03	1.01	0.99	0.93	0.96	0.96	0.96	0.96	0.99
Asset Quality Index	1.47	1.11	1.00	1.05	0.94	1.02	0.98	1.01	1.11
Sales Growth Index	0.98	1.10	1.08	0.95	1.00	1.08	1.05	0.92	1.04
Depreciation Index	0.94	0.96	1.03	0.89	1.09	1.01	0.94	1.07	1.02
SGA Index	1.04	0.95	1.00	1.11	1.03	0.99	1.00	0.97	1.00
Leverage Index	1.03	0.96	0.99	0.94	1.05	1.05	1.15	0.90	1.01
Total Accruals to Total Assets	(0.11)	(0.07)	(0.06)	(0.07)	(0.05)	(0.05)	(0.06)	(0.07)	(0.04)
M Score	(2.71)	(2.71)	(2.73)	(2.90)	(2.67)	(2.66)	(2.88)	(2.77)	(2.62)

Mr Buffett, who believes in long term investing, seems to have put both his faith and money in IBM. The company has yet to vindicate his decision. IBM has been not been performing well; this can be seen clearly in its recent financials, even the ones not adjusted for any

possible financial manipulation. The year-on-year growth (in TABLE 6) has shown a steep decline in the past two financial years while revenues too have reduced. The working capital has increased for 2013 even as revenue has decreased.

TABLE 5 shows how The company's operating profit (OP) margin, Return on Equity (ROE) and ROA had deteriorated significantly from 2012 to 2013.

	Dec 31, 2013	Dec 31, 2012	Dec 31, 2011	Dec 31, 2010	Dec 31, 2009
Return on Sales					
Gross profit margin	48.63%	48.13%	46.89%	46.07%	45.72%
Operating profit margin	19.65%	20.59%	20.01%	19.33%	19.00%
Net profit margin	16.52%	15.89%	14.83%	14.85%	14.02%
Return on Investment					
Return on Equity (ROE)	72.32%	88.04%	78.73%	64.36%	59.31%
Return on Assets (ROA)	13.06%	13.93%	13.62%	13.07%	12.31%

Source : Based on data from International Business Machines Corp. Annual Reports

Growth Profitability and Financial Ratios for International Business Machines Corp Financials

	2011-2012	2012-12	2013-12
Revenue USD Mil	106,916	104,507	99,751
Operating Income USD Mil	20,286	20,443	18,777
Free Cash Flow USD Mil	15,179	15,504	13,345
Working Capital USD Mil	8,805	5,808	11,196
Year-on-Year Growth%			
Revenue	7.06	-2.25	-4.55
Operating Income	11.77	0.77	-8.15
Net income	6.89	4.72	-0.73
Operating Cash Flow	1.52	-1.31	-10.73

Mr Buffett's confidence notwithstanding, the current financials when coupled with the past history of active income manipulation, does not seem to bode well for the investors (present and future) of this company.

BOTTOMLINE:

IBM is a traditional blue chip, but it has resorted to less than optimal reporting in the past and has not passed the rigours of our QoE analysis. The change of technology has

caught up with it. Unless the company improves its reporting quality and operational approach, it is not an attractive long term investment, no matter what Mr Buffett says.