# How to spot earnings manipulation and fraud when investing


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# Introduction

Below is a famous children's rhyme by Rudyard Kipling, it tells you how to spot earnings manipulation and fraud (although that wasn't his intention).

'I keep six honest serving-men

(They taught me all I knew);

Their names are What and Why and When

And How and Where and Who.'

When I started writing this, I think I had forgotten how wide a subject fraud and the misreporting of earnings is, it's a large and technical subject. There are some very heavy academic texts on the topic. Plus, I have been doing this for a while now, so, how do you condense down years of experience reading financial statements and explain to someone, perhaps with little or no knowledge, what to look out for.

I am going to attempt to describe some simple guidelines on how an ordinary person, sitting at home with just a laptop, can perhaps identify potential issues within financial statements. Steps that might save them money from poor investments. You can't expect to turn into a forensic accountant or an expert on fraud. But, let's see if we can keep out of trouble.

As we go along, you will see that most is perhaps what we call common sense. It's important to understand that common sense is an essential part of value investing. With investing, as in life, you should pride yourself on how much of it you have. You will notice references to it throughout this report. If you have none, or are struggling to comprehend what I mean when I refer to 'common sense', perhaps what I should really be saying is just 'stop what you are doing,  just pause for a minute, think, why is this number the way it is?". That is why I started off the report with a Ruyard Kipling children's rhyme, about gaining knowledge through asking questions. Because all you have to do is ask yourself questions. Of course, you have to first know what questions to ask!

This report is going to be in two parts. In part one, I discuss how to best go about research, what are some of the main points to look out for? And, more importantly why? In part two, I am going to describe a few additional points, these will be based around signs revenue is being diverted.

In other words, part one is trying to describe how to spot if someone is committing fraud or exaggerating earnings. And, part two is trying to describe how to spot when they are moving the cash.

In addition, in part two, to keep things interesting and give some examples, I will incorporate a few of the research findings of the Hedge Fund, Muddy Waters, famous for uncovering frauds, subjects of the film 'The China Hustle'. Who better to give as an example? Let's see a few pointers on what to look for from their excellent work. There are literally dozens of reports on their website, so I have used a sample to illustrate certain points. Here's a link to their site.

https://www.muddywatersresearch.com

Before we start though, please understand, this is not intended as an in-depth study. At best I can only cover some of the main problems. But don't worry, I think you will find it helpful. It starts with simple concepts and adds more detail (hopefully).

# Part One – how to identify problems

In part one, my intention is to describe how to go about identifying problems. How to do your research. I cover some of the main ways a company might go about manipulating its earnings and more importantly how to spot it happening. These topics are based, amongst others, on the following;

- Early revenue recognition;
- Manipulating inventory;
- Current Assets;
- Manipulating cash flow;
- Serial acquisitions
- Goodwill;
- Capitalised costs;
- Management; and
- Auditors

There are many other ways, but it would take a bigger, more detailed text than this to explain. I have listed an excellent book at the end for further reading.

However, my overarching message is, it’s more important to pay attention to the techniques. What I mean by that is you will see the same methodology being repeated. These methodologies are based around looking for patterns and oddities, asking questions and reading the small print, reading footnotes, looking for changes in how a company reports its earnings. As you will notice me mentioning, often, you don’t need to be an accountant to do these things.

## A note on GAAP - Non GAAP

GAAP - generally accepted accounting principles

When companies are engaged in a financial statement fraud there may be a number of different wording or terms that they will use to minimize what they are doing. These phrases are often meant to make things sound ok, or even a positive, dynamic matter. Probably the most common one of those phrases is 'aggressive accounting'. When you hear this, Management is saying that they're applying the accounting rules (which have plenty of totally legal ways of being interpreted) in a manner that improves their financial statements. Their application of those accounting rules is in accordance with GAAP.

Just as an example, not implying anything😊. But check the difference between GAAP and non-GAAP. Source: [Tesla IR Q4 2019]

FINANCIAL SUMMARY
(Unaudited)

| ($ in millions, except percentages and per share data) | Q4-2018 | Q1-2019 | Q2-2019 | Q3-2019 | Q4-2019 | QoQ | YoY |
|---|---|---|---|---|---|---|---|
| Automotive revenues | 6,323 | 3,724 | 5,376 | 5,353 | 6,368 | 19% | 1% |
| of which regulatory credits | 95 | 216 | 111 | 134 | 133 | -1% | 40% |
| Automotive gross profit | 1,537 | 751 | 1,016 | 1,222 | 1,434 | 17% | -7% |
| Automotive gross margin | 24.3% | 20.2% | 18.9% | 22.8% | 22.5% | -31 bp | -179 bp |
| | | | | | | | |
| Total revenues | 7,226 | 4,541 | 6,350 | 6,303 | 7,384 | 17% | 2% |
| Total gross profit | 1,443 | 566 | 921 | 1,191 | 1,391 | 17% | -4% |
| Total GAAP gross margin | 20.0% | 12.5% | 14.5% | 18.9% | 18.8% | -6 bp | -113 bp |
| | | | | | | | |
| Operating expenses | 1,029 | 1,088 | 1,088 | 930 | 1,032 | 11% | 0% |
| Income (loss) from operations | 414 | (522) | (167) | 261 | 359 | 38% | -13% |
| Operating margin | 5.7% | -11.5% | -2.6% | 4.1% | 4.9% | 72 bp | -87 bp |
| | | | | | | | |
| Adjusted EBITDA | 1,039 | 155 | 572 | 1,083 | 1,175 | 8% | 13% |
| Adjusted EBITDA margin | 14.4% | 3.4% | 9.0% | 17.2% | 15.9% | -127 bp | 153 bp |
| | | | | | | | |
| Net income (loss) attributable to common stockholders (GAAP) | 140 | (702) | (408) | 143 | 105 | -27% | -25% |
| Net income (loss) attributable to common stockholders (non-GAAP) | 345 | (494) | (198) | 342 | 386 | 13% | 12% |
| | | | | | | | |
| EPS attributable to common stockholders, basic (GAAP) | 0.81 | (4.10) | (2.31) | 0.80 | 0.58 | -28% | -28% |
| EPS attributable to common stockholders, basic (non-GAAP) | 2.00 | (2.90) | (1.12) | 1.91 | 2.14 | 12% | 7% |
| | | | | | | | |
| Net cash provided by (used in) operating activities | 1,235 | (640) | 864 | 756 | 1,425 | 88% | 15% |
| Capital expenditures | (325) | (280) | (250) | (385) | (412) | 7% | 27% |
| Free cash flow | 910 | (920) | 614 | 371 | 1,013 | 173% | 11% |
| Cash and cash equivalents | 3,686 | 2,198 | 4,955 | 5,338 | 6,268 | 17% | 70% |

Be careful when you see or hear this phrase. Also, be aware if you hear it used perhaps by respected financial commentators or journalists. Often, it is used as a euphemism, a nudge and a wink to bad practises. Something a journalist can get away with without getting sued!

Executives use something they call earnings management or income smoothing to level out their earnings between periods and to present a more consistent picture of their profits from year to year. They do this because investors like predictability, stability, they like growth. A company's management can be tempted to aggressively apply the accounting rules to make this happen. The reality is overly aggressive accounting can easily become fraud.

## Don’t Worry About Fraud, Worry About Losing Money.

**‘Rule number one - Don’t lose money” - Buffett**

Let's start by stating, fraud is actually very rare, it’s also often very hard to spot, especially a concerted effort to lie and cheat. So, don’t spend too much of your time trying to find it. This sounds wrong, this is a report about identifying fraud after all. But what you should really worry about is losing money in general.

If you think about it, for our purposes as investors, fraud and losing money are the same thing. What do you care if your 10 grand investment has disappeared through outright fraud or through a drop in earnings? Your money is still gone.

As I have just mentioned, outright fraud is actually quite rare, most firms are led by honest hard-working people, proud of their products, keen to make a success of their businesses. For most investors, the bigger problem, in reality, is how companies apply rules, accounting rules. These cover how they report their financial accounts. If a company loses 40% of its share price, due to misstating its earnings, or goes bust, do you really care, as a shareholder, if it was fraud or a misuse of accounting rules. Either way you've lost money. But there is a fine line between the two.

So, in this report, when I talk about either fraud or 'aggressive accounting' within the rules, read them as the same thing. It will avoid confusion. As far as I am concerned, the only difference between the two is, one you go to jail, the other you get a fine, at best.

Fortunately, we are talking here about how to identify issues through researching financial statements, so many of the methods for identifying fraud are the same as those used by companies to exaggerate their earnings.

So, my advice, try not to lose money, it's your best protection against fraud. It's also as Buffett states the most important rule in investing. Why?

People like looking for cheap stocks, hidden gems, something where they can make a big profit. But, avoiding a big loser is more important than getting a big winner. Because, mathematically, if you lose 50% of a stock's value, you've got to make 100% just to get back to where you were. If you're in your 60s and your portfolio takes a 40-50% hit, you're going to perhaps carry on working and put off that retirement, because you might never get your money back to where it was.

So, you need to concentrate on not losing money, more than making it. But people don't. Remember, here I am not talking about day to day, month to month fluctuations in stock price. I am talking about losses to the solid fundamental value of a company.

But, all companies have a bump in the road. No company has just a straight line on a chart, showing growth. All experience negative cycles, maybe it's related to the economy, or a competitor comes in, or whatever. So, you need to learn what to look for, how do you recognise signs that you could be losing money, as opposed to just natural events.

## Look For The Patterns, Ask Questions.

First, as mentioned in my introduction, apply what might appear to be just good old common sense. Stop, pause and think about why something might be the way it is. This means in terms of fraud or aggressive accounting; you need to look for things that stand out as wrong. You should be looking for patterns, cycles and figures that both should be there or are missing, that are odd. You don’t need to be an accountant to do so. All you need to do is slow things down and think. Only then will you be able to spot something that is odd, something that doesn’t appear right.

Looking at a company and its annual reports is no different from buying, say a used car. Things always look nice and shiny when you first look. However, like everything else this can fall apart, when you dig deeper or verify what’s being said. So, take time and don’t hurry, ask questions, look for things that don’t appear right.

What does this mean in practise? Well, for a start, never look at a company in isolation, you must compare it with its competitors, this is why I always carry out a sector analysis. It is so important.

If you see rapid growth or expanding margins when compared to others in the industry, for example, ask yourself why? Especially if that growth is made through rapidly acquiring a lot of smaller companies (more on this later).

The reason patterns and oddities are such a red flag for fraud or an indicator of aggressive accounting is, sadly, although in any industry there are players who do business better than the others, the reality is this is not normally the case. Business is dull, it is boring, growth is slow, profits go up and down. Most companies and managers are just ok. Not great, just ok. As a result, the further that growth moves away from the average, the less likely it is to occur, both mathematically and in real life. So, look at what competitors are doing, do things look 'normal'.

Similarly, you cannot look at just one year of accounts in isolation, compare several, the more the better. Often figures will jump out of the page at you. For example, if a company has steady free cash flow figures around 20 million dollars every year for 10 years and suddenly it drops to negative 10 million, something must have happened.

The above example of cash flow also points us to why you must look at the set of entire financial statements. Not just one part, say debts or earnings. Why? Because, people are not as clever as they think they are! This can be especially true when they are a CEO with an MBA from Harvard. What do I mean by this? When executives are manipulating financial statements, they manipulate the obvious numbers, but, they forget that there may be effects on other numbers and other ratios. If cash flow goes down, something else must have gone up, that's why we call them Balance Sheets, they should balance. We also need to look at ratios, percentages we can compare, debt to equity, gross margin etc. It makes it easier to understand what is going on.

So, in practical terms, you need to compare financial statements with competitors, compare with previous years, examine other line items recorded in the statements and look at shifts in ratios. In other words, look for patterns and oddities.

A company's actual financial results should also be compared to budgeted or projected figures, if they're available. This is why it's important to listen to earnings calls. Little details are mentioned, often unwittingly, as chance comments.

We also want to evaluate how actual results compared to those management estimated would occur before that accounting period. Now, remember, these figures are estimates, simply a projection. But, significant variances from the budgets should be investigated. Why? Because at some time in the future that difference is going to affect the share price.

How do you do these things in practise? A good place to start is to look at current period figures, versus prior period numbers. We can compare the current year results to the last several years and we might also want to look at quarterly figures comparing numbers between periods. Buffett, for example, likes to look at a good 10 years plus of figures. This tends to cover at least one economic cycle and mathematically it allows for unusual occurrences to smooth out.

Understand, this is not just my famous 'common sense'. Financial Analysts call this sector analysis, horizontal analysis, vertical analysis and ratio analysis. It's what they do every day. If they do it, so should you. Fortunately, most web sites, Morningstar, for example, usually supply data covering several years for you. You just have to look. Most people don't.

Looking for patterns and oddities is also backed up by academic theory. For example, in terms of identifying problems, a whole area of fraud prevention is based around identifying unusual numbers, it works on the probability distribution within data sets. Numbers don't appear randomly, certain numbers have more chances of appearing than others, the number 1 for instance has a 30.1 % chance of being the leading digit in a series of numbers, the number 9 a 4.6% chance. Fraud managers use these mathematical principles to mine large data sets to look for issues. It is based on a mathematical law called Benford's or Newcomb–Benford's law. Here's the formula:

$$P(d) = \sum_{k = 10^{n-2}}^{10^{n-1}-1} \log10\left(1 + \frac{1}{10k + d}\right)$$

Source: Investexcel

Feel free to start data mining! Alternatively, just look for patterns and things that stand out as odd. Common sense - but how many of you actually do this?

## Start at the Top and at the Back

In broad terms, financial statements are just a list of items. As you go down the list the items get recorded in order of importance. Then, they get added or subtracted to arrive at a final figure. For example, Revenue gets added and subtracted to in order to arrive at Net Income. If you are a company and you want to exaggerate profits, the items you add or subtract are how you go about it.

So, when you look at a company for potential problems, where the figures are recorded is a good indicator of their importance. Figures listed first are more important, generally. So concentrate on these, this is where a company will try to manipulate things first. Sometimes, companies will move items to the bottom to hide things, but generally start at the top.

This might sound obvious, but really, I want to reinforce this point, by repeating myself.

When you physically look at an income statement, you have revenue on the top and net income on the bottom, with lots of adding and subtracting in between. So, if you think about it logically, net income, earnings, the final figure in the income statement is actually the least important number written down, because it is the most inaccurate number you will look at, it’s often made up. Why? Because between revenue and net income, you have lots of line items that management can play with, legally, using the rules, to derive whatever net income they want. So revenue is the most important figure, earnings the least. Your job is to arrive at a more realistic figure, through your own research!

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(Unaudited)

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| EPS attributable to common stockholders, basic (GAAP) **BOTTOM** | 0.81 | (4.10) | (2.31) | 0.80 | 0.58 | -28% | -28% |
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| Cash and cash equivalents | 3,686 | 2,198 | 4,955 | 5,338 | 6,268 | 17% | 70% |

$6.3 billion in revenue is drilled down to $105 million in GAAP net profit or $386 million in non-GAAP net profit. With such margins, it is easy to play.

So, when you're analyzing a company, you want to look from the top down. Remember though, although at the bottom of an income statement, net income is also the first line item on a cash flow statement. This means when you analyse cash flow, if the net income happens to be manipulated, then cash flow quality is probably low as well. As a result, you have to look at things as a whole - Income Statement, Balance Sheet and Cashflow Statement together. Looking vertically at things and remembering they are all interlinked is important. Don’t just look at “debts’ or “earnings”, start at the top, work down and look at the whole picture.

Also, Financial Statements have footnotes added to them in annual reports and submission to regulators, such as the SEC. Footnotes explain how figures were arrived at, how the company interpreted the accounting rules. They are always buried in small print at the back of any report. Always, always read the footnotes, they will contain the problem areas.

The odd thing about fraud and aggressive accounting is that often the fact it is taking place and how it is being done is clearly spelt out. Albeit in small print, hidden at the back of a report. Companies rely on people being too lazy to bother reading it.

So, in summary. Start at the top, work down and look at the footnotes of reports, for hidden details.

## Revenue Recognition

**“Any fool can lend money, it is getting it back that is the difficult bit” - Munger**

If Revenue is the most important figure, let’s examine a couple of ways Revenue can be manipulated.

The most common way is often called “stuffing the channel’.

Stuffing the channel is a way of borrowing future earnings and recording them in the present day. Here’s an example of how it might happen.

A company is coming up to the end of its financial quarter and they have to report their earnings. They know they are going to make a loss. So, the bosses approach a few of their existing customers and says ‘I know you normally make a big order later in the year, maybe in time for Christmas, but if you sign the contract today I'm going to give you 250 days to pay and I'm going to give you 30% off the normal list price’. The customer is very happy, they’ve got 250 days to pay and they are getting a discount. These things help their cash flow and improve their margins. They sign the order. The company boss is happy, they can show a surge in earnings when they announce their quarterly figures.

The problem is, the bosses have stolen earnings from later in the year, so unless they repeat the process, with someone else later on, later earnings are going to take a hit. So to avoid this they keep following the same approach. Eventually though, it snowballs and you run out of customers.

But, the biggest issue is customers are taking longer to pay and giving you less cash, you’ve just extended the number of days they have to pay to 250 days and you have also given them 30% off. So you might be making sales orders but the quality has gone down, your company is weaker and your Cashflow has got worse. After all, the people you owe money to still insist you pay them on time. So, now you go longer without having cash hanging around. Your a weaker company, more risky.

Accounts receivable 39% up on sales up 1.1% for comparative quarters

BALANCE SHEET
(Unaudited)

| In millions of USD | 31-Dec-18 | 31-Mar-19 | 30-Jun-19 | 30-Sep-19 | 31-Dec-19 |
|---|---|---|---|---|---|
| ASSETS | | | | | |
| Current assets | | | | | |
| Cash and cash equivalents | 3,686 | 2,198 | 4,955 | 5,338 | 6,268 |
| Restricted cash | 193 | 131 | 128 | 233 | 246 |
| Accounts receivable, net | 949 | 1,047 | 1,147 | 1,128 | 1,324 |
| Inventory | 3,113 | 3,837 | 3,382 | 3,581 | 3,552 |
| Prepaid expenses and other current assets | 366 | 465 | 570 | 660 | 713 |
| Total current assets | 8,307 | 7,678 | 10,182 | 10,940 | 12,103 |
| Operating lease vehicles, net | 2,090 | 1,973 | 2,070 | 2,253 | 2,447 |
| Solar energy systems, net | 6,271 | 6,242 | 6,201 | 6,168 | 6,138 |
| Property, plant and equipment, net | 11,330 | 9,851 | 10,082 | 10,190 | 10,396 |
| Operating lease right-of-use assets | — | 1,253 | 1,248 | 1,234 | 1,218 |
| Goodwill and intangible assets, net | 350 | 348 | 481 | 537 | 537 |
| MyPower customer notes receivable, net of current portion | 422 | 413 | 400 | 398 | 393 |
| Restricted cash, net of current portion | 398 | 354 | 366 | 255 | 269 |
| Other assets | 572 | 801 | 843 | 820 | 808 |
| Total assets | **29,740** | **28,913** | **31,873** | **32,795** | **34,309** |

## How to Identify Channel Stuffing?

One of the easiest ways to identify if this is happening is to look at the line item called Accounts Receivable. Money earned by the company. It is listed as an asset. Compare this figure to previous periods and to that of competitors. Are more accounts outstanding? Are they outstanding longer than is normal in the industry? Are they keeping pace with other figures, such as revenue or sales, as a percentage?

One ratio is particularly useful to see if this is happening. “Day Sales Outstanding” which is part of the working capital cash conversion cycle (Most financial websites calculate these ratios for you. Or, you can easily calculate it yourself, the ratios can be found on the web). As it says, it’s the number of days sales are outstanding, ask - have they gone up? Why?

Remember, also, if this figure has increased but sales have also increased the company might in fact be selling more, but to poorer quality customers, giving them easier credit terms. This could mean more defaults on debt in the future. In other words, they are overstating earnings by not taking into account more defaults. How can you spot if this is happening?

One sign that a company may have overstated its earnings is the inclusion of large amounts of accrued income in its balance sheet. In basic terms, this is money owed to the company by customers for which they have not received payment or are having trouble getting paid. It will feature in later statements when it falls due. The company is often guessing the amount owed. This figure will be found in the footnotes alongside trades receivables (money owed where there is an invoice payable during the reporting period).

Also, companies have to make a provision within their accounts for a percentage of bad debt. This provision is recorded as an expense. If a company lowers this figure, they lower expenses whilst boosting earnings.

If these provisions change it will be stated in the footnotes. The company will also announce, in its footnotes, changes in how it goes about recognising revenue. Good or bad, these changes will affect earnings. Ask yourself, why have they changed the provisions and is it standard across the industry?

As mentioned, with respect to Days Sales Outstanding, companies that have growing accruals are often waiting for large amounts of income. This means their cash flow can be poor –a prime reason companies go bust. So, look to see if there's a big change in accrued income, year on year. This means looking at a couple of years annual reports for the footnotes.

A large amount of accrued income might be a sign that people owing money are reluctant to pay or dispute the amount. Large amounts of accrued income, especially in software or service companies, are worth investigating thoroughly. For example, governments and local councils can be slow payers and dispute the terms of a contract, especially if the government cuts their budgets.

Any changes in accruals or Accounts Receivable should keep pace with the number of sales, they work in tandem. Be especially on guard for a growing or large accounts receivable when revenue is flat to declining.

It's important to understand, changes to figures and policies on revenue recognition do not always mean fraud. But they do mean changes in stated earnings.

Finally, remember that accrued income in a company's balance sheet is income earned but not yet paid by the customer. It is therefore only an estimate of what the company thinks it is going to get. **IF THE AMOUNT OF ACCRUED INCOME IS LARGER THAN TRADES RECEIVABLES BE CAREFUL.**

Why? - Because, why would anyone want to invest in a company that has a finance department who guesses where the majority of its money is coming from?

So:

- Compare the change in accounts receivable with the rate of change in revenue, ideally over a number of quarters.
- Ask yourself, are there any significant differences in the rates of change? Do you know why?
- Is the allowance for doubtful accounts sufficient to cover future collection problems?
- Look at A/R days for each of the last four to six quarters
- Ask yourself is any trend steady, improving, or getting worse?

## Percentage of Completion Accounting

This next example of revenue recognition is more often found in companies who rely on large contracts for their earnings, as opposed to companies who sell items.

Generally, management gets to decide how much of a project is actually completed in a given quarter. At that point they can recognise revenue from that project. So they can estimate not only the revenue, but also the margin on it. Software firms have specific accounting rules covering how they recognise revenue from IT projects.

As an investor, you might only know the total revenue at the end of a project. Perhaps a big press report has announced “Mars Space Rockets signs 100 million deal to send it CEO into space!”. If it's a USD$100 million deal, it's a USD$100 million deal. The problem is, it’s going to take time to earn the total amount of money. It’s a 10 year project perhaps. If the company wants to be aggressive, it can recognize 90 Million of it in one year and then the other 10 million over, say, three more years. This is basically the same as stuffing the channel. You recognise revenue too early. It causes the same problems.

Similar to the problem of percentage of completion accounting,
is the estimation Future Revenue Streams

Many companies enter deals to supply goods or future services, over many years. These future revenues are recorded in the annual report, after their values have been estimated by discounting the future cash flows, back to the present day. This is similar to how many of us come up with the intrinsic value of a share.

Look to the footnotes to view the discount rate used to carry out the estimation. For example, is it realistic, with a recession coming, to apply a 20% growth rate rather than a more realistic 3%? Discount rates affect profits, get them wrong and the share price will slide.

**A good point to remember here, whenever a company is allowed by accounting rules to estimate something, anywhere in its financial statements, check the figures. Normally by looking at what competitors do in the same situation.**

## How to if Identify Aggressive Revenue Recognition Might Be Happening?

The easiest way involves, again, reading through the footnotes of annual reports, going back a couple of years. In the small print, a company will announce a change in how it recognises revenue. Normally this is tied in with figures for a particular work site or project, perhaps a mine or similar. Alternatively, you can use the existing percentages and calculate for yourself. Do the same again by looking at how competitors recognise their revenue. Are they the same?

Again, you don't need to be an accountant to do this, just have the ability to look something up in the footnotes of a competitor's financial statements. The figures will be different, but the percentages roughly the same, X in one year when this happens, Y the next year when something else happens.

In reality, you don’t even need to do any calculations. The mere fact the rules have changed tells you something is going to be different, normally for the worse!

## Accounts Payable

The opposite of Accounts Receivable, money a customer owes to the company is Accounts Payable, money the company owes to its own suppliers. It is recorded as a liability within the financial statements.

When accounts payable are understated, inventory purchases are usually understated as well. When inventory is understated you get an understatement of the cost of goods sold. So, understating accounts payable causes an understatement of cost of goods sold. A low cost of goods will exaggerate earnings. This is a good illustration of how if you change one line item within financial statements, it will have an effect elsewhere. This is why you need to look up, down, sideways.

Like Acc Receivables, it’s important to follow the same methodology to identify potential problems. You need to look to see if the company is taking longer to pay what it owes. Look at the ratio, Account Payable Days. Taking longer to pay what it owes could be an indicator the company has Cashflow problems. It also means it could be downgraded as a lower credit risk, meaning it will get less favourable terms from suppliers, costs will go up and it will have to pay more to borrow money.

Look to see what competitors are doing. Look for a deterioration in the numbers. A large, powerful, company with a good moat will be able to bully its suppliers into better terms of payment, or offer better terms, but more often than not this is not the case. An unexpected jump in gross profit margin also may be an indicator that an 'odd' adjustment was made to accounts payable and cost of goods sold.

It is important to realise, however, that misstated inventory purchases (more on this later) and accounts payable may be of insufficient size to have an effect on gross margin or A/P days to be noticeable. A more sensitive way to spot issues involves the relation that exists between inventory and accounts payable.

As mentioned above, most accounts payable transactions are for the purchase of inventory. So, a change in accounts payable will closely track, in percentage terms, changes in inventory.

So

- Look to compare A/P days for each of the last four to six quarters
- Is the trend steady, worsening, or improving?
- Ask yourself - how does this compare with competitors' and other firms in the industry?
- Look to see if there was sudden and unexpected improvement in gross profit margin?
- How does the percent change in accounts payable compare with the percent change in inventory?

# Inventory Management.

Most Companies have raw materials, work in process and finished goods listed in their financial statements. Some like banks and service companies may not. How these items are recorded and perhaps more importantly how they are valued is covered by accounting rules. There are a few methods used but what is important to remember is no company wants dead, obsolete, and most importantly, budget-draining inventory. But, at the same time, tight inventories can lead to shortages and lost sales.

If a company aggressively tightens inventory, sales and accounts receivable might drop because they might run short of product. Inventory shortages might result in lower revenue. Because competitors with well-stocked inventories can steal customers. Alternatively, a more conservative policy might mean that some of a company’s working capital is not being used. This is like leaving money on the table, a company might have used the excess assets more productively to increase returns.

International Accounting Standard 2 –Inventories (IAS 2), which governs the valuation of inventory, says inventory should be valued at the lower end of cost and realisable value. If it is not, there can be consequences. Any unusual reduction in asset valuations for items such as inventory, receivables and fixed assets ahead of an IPO, for example, may help boost the periods set of profits but is adding problems for the future.

However, our biggest concern when looking for aggressive accounting and fraud is probably when a company overstates its inventory. Because, when it does it will have an effect on gross profit and net income, making them appear larger than they actually are (It will also affect current assets, total assets, retained earnings, stockholders' equity, and all of the related financial ratios).

The reason gross profit and net income are overstated because of exaggerated inventory is because not enough of the cost of goods available is being charged to the line item, cost of goods sold. Also, a higher amount of net income means that retained earnings and stockholders' equity is also too high.

In a similar way to the example of channel stuffing affecting future earnings, overstated inventory in the current report, has an effect later on. Since the overstated amount of inventory at the end of one accounting period becomes the beginning inventory of the following period, the following period's cost of goods sold will be too high and will result in the period's gross profit and net income being too low. There are a number of methods to manipulate inventory figures, but I will not detail them here for reasons of time and space. But, whatever method is used, how it is detected is exactly the same.

## How to identify if Inventory Manipulation is Happening?

As a result of companies messing around with inventory, there will be an unexplained increase in inventory out of proportion to any increase in revenue. Also, the ratio ‘inventory days’ will rise and reach levels that higher than those for key competitors in the industry.

An inventory that is fictitiously increased will also result in an unexpected improvement in gross profit margin. This is, of course, not saying that an improvement in gross profit margin is a sign of inventory fraud. The point is that gross profit margin goes up when companies overstate inventory, so look out for this and ask yourself, why is this happening?

Again, to spot if this is happening - read the footnotes. Generally Accepted Accounting Principles (GAAP) allows different valuation methods for inventory (LIFO, FIFO, and average cost), a company's management can use this choice to manipulate its earnings. Look for any changes in accounting policies related to inventory. Changes in methods can indicate earnings management. Again, you don't need to be an accountant to understand this. Just realise, if you bring in a new way to add things up in a list, then the answer at the bottom might change.

Also, think about it, apply common sense. It costs a lot of time and effort to change how you record millions of dollars of inventory. I wouldn't want to do it for a small shop, let alone a series of warehouses! So, this is a major policy change. Also, compare a company's inventory valuation method with that of its peers. There are only so many ways you can effectively manage your inventory and the best software etc. is likely to be already in use by most competitors.

## Current Assets

**Cash is King**

This section is a short, straight forward way of looking for potential issues.


Many of us will be aware of using the Current Ratio, to measure liquidity (current assets divided by current liabilities). This is a good idea. As a rule, it is best to look for firms with a ratio above 1. But when looking at annual reports also consider the quality or any changes over time in current assets. The Current Ratio is not the full story.

# What To Look For

Current assets are normally listed in order of liquidity. Cash is king, it is readily available followed by invoiced receivables, amounts recoverable on contracts are lower down etc. Any changes in the quality of current assets might indicate a growing liquidity problem within the company. So, look back over a number of years or periods at individual line items. Check, whilst the overall amount of current assets hasn't changed, has the 'quality' of those assets changed?

In part two, I will be explaining, with the use of examples from Muddy Waters, how a person might try to 'remove' cash away from a company. But here, from Muddy Waters, is an illustration of how to spot a deteriorating cash position, relating to a company called RINO (see part two for more detail). It also neatly illustrates a number of the points I have made earlier.

| | **12/31/09** | **3/31/10** | **6/30/10** |
|---|---|---|---|
| Cash and equivalents | 134,487,611 | 97,659,037 | 88,036,608 |
| Restricted cash | - | 3,806,131 | 3,388,392 |
| Notes receivable | 440,100 | 539,929 | 469,960 |
| Due from shareholders | 3,005,386 | 3,074,748 | - |
| Accounts receivable | 57,811,171 | 52,257,896 | 68,389,279 |
| Excess costs and earnings | 3,258,806 | 24,417,688 | 38,902,971 |
| Raw material | 246,798 | 237,609 | 247,401 |
| Work in process | 5,101,685 | 1,922,420 | 4,096,186 |
| Low consumption supplies | 57,383 | 57,383 | 57,641 |
| Inventories | 5,405,866 | 2,217,412 | 4,401,228 |
| Advances for inventory | 34,056,231 | 84,358,237 | 64,425,996 |
| Other current and prepaid | 629,506 | 1,457,815 | 879,076 |
| Total current | 239,094,677 | 269,788,893 | 268,893,510 |
| Net PP&E | 12,265,389 | 12,881,407 | 13,020,836 |
| Investment in unconsol affiliate | | 440,100 | 441,900 |
| Advances | 6,570,378 | 14,257,458 | 9,492,531 |
| Net intangible assets | 1,144,796 | 1,131,759 | 9,026,114 |
| Total other | 7,715,174 | 15,829,317 | 18,960,545 |
| **Total assets** | **259,075,240** | **298,499,617** | **300,874,891** |

Ignoring the fact that RINO raised 100 million in 2009 and is manipulating its cash flow, you can see, if you look at the top line of the table above, cash and cash equivalents have declined by USD $46.5 million in six months. If you were to only look at the total figure, or perhaps not looked and relied on a ratio, you would have missed the deterioration in its assets. The overall Total Assets figure has actually gone up by over 41 million. This is an example of why, as we mentioned earlier, you should always start at the top and work down a list of items. The management have added and subtracted what they wanted to arrive at a healthy final figure.

Also, if you look closer, certain specific assets have increased. Let's point to earlier sections in this report and or indicate why that might be an issue:

If you look at line 6 you will see Excess Costs and Earnings (costs and estimated earnings in excess of billings on uncompleted contracts). These have gone up USD$35.6 million. In other words, RINO is 'estimating" it has earned 35.6 million more than it has billed for! Good going!

In line 8 - Advances for Inventory, RINO has put an additional $30.3 million in the pipeline to boost its amount of inventory (see the section on inventory manipulation above)

Its accounts receivable has gone up USD$10.6 million (see section on accounts receivable); and

Its Net Intangible Assets has gone up over 7 million (so, not solid objects, something intangible, something whose value is open to interpretation perhaps).

In other words, Assets have deteriorated, apart from those which either can me manipulate to increase earnings or can be estimated, boosted my management.

The result of the above:


All ways remember, in a set of accounts, profits, sales etc are subjective. Cash isn't, use cash as a measure of how things are doing. Ideally a company should be cash generating. This is why Free Cash Flow is a good guide to how a company is doing.

## Cash Flow and Acquisitions

Cash flow, especially operating cash flow is a key measure of performance of any company. Probably, the key measure.  This is because, as an investor, you should be looking to identify earnings power. A positive operating cash flow provides this evidence.

Operating cash flow is more sustained than other sources of cash flow, cash from investing activities or financing activities. For example, cash provided by investing activities could include cash from the sale of an item of property or equipment. The cash received from such a sale will be a one-off event. It’s not sustainable. Also, cash received from the issue of stock or debt, referred to as cash provided by financing activities, is not a recurring cash flow.

This does not mean an inability to generate operating cash flow is bad or unacceptable. Start-up companies, and even profitable companies that are growing rapidly, may have temporary difficulties in generating positive operating cash flow.

For most private investors, some of the GAAP requirements for the calculation of cash provided by operations are quite obscure and may be unknown, unless they are accountants etc. This means it is sometimes difficult to completely understand where some figures come from. For example, all income taxes paid by a company are included within cash flow provided by operating activities. But, on the income statement, income taxes are reported within their own respective line items and excluded from income from continuing operations. Confusing? Don’t worry about it, let’s keep it simple.

Whilst GAAP sets down certain rules, companies’ intent on “managing” their operating cash flow still have leeway. For example, say a company has an operating cash flow higher, for whatever reason, than expected for a reporting period. A reduction in inventory, the unexpected collection of certain receivables, or an amount of nonrecurring income might be the cause.

This company might choose to smooth out that cash-flow surplus, save it for a rainy day, by purchasing securities classified as trading. In a subsequent reporting period, when they know figures are likely to go down, the sale of those same securities would be included as operating cash flow.

For our purposes, operating cash flow is a key measure of a company’s performance. But is also a good way to spot potential problems. This is because any increases in earnings obtained through the aggressive accounting, examples we mentioned earlier perhaps, will not generate operating cash flow. Channel stuffing for instance, results in growing receivables but not cash. Also, steps taken to misstate inventory, might boost gross profit and net income but will not provide cash flow. Earnings are boosted but operating cash flow is not.

So, because earnings altered through aggressive accounting do not change operating cash flow, the relationship between earnings and cash flow can be used to detect problems. The ratio, adjusted cash flow– to–income ratio (CFI), can help highlight earnings that are not cash-flow backed. Any decline in the adjusted cash flow– to–income ratio can be an indication that earnings are growing faster than operating cash flow.

Here's an example of how to cover up cash flow problems. Acquisitions. It is probably one of the most regularly used, especially in times of low interest rates.

## Acquisitions

When a company is struggling or stagnant, they often try to shift things up a gear. They make acquisitions. They also do this because it covers up weak cash flow.

When you acquire a new company, you can make everything look great in the financial statements. You basically understate your expenses and overstate your profits by moving things on to the balance sheet. For example, you can assign a lot of value to goodwill (explained below). Eventually, however, as with channel stuffing, the chickens will come home to roost, you will have to 'write down' an 'impairment' for the value of that goodwill. Basically, admit you over paid. So, in a similar way to channel stuffing, eventually earnings will be affected by write downs.

Be especially careful when the company does this just after they go public. Just after their IPO when they are loaded with cash, if they then make acquisitions. Why? Because it's a good way to fudge financial statements and you will be doing it at a time when, historically, a company's earnings often go down. How many recent IPOs can you name that immediately went up in earnings not down?

The way purchase accounting works is it combines the accounts of two companies from the date of purchase. If one company has USD$100 million in revenue and the other USD $10 million in revenue, they are combined. This makes it look like 10% growth, even though nothing changed but the numbers.

So even if the company is a newly listed IPO, loaded with cash, it can still obscure the revenue growth, It can obscure cash flow. A company can do all kinds of things on the balance sheet to move expenses off there, to create all kinds of goodwill that doesn't really exist. And eventually this will just lead to big write downs in the future. Worst still, it doesn't really hit until a bear market, when a company can't make the next big acquisition, because the equity markets or the debt markets aren't available to finance it.

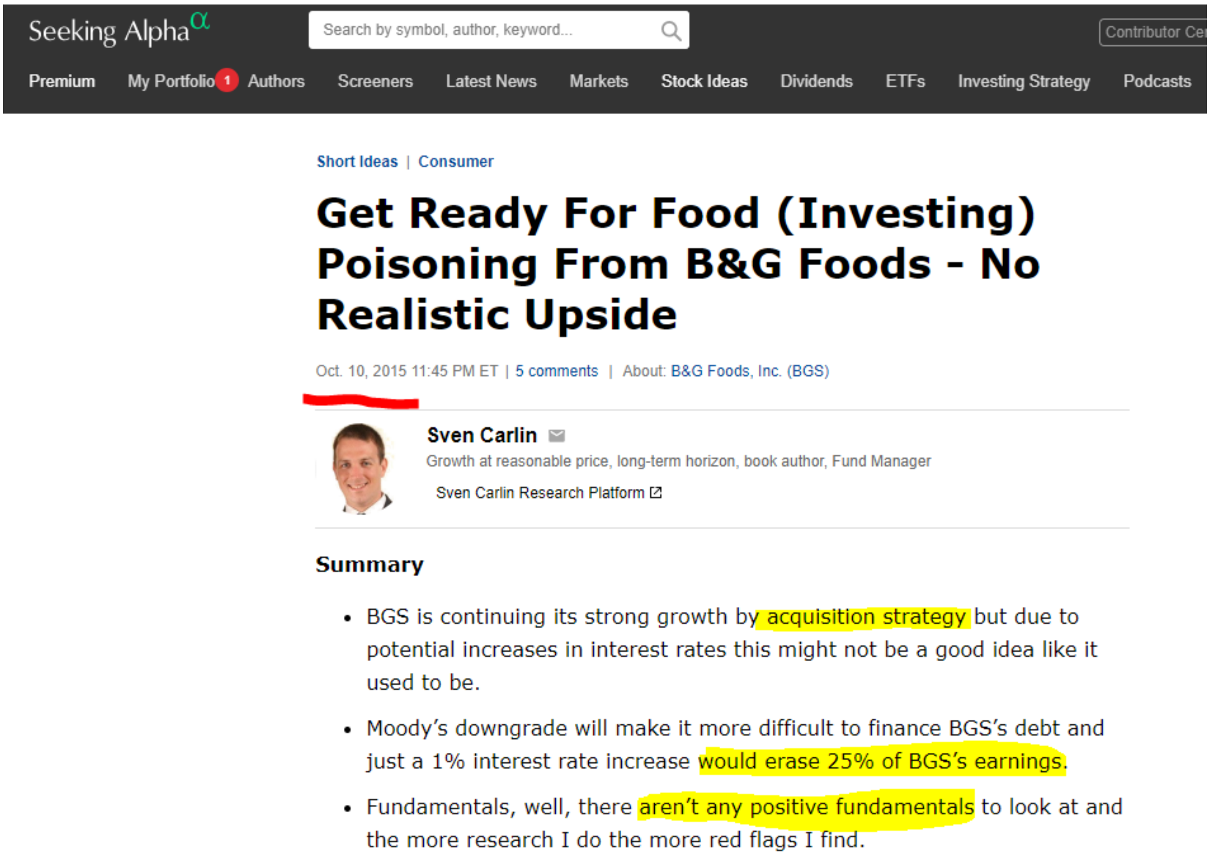
So, in practise? You want to look at companies and whether or not they're making serial acquisitions. Also, you want to look for companies that are regularly making write downs, or declaring regular ‘one off’ nonrecurring items. Also be wary of companies with large amounts of Goodwill on their books. Again, there might be a reason for it, but know the answers to the question, why?

This is important. Not only because they could be overstating their earnings but because they can really get hit hard in bear markets. Access to capital gets shut off when markets crash. The company can no longer finance it with debt.

For example, B&G Foods is a company that constantly grew by acquisitions.


It increased its goodwill from $1.8 billion in 2014 to $2.5 billion in 2018. However, it also doubled its revenues at the same time alongside constant dividend increases. The stock did extremely well, until it stopped doing great.

I remember writing an article in October 2015 how investors are about to get food poisoning from it. I was dead wrong for a year as the stock continued to go up, almost 50% only to end up as expected.




Short Ideas | Consumer

# Get Ready For Food (Investing) Poisoning From B&G Foods - No Realistic Upside

Oct. 10, 2015 11:45 PM ET | 5 comments | About: B&G Foods, Inc. (BGS)

**Sven Carlin**
Growth at reasonable price, long-term horizon, book author, Fund Manager
Sven Carlin Research Platform

**Summary**

- BGS is continuing its strong growth by acquisition strategy but due to potential increases in interest rates this might not be a good idea like it used to be.
- Moody's downgrade will make it more difficult to finance BGS's debt and just a 1% interest rate increase would erase 25% of BGS's earnings.
- Fundamentals, well, there aren't any positive fundamentals to look at and the more research I do the more red flags I find.

# Goodwill

I have mentioned Goodwill above, so I had better explain its importance to aggressive accounting. Goodwill is an intangible asset, recorded as such in a company's balance sheet. It is the difference between what a company pays for another company and the assets acquired. Under IAS 36 –Impairment of Assets, the goodwill on the balance sheet should be tested for impairment annually so that its value can be justified.

The main thing to remember here is that the goodwill must not be carried in the balance sheet at more than the amount that can be recovered from its use or sale, what is called the recoverable amount. If the carrying value in the balance sheet is more than the recoverable amount, it is said to be 'impaired', and this difference must be recognised as a loss in the income statement. This can affect profits. This is often referred to as a 'write-down'.

If there is no market for the goodwill asset and it cannot be sold, the value is calculated by determining future cash flows and discounting them at an appropriate rate in order to arrive at a present value. Similar to the advice on future revenue streams, always read the footnotes to check if this % discount rate is realistic or appropriate. Be wary if the value keeps changing over the years. This might be a sign that too much was paid for the acquisition.

## Capitalised Costs

**Keep an eye on real costs**

One way to make costs disappear is to change them into something different by calling them assets. In very simple terms, when your company spends 10 million dollars developing software or installing a new machine, this is called a ‘cost’ to the company. Once they start using it, for example plug the machine into the electricity, that electricity is an ‘expense’ or operating cost. Costs and expenses are recorded differently in accounts.

Despite having ‘spent’ 10 million on developing software or a new machine, this cost is listed as an asset. As a result of this 10 million dollar asset, the company’s profits can look healthier than they actually are. Over the years, the cost is reduced by it being amortised (written off over time). This is cost is why Warren Buffett talks about considering R&D an expense, rather than a cost.

Amortisation can be open to interpretation or reappraisal. Especially with Intangible Assets, which can be hard to define. After all, the true price of a machine (a tangible asset) is easy to find, just look it up in a catalogue. But intangible assets, such as R&D on new software is harder to cost. What price do you put on a room full of computer nerds!

By looking in the footnote, under International Accounting Standard (IAS) 38 – Intangible Assets, and by comparing a couple of years of figures you can see if there have been changes to fair value of the asset or the rate at which something is amortised. Sometimes it has never be amortised in the first place!

For example, should the costs of new software really be written off. over 10 years, (more likely 3 years would be better). Or why has it been appraised yet again?

Any changes will affect profit, normally badly.

The overriding lesson on intangibles included in a company's annual report is that they cannot be precisely assessed or defined. Because of this, they offer great scope for companies to massage their profits (up or down) and so are always worth looking at with care in an annual report.

**Big increases in capitalised costs, especially internally generated ones, and long-term receivables are often warning signs that earnings are being overstated.**

## Management

**Characteristic to look for**

These are certain companies in which fraud is a greater risk. It's best just to try and identify them straight off and avoid them. There are numerous studies out there with different charts and statistics, but again, it's often just common sense.

I am guessing we have all had bosses that are idiots and bullies. But, as an investor I would be careful where a company has an autocratic management style. Look out for executives who act like dictators, especially when they appear to exercise a great deal of control over the direction of a company. Be especially careful when these bosses are being promoted in the press as geniuses or gurus. They rarely are. The problem being they begin to believe their own publicity and when things go wrong, they have to take steps to maintain performance.

In an ideal world, upper management of a company should provide a system of checks and balances for one another together with a strong Board of Directors. In practise, I think what really happens is the dictator gets their own way, people quietly move on to other companies or they just take the pay cheque and keep their head down.

At best, they will quietly drift away, leaving you carrying the can. Similarly, employees and management that tend to make mistakes don't get fired in a blaze of publicity, they will discreetly resign and move on to other companies.

Be wary when management, especially on the finance side leaves, or there is a regular turnover of staff.

So, as far as management are concerned, research them, research how they know each other, research how much they get paid and research how many shares they have. Do they have skin in the game? I would also add further a warning on family firms, best explained with a scenario...

Daddy runs a company for 40 years; he builds it from the ground up. The company is solid, dependable, no debts, an excellent firm, with a good reputation. He retires.

The son or daughter takes over. They get their brother-in law and best friend from school on to the management board. Some elder board members retire with the father. The board now agrees with everything that is said by the new chairman.

The company announces a change in direction, issue more shares, increases borrowing and then grows by aggressively acquiring other firms, six or seven a year for a number of years.

Every year at the shareholders annual meeting they trundle out the retired old founder to sit in the background and show continuity.

The company sponsors a large sporting event to raise its profile. The sport is a favourite of the chairman. It also sponsors the chairman’s talented son in his efforts to become a racing driver. Family friends are awarded contracts, paid consulting fees. Obscure deals are done. Eventually everything is a big mess and it goes wrong or growth stops.

The moral of this story - avoid family firms. They are loyal to themselves, not you, the shareholder. Plus, always research the management. LinkedIn is a very good tool. Business is a small world, they follow each other around.

## Auditors

**SILENCE IS GOLDEN**

Finally, don’t expect institutional investors and auditors to shout from the rooftops that they know a company is in trouble. Especially in Emerging Markets where the experience of auditors might be lacking or local loyalties are an issue

I think it is fair to say - History shows us, never, ever expect auditors to uncover fraud or potential problems. Do not rely on auditors for anything. This is the safest approach to take.

It would be easy to criticise auditors, like PwC, KPMG etc. After all the process of auditing seems like it should detect fraud. But there are a number of reasons why this is not the case.

First, auditors do not check everything with a company. Auditors only ever sample a company's transactions based on their assessment of internal controls and procedures within the company. If the auditors think that there are controls and that they're effective, they will do less testing of the transactions.

Similarly, another reason why audits fail to detect fraud is because of predictable audit tests. It is common for auditors to perform the same audit tests year after year. Often, they focus on the same accounts or the same types of transactions. This makes sense, for the auditors, as work usually focuses on the riskiest areas of the financial statements and the areas of risk at a company are often the same from year to year. However, when employees know exactly which risks and which accounts will be targeted by the auditors the effectiveness of their audit testing goes down.

Also, audits often have one fatal flaw. They follow a template. Auditors will often concentrate on how processes are carried out. How things are recorded, are invoices correct, do the figures add up? Is someone in accounts stealing from the petty cash? They forget that the figures might be made up in the first place. Younger auditors perform the bulk of work for the financial statement audits. They often don't know what questions to ask and they may be reluctant to ask difficult questions or to challenge management's answers.

But, it all boils down to money. Auditors charge a fee, they want to make a profit. The less time they physically spend doing the work, as opposed to how much they charge, the more money they can make doing something else. You get what you pay for.

However, there are red flags concerning auditors.

One red flag is divided loyalty. Auditors can charge certain amounts for their audit work, but look in the footnotes for additional income made from non audit work, tax advice, consultancy etc. Are they quietly making money on the side? Or, are the auditors also employed as board members! Not likely to happen? As an example, please read the Muddy Waters report into a company called Sino Forest, a Chinese firm found to be fraudulent. Five partners in the auditing company were directors (Sino Forest are mentioned more in part two).

Finally, a change in auditors is a big deal. Not only does it cost a lot for the company both in terms of the money they're going to spend changing and the costs in time commitment it takes to switch auditing firms.  But more importantly, you have to ask why a company is changing auditors?  There could be plenty legitimate reason but sometimes a change in auditors can signal problems. Perhaps, for example, there is a disagreement about the treatment of significant items on the financial statements or maybe the auditors are even aware of improper accounting practices that the company is engaged in. When a company changes auditors is it a signal of bigger problems?

## Part One Conclusion

That’s a lot of information, but it is just a start. There are so many things that you could look for, too many to talk about here. So, here are a few brief bullet points of other things:

- Look for pension fund assets being changed to liabilities
- Look for high leverage, poor cash flow, increased use of debt and new share issues
- Look for receivable taking longer than a year to pay back

- Dividends not supported by earnings
- Look to leverage going up, look to the covenants
- Look to companies talking of ‘underlying’ profits, not real profit (they exclude bad news, plant etc)
- Look to deferral of selling costs, example, introductory customer discount can be accounted for as a capital cost incurred recruiting customer and listed as an asset written off over time
- Look to regular exceptional items turning up each year
- Look to being too optimistic about the amount owed by customers and its recovery.

As I said at the beginning, this can only be a brief overview of some of the areas you need to pay attention to. But I think you can see that attention to detail and asking questions are probably the best way to save yourself money.

If I was asked to give one piece of advice on how to spot aggressive accounting it would be to always read the footnotes and look for changes in reporting policies. Whenever there is a policy change it may not be fraud but it will affect figures. You don’t need to be able to apply complex accounting rules, you just need to understand changes to policy will often affect earnings.

# Part Two

I'm a firm believer in Occam's razor – the simplest answer is probably the right one

In this second, shorter, part my aim is to build on part one and illustrate a few examples of fraud and aggressive accounting. In part one we looked at how to manipulate earnings. In part two, however, the focus will be on how someone might go about trying to quietly remove your cash from the company. Normally to feather their own nest.

To help me do this I intend to give a few examples. These examples are taken from the files of the hedge fund Muddy Waters. Many of you with an interest in investing would have heard of this company. They are famous for shorting companies, where they claim to have identified fraud and exaggerated earnings. They've made a lot of money doing this and specialise in Chinese companies, where often outright fraud has taken place and later regulators step in shutting the company down.

Before I start, however, let me just state here for the record. I consider the vast majority of Chinese companies to be hard-working, honest and competitive. I am long some Chinese companies. So, to me, the viewpoint 'because a company is Chinese it is a fraud' is completely wrong. Many other nations have their own problems with fraud, just check out the Muddy Water website if you don't believe me. But, recently I've spent a lot of time looking at [Chinese stocks listed through Hong Kong and New York](). This led me to examine the files of Muddy Waters. So, I thought it would be an opportune time to incorporate this into a report on aggressive accounting and earnings manipulation.

I suggest if you have the time you read the free research contained on the Muddy Waters website. I must say I’m very impressed by their work and diligence. Short sellers sometimes get a hard time in the press. But it cannot be denied hitting someone in the pocket is probably the best way to tackle greedy and unscrupulous people. Obviously, there is an element of self interest in Muddy Waters. But praise where praise is due. Excellent work from Muddy Waters. Does it mean it’s true? Only you can decide.

So, in part two we will be looking at a few other ways someone might use to try and remove cash from the company. We will also look at some of the techniques you can use to spot this happening. The main areas we will be looking at are:

- Importance of independent research and verifying facts;
- Disclosed third-party transactions;
- Joint ventures;
- Attempts to move things off balance sheet;

My main thoughts on the success of Muddy Waters is a lot of it comes from verifying what is being said. By researching Disclosed Related Party Transactions or rather from uncovering where they are missing. By researching relationships between company directors and other customers, by digging deep in joint ventures and official paperwork etc. they discover where links exist and earnings are exaggerated.

## Verify

**Just because something is written down, doesn't mean it's true.**

Sorry to break it to you but people often don't tell the truth, or are mistaken - honest, or perhaps I'm wrong!

Try whenever possible to independently verify any details you don't understand, claims made, or people you don't know. Many things on the internet related to investing are lazy journalism, a 'pure cut and paste' from company press releases, or some guy pushing crypto cannabis stocks, but a lot isn't. For example, World Bank academic reports stating projected industry wide production costs, independent analyst reports on estimated earnings, or local newspaper articles on the tax affairs of the chairman in charge of a company! So, if Tesla says it's going to sell 500,000 more cars in 2020. Independently verify...what does the rest of the industry predict for 2020? Why should Tesla be any different? Don't believe it because it's on CNBC or in a company's report.

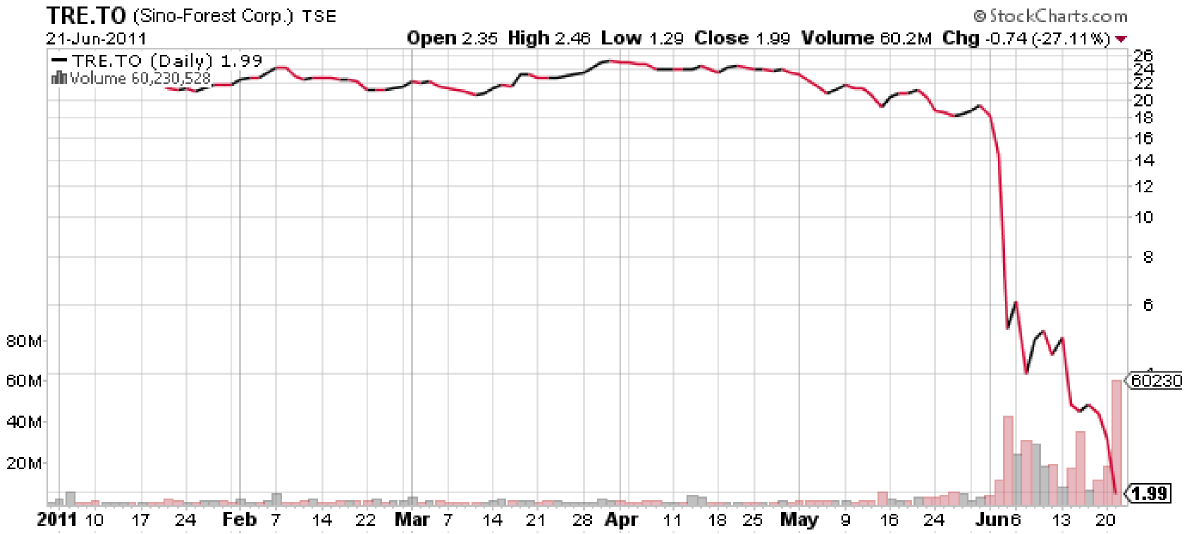

This might sound obvious, but trust me, people don't check!

A few examples from Muddy Waters illustrating this point. First - probably from their most well known China Fraud short, Sino Forest, ticker symbol TRE.

Sino Forest (TRE) was a Chinese company that became a Canadian Company, via a reverse merger with a shell company (see the film 'The China Hustle" for more info on reverse mergers). It was an out and out fraud. But, as part of that investigation Muddy Waters independently verified the amount of wood TRE claimed to be buying, getting chopped down, shipped etc.

By carrying out independent verification, via government quotas and local figures, Muddy Waters uncovered that the USD $231.1 million in timber from Yunnan province TRE claimed to be selling was false. It exceeded government harvesting quotas by six times the real amount for the whole province! They found that transporting the harvested logs, which were to be cut down by men using hand axes and manually dragged out of the Forest, would have needed over 50,000 trucks, driven on small two-lane roads winding through the mountains in a remote region of China.

In other words TRE were making the figures up and people didn't bother to check - well, except Muddy Waters!




## Another Example of Verification - RINO

RINO, another Chinese firm shorted by Muddy Waters.

RINO claims to be the leader in selling desulfurization ("FGD") and other environmental equipment to Chinese steel mills. It reported 2009 revenue of USD$193 million. In reality, Muddy Waters claims, its revenue is under USD$15 million, and its management has diverted tens of millions of dollars for its own use. Muddy Waters valued RINO based on the cash remaining in the company.

Again, through independent research, verifying what people claim in their annual reports, they found RINO was not the leader it claims to be in the 'steel sinter FGD system industry". It was an obscure company, not known by the main players and when it was known at all, it was for one to two failed projects. Yet it claimed gross margins of 35% to 40% on its FGD projects. These margins are far in excess of those of the leading companies in the industry (generally less than 20%). Its circulating fluidized bed ("CFB") FGD technology was sub-standard in the China FGD industry.

You might argue, these are Chinese companies, you don't speak Chinese, you're not an expert in steel or forestry. You're not an expert in Chinese sulphur emissions etc.

But, you might be surprised how much info is easily available, in English or your own language and written by independent industry experts via, trade magazines etc. Or how good Google Translate can be!

Can you be expected to fully understand that "RINO's CFB method has a low sulfur reduction rate compared to the wet method"? Maybe not, but many of you seem to be happy to invest thousands of dollars in a company based on the fact that they are cheap, without even trying to look into why that might be.

To illustrate my point, genuinely I promise, a few minutes search on Google using the keywords FGD STEEL INDUSTRY revealed the following

https://www.epa.gov/sites/production/files/2015-12/documents/ironsteel.pdf

This is a 78-page report produced by the US Environmental Protection Agency on Greenhouse Gases and the steel industry, it tells you all about FGD.

Here's another report

https://www.e3s-conferences.org/articles/e3sconf/pdf/2019/44/e3sconf_icaeer18_01014.pdf

A report in English, entitled "Research on evaluation indicators system of operation performance for desulfurization denitrification and dedusting equipment in key industries" written by the China National Institute of Standardization, the Institute for Thermal Power Engineering (ITPE) of Zhejiang University and Institute of Process Engineering, Chinese Academy of Sciences.

## Verify The Figures In The Statements

We will carry on using RINO as an example of the importance of verifying. And why you don't need to be an accountant or Chinese.

In part one we discussed how it might be a good idea to look at competitors to look across periods of time and to examine how one line item affects another and how different ratios work together. This is called Sector Analysis, Horizontal Analysis, Vertical analysis and ratio analysis. We mentioned it in Part One.

We discussed how if one figure in a set of financial statements goes up or down it will have an effect elsewhere, that is why they are called balance sheet. We also mentioned how certain figures move in tandem and that looking at inventories was important for signs of manipulation.

Here's an example, from RINO of how this can happen, how to check this might be a problem. It again the point is verify:

Raw materials are one of the best ways of gauging a manufacturer's output. They will be listed under inventory.

| **RINO** | **FYE 12/31/07** | **FYE 12/31/08** | **FYE 12/31/09** |
|---|---|---|---|
| Contract revenue | 42,073,308 | 119,920,874 | 187,473,072 |
| *YOY Increase* | | *185.0%* | *56.3%* |
| Raw material | 178,480 | 223,168 | 246,798 |
| *YOY Increase* | | *25.0%* | *10.6%* |
| Rev / raw material | *235.73x* | *537.36x* | *759.62x* |

RINO's raw material balances have not grown in line with sales.

Muddy Waters then compared the RINO revenue to raw materials ratio against its main competitors.

| | FYE 12/31/08 | FYE 12/31/09 |
|---|---|---|
| **Long King (USD)** | | |
| Total revenue* | 425,788,149 | 446,592,904 |
| *YOY Increase* | | *4.9%* |
| Raw material | 20,438,957 | 33,268,451 |
| *YOY Increase* | | *62.8%* |
| Rev / raw material | *20.83x* | *13.42x* |
| **Fei Da (USD)** | | |
| Total revenue | 248,066,517 | 224,630,085 |
| *YOY Increase* | | *-9.4%* |
| Raw material | 20,438,957 | 15,457,753 |
| *YOY Increase* | | *-24.4%* |
| Rev / raw material | *12.14x* | *14.53x* |

* Excludes revenue from property sales, leasing, and managmeent.

Long King and Fei Da generated 2008 and 2009 sales no more than 21x raw materials (versus RINO's 2009 figure of 760x). Plus, think about it, RINO must have a pretty large warehouse. It holds roughly 7 times more raw materials than its larger main competitors!

## Another Example - TAL Education

Muddy Waters has shorted another Chinese stock, this one listed on the NYSE. TAL Education, a Chinese online provider of education services. Putting aside any other findings by Muddy Waters relating to lies, asset parking, third party transactions, common control, in basic terms, TAL was involved in another online company called Shunshun. TAL ultimately valued its investment gains from the company at USD$27.1 million on its earlier investments, and later $105.9 million (from an initial valuation of $35.1 million in under a year). They consolidate up to an estimated additional USD$24.8 million of pre-tax profits.

Shunshun's founder, Du Zhang, was 19 years old when he left Washington University without graduating to become a tech entrepreneur. Shunshun's original website appears to have launched the following year, in March 2015 – only four months before TAL got involved. Du Zhang's previous attempts at a website business had failed.

https://www.asianentrepreneur.org/shunshun-liuxue-a-new-way-to-get-into-american-top-universities/

When Muddy Waters carried out a web search on the 19-year olds website, it found TAL Education overseas study website had been generating traffic since 2011. Through the first six months of 2015, it had been generating from 61,900 to 87,800 sessions per month according to rank2traffic.com estimates.

In contrast, Shunshun's site, generated an estimated zero sessions per month as of March 2015, according to rank2traffic.com.

So, TAL Education claims to have made a USD$ 24 million dollar profit from a website set up by a 19 year old college dropout (probably from his bedroom), a website that had only been up and running for 4 months before they got involved. A website that had no one looking at it.

For those of you interested, as an aside -Shunshun hired a new chairman and CEO just prior to TAL's investment, Yang Zhang. He joined Shunshun in June 2015. His tenure was not long, it appears he left after only a short period. Whilst he was there, he was granted 50% of the shares in Shunshun. He transferred these shares to a company controlled by his wife. These shares were bought by TAL Education for USD$36 million. Shortly afterwards his wife's company was delisted.

Enquiries by Muddy Waters indicate Yang Zhang and his wife are currently on a luxury world tour. They didn't want to speak to Muddy Waters!

More importantly, information like this can be found out free, with just a little work.

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Here's TAL Educations current web traffic, for your info…

https://www.alexa.com/siteinfo/100tal.com

Enough free to get an idea of how many people visit the site etc. Not perfect, but, better than nothing. Other sites available.

Does the market care? Well, why ruin the party while the stock keeps going up?


Can't be bothered, too much like hard work? My reply is - How much time and effort did it take you to save up say, the 10 thousand dollars you are looking to invest. A while? So why are you in such a rush to lose it?

Here's a website which looks at Hong Kong listed stocks. The site, allows you to see annual reports etc and indicates links between Directors. The sites aim is to highlight fraud and carries regular news items carrying the views of the editor. It might be slightly biased, but it's a useful resource.

https://webb-site.com

Verify.

## Disclosed Related Party Transactions

In part one, we discussed the importance of reading the small print, footnotes in annual reports announcing policy changes or how an amount is calculated.

One important footnote, required before the accounts can be signed off, under International Accounting Standards is IAS 24 - disclosed related party transactions. It's where a transaction takes place and that transaction is related to a key management figure. THIS FOOTNOTE IS A BIG RED FLAG.

Rules for Related Party Disclosures insists on disclosures about transactions and outstanding balances with a company's related parties. Related parties can be a person and/or an entity. Typically, this is defined as a person or a close member of that person's family related to the company filing the report,

An entity is also related to a reporting company if it is a member of the same group, or is an associate or joint venture of the other entity (more on joint ventures later).

Probably most companies do not collapse because of related party transactions, but their disclosure in the companies' annual reports should be a big warning sign.

In my opinion, when it comes to fraud and aggressive accounting, small things lead to bigger things. Small things found in a report can indicate hidden, more dangerous problems.  The main one being a general arrogance and use of company resources for personal gain.

There may be a genuine reason why, for example, a CEO chooses their wife's company to supply 50 million dollars of 'brand awareness' advice. But if and when they are disclosed, it is always worth looking to see if they give pause for thought. Similarly, there might be a good reason for a CEO being granted a 10 million dollar personal loan at zero percent interest, first payment in 20 years' time. But again, it might be an idea to check first.

Remember, the purpose of part two of this report is to illustrate ways of removing money from a company. What better way than just awarding yourself big contracts for little or no work, or giving yourself a 'loan' at zero percent, never to be paid back, written off at a later date. That is why Related Party Disclosures are important.

There is nothing wrong with putting the family first, but we are not talking about family here. We are talking about publicly traded companies, not someone's personal piggy bank.

**To be fair, Muddy Waters, through extensive work often finds a number of major transactions that have never been disclosed, but should have. But where a company does disclose, we have to be very, very careful.**

## An Example of Third Party Transactions - DGW

Muddy Waters shorted Duoyuan Global Water Inc. (DGW) in 2011. At the time it had a Market Cap of USD$ 135.11 million. It claimed a revenue of USD$154.4 million.

Muddy Water estimated DGW's actual revenue to be no greater than US$800,000 annually, Muddy Waters caught DGW red handed forging its Chinese auditors report and found DGW was making undisclosed related party transactions transferring money to its chairman.

Ok, you might say, "yes, but Muddy Waters has forensic accountants, millions of dollars, I don't know what I am looking for"

But, for those who could be bothered to read, in its 2008 annual figures. DGW declared a related party loan repayment as a cash flow from operations. A repayment by company Chairman Guo repaid of RMB 43.8 million (USD$ 6.4 million) in loans DGW made to a company Guo controls, Beijing Huiyuan Duoyuan Digital Printing Technology Institute ("Huiyuan").

This was the first ever mention of a large loan that had already been made. It was reported, clearly visible. It was reported, because, probably, the Chairman wanted the company to look attractive via its cash flows at the time of its IPO.

As an investor, you just need to look. No training needed, just the ability to read and think. Ask yourself - do you want to invest in a company where the management put their hand in the till whenever they want?

On a separate point, the only remotely accounting part of this transaction you need to understand is, the proper classification of the loan repayment is a cash flow from financing activities, rather than cash flow from operations. The chairman was not only taking money from the company for his own purposes, but when he paid it back, he was falsely boosting its operating Cash Flow.

## Another Example - RINO Again

As part of their extensive look at RINO, Muddy Waters found that on the same day a USD$100 million loan was negotiated, senior management of RINO, Mr. Zou and Ms. Qiu, 'borrowed' USD$3.5 million. They used some of this cash to purchase a luxury home in Orange County.

Here's a picture, nice - six bedrooms!

https://www.redfin.com/CA/Coto-De-Caza/31232-Via-Colinas-92679/home/5054824

RINO disclosed the “loan” for the first time in its 2009 Form 10-K, filed in March, 2010. The notes to the 10-K state that Zou and Qiu borrowed “approximately” $3.5 million, and had repaid $300,000 by the time of filing.

Again, you don’t need to be a forensic accountant to read in a 10K that management have ‘borrowed’ money from the company. It will be listed in the footnotes under disclosed third-party transactions.

As an aside, Muddy Waters seems unsure if, due to events and the haphazard means of accounting for this loan, whether the couple volunteered that they had taken the money; or, whether the auditor uncovered it just before the filing deadline.

The fact that a home was bought with the loan is less well known. It appears to have come to light when the couple registered the deeds as security. Muddy Waters did it’s home work!

Shareholders (you) bought them a nice new house.

Finally, RINO claimed that the couple repaid the loan by early May, 2010; however, the home title was not re-granted to the couple by RINO until sometime between late May, 2010 and August 2010.

Whatever, who cares, they were dipping their hands into the till.

# Joint Ventures

JOINT VENTURES appear especially prevalent in China, where until very recently it was impossible for foreign firms to have a controlling interest in businesses in the country. A large number of these joint ventures originally tended to be with State Owned Enterprises (SOEs). Not a bad idea in the early days of China's economic development.

The rules covering Joint Ventures are covered by IAS 28.
For accounting purposes, when a company holds over 20% of the voting stock of an associate company (the joint venture) the company records such investments as an asset on its balance sheet. The percentage share of the company's net income (or loss) is reported as a line item in the income statement.

For our purposes, I would suggest being more worried about a loss. This indicates money leaking out of the main company, via another business. Perhaps into the pockets of family and friends of the CEO.

The main issue with Joint Ventures is that it moves details of how a company is operating and earning money, ‘off balance sheet’. You cannot immediately tell from the financial statements in front of you what is happening.

Be especially careful if the majority of a company’s profits (or losses) come not from the core business, but from a joint venture. This is common sense, if you think about it. You do not want to be investing in a company where the majority of business appears to be done by someone else. Again, be careful, if the joint venture is with a Limited Liability Partnership (LLP) rather than another public company. These partnerships have looser governance rules.

Another obvious issue with Joint Ventures is going to be who you're doing business with. A joint-venture with a large company, for example, BMW might not raise too many concerns. However a joint-venture with an obscure private company might. The reason - it's harder to tell what's going on. Especially with small private companies, often with similar or confusing names, held offshore. The point being, you cannot see clearly what is going on.

Joint Ventures can also be used to exaggerate earnings. One way to do this is to move money in a circle. An illustration of this would be, one year firm A supplies (gets money from) from firm B for goods worth 20 million dollars. The profits of the main company rise. The very next year firm A announces it will be investing over a number of years, 20 million, into firm B (slowly gives the money back).

## A Joint Venture Example From Muddy Waters - TRE

Apologies for this example, it's at first sight it appears slightly complicated. So, I will try to simplify the main points. It involves Muddy Waters most famous fraud discovery, Sino Forest, ticker TRE.

China has two classifications of Sino-Foreign joint ventures (bearing in mind TRE was a ‘Canadian’ company): equity joint ventures (‘EJV”) and cooperating joint ventures (“CJV”). The main difference is that in an EJV, profits and assets (upon winding up) are distributed in proportion to equity holdings. In a CJV, the parties can make a contract to divide the cash disproportionately to their equity holdings.

Between 1994 and 1996, TRE claimed it generated between 65% to 77% of its reported revenues from an equity joint venture with a local organisation called Leizhou Forestry Bureau. However, extensive research by Muddy Waters found this to be false. Leizhou Forestry Bureau was in dispute with TRE and never got anywhere near it originally proposed.

In fact, Leizhou Forestry Bureau officially complained about its lack of support and investment and filed with the Zhanjiang City Foreign and Economic Relations and Trade Commission (“COFTEC”) a letter containing numerous grievances. The Venture was wound up.

TRE then claimed that the Leizhou Forestry Bureau reimbursed TRE USD$12.43 million between 1999 and 2003 through a series of payments consisting of logs. This claim that the Forestry Bureau owed TRE in excess of $10 million dollars was a gross exaggeration of the facts and contradicts the EJV’s SAIC file, improperly adding $12.43 to TRE’s shareholders’ equity.

TRE converted the company to a wholly foreign-owned enterprise (“WFOE”). The WFOE’s business scope included “producing and selling wood products.” TRE wound this company down in December 2003.

## ‘Off Balance Sheet’ Can Be a Bad Idea

Let’s carry on with this story to illustrate, via TRE, why ‘off balance sheet’ can be bad.

2003 is the same year TRE began telling investors that it used ‘Authorised Intermediaries (AIs) to handle its sales because it results from the Joint Ventures were low.

TRE claimed to be processing over one billion dollars in sales through AIs at one point.

TRE avoided disclosing the identities of all but one of its AIs “for competitive reasons.” The one AI it did disclosed (at an analyst event in April 2011) was actually a connected party and should have been declared as such on the financial statements. Another warning sign.

To quote Muddy Waters:

‘According to the description in its 2006 annual information of how these transactions worked, TRE (through the magic of AIs) booked revenue and profit, but

• did not commit capital to purchase the logs,

• did not enter into contracts to purchase the logs from suppliers,

• did not take title to the logs,

• did not at any time store (let alone view) the logs,

• did not commit capital to process the logs into wood chips,

• did not contract to process the logs into wood chips,

• did not market the wood chips,

• did not enter into contracts to sell the wood chips, and

• did not receive cash from the parties purchasing the wood chips.

Instead it “agreed to reimburse the costs of the AI, including the cost of the purchase of raw timber, and to pay both a processing fee and management fee...”

For this service, the AI paid TRE a fee on a “net basis after withholding of applicable taxes by the AI.”

If you are confused here, let me simplify and explain.

In other words TRE quite clearly stated, for anyone to read in its 2006 financial statements, that Sales were made with the help of people outside the company (who they refused to identify), people who despite being a wood company TRE never bought logs from or any other wood based products, people with whom TRE never entered into contracts or gave cash to.

In this way of ‘not doing business’ with anonymous people, TRE claimed to be making a billion dollars of sales. Most importantly they made a billion dollars of sales and never paid any taxes.

TRE had a Market Cap of USD$4.2 Billion dollars in 2011, when Muddy Waters first wrote about the company. That’s a lot of shareholders who never read the financial statements.

The important lesson here, always read the statements and be very careful when a company makes profits or losses, via individuals or entities held ‘off balance sheet’.

## Conclusion

Muddy Waters did an excellent, laborious job identifying issues with these companies. They should be congratulated. What Muddy Waters achieved did involve experts and hours and hours of work. I have simplified things to make a few points. But the reality is Muddy Waters achieved its success through two simple principles, they verified to see if what a company said was true and they paid attention to the details. Everyone can apply these principles.

## Recommended Reading

For those who want to know more about the subject of fraud and aggressive accounting a good starting point is the book, The Signs Were There, by Tim Steer. Highly recommended.