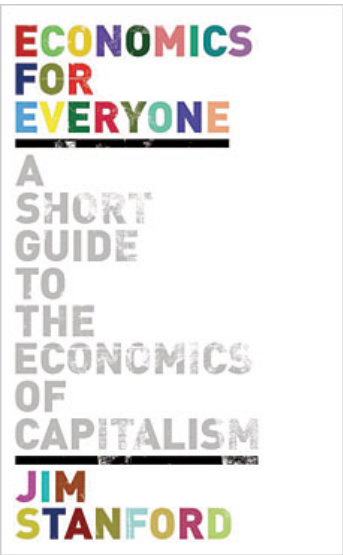
A "HOW-TO" GUIDE:

FINDING AND ANALYZING CORPORATE FINANCIAL STATEMENTS



By Jim Stanford

Introduction:

Private, profit-seeking companies play a dominant role in capitalism. It is their quest for profit that motivates investment and production. And it is their ownership of our workplaces, and the machinery and other tools in them, that allows them to control production and oversee most work. The nature, behaviour, and ownership of private companies is introduced in Chapter 7 of *Economics for Everyone*. Other chapters worth reading in conjunction with this guide include Chapter 12 (on business investment decisions) and Chapter 18 (on how private companies are financed).

Corporate financial statements are an invaluable source of information for trade unionists, community researchers, and anyone else conducting independent research on private corporations. Official financial statements provide a useful and generally accurate overview of a company's business dealings (indeed, government securities regulators in most countries have tightened the standards for these official statements considerably in recent years, as a result of recent corporate accounting scandals), and can provide progressive critics of that corporation with many useful arguments. And with the advent of on-line financial reporting, it is now easier than ever to obtain company financial statements – at any time of the day (or, for many hard-working activists, any time of the night). This guide will provide a short introduction to corporate financial analysis for progressive researchers and activists.

Definitions:

Here are simple definitions for a few of the terms used in this "how-to" guide:

Corporation: A corporation is a form of business established as an independent legal entity, separate from the individuals who own it. A major benefit, for the owners, of this form of business is that it provides for *limited liability* for its owners: potential losses resulting from their ownership of the company (should it lose money, face legal difficulties, or experience other problems) are limited to the amount initially invested by the owners. The owners' other personal wealth is kept separate and protected from claims against the corporation. The corporation is thus well-suited to the *joint stock* form of ownership. Corporations whose shares are bought and sold on a public stock market (also known as *publicly-traded corporations*) are required by securities regulators to publish regular financial statements and other information about their operations.

Equity: This is the proportion of a company's total assets which are "owned" outright by the company's owners. A company's equity is equal to its value less the debt owed to bankers, bond-holders, and other "non-owning" lenders.

Capital Gain: A capital gain is a form of profit earned on an investment by re-selling an asset for more than it cost to buy. Assets which may be purchased for this purpose include stocks, bonds, and other financial assets; real estate; commodities; or fine art. Corporate shareholders receive a capital gain when the market value of their shares increases over time – perhaps due to growth or improved profitability of the real business, or perhaps just because of a speculative rise in the overall stock market.

Dividends: Many companies pay a cash dividend (quarterly or annually) to the owners of its shares. This is an enticement to investors to purchase that company's shares, and represents a way of distributing some of a company's profits to its ultimate owners.

Private Equity: This is a form of business in which the company's entire equity base is owned by one or a small group of individual investors. Under the private equity model, the company does not issue *shares* onto the *stock market*, and hence is not usually required to release public financial statements or comply with other securities regulations. Private equity firms are generally considered to be more ruthlessly focused on generating shorter-term cash profits from their operations than *joint stock* corporations.

Profit: This is the surplus left over after a company sells its output, and pays off the cost of production (including labour costs, raw materials, and a depreciation allowance reflecting wear and tear of its capital equipment). Its calculation is: revenue – cost = profit.

Retained Earnings: Business profits which are not distributed to shareholders (through dividends or other payouts), but instead are retained within the company in order to finance future investment or other expenditures, are called "retained earnings."

Stock Market: A place where *shares* of *joint stock* corporations are bought and sold. Most modern stock markets no longer have a physical presence, but rather consist of connected computer networks.

How to Obtain Corporate Financial Reports:

A crucial distinction between two basic types of corporations must be kept in mind when trying to obtain corporate financial statements. *Publicly-traded corporations* (not to be confused with *publicly-owned corporations*) are those whose shares are traded on a public stock exchange (like the New York Stock Exchange, the Toronto Stock Exchange, the London Stock Exchange, and others around the world). Because they have sold shares into the public market, these companies are obliged by securities regulators (public officials who monitor and regulate the actions of the stock market) to disclose various types of corporate information, in order that investors in those shares are at least somewhat protected against unethical behaviour and scams.

Private corporations (again, not to be confused with *privately-owned corporations*) are those which do not offer their shares for sale on a public stock exchange. They are owned by a single investor, or by a small group of usually tight-knit investors (such as members of a certain family). Private corporations are not obliged to release their financial statements, executive compensation, or other internal data, and hence it is usually much harder to obtain data on these companies. Unfortunately, this means that many companies are allowed to keep their financial statements secret. For example, most small businesses are private corporations. Many subsidiaries of global multinational companies are also private (since they are usually owned 100% by the parent firm, and hence the subsidiary does not independently offer any shares for public trading); while the foreign parent firm is probably itself a public corporation (meaning you can obtain financial statements on the operations of the parent firm), its public statements do not usually break out the separate profit-and-loss statements for national subsidiaries.

In recent years, *private equity* investment groups have taken over very large corporations (such as Chrysler Corp., Bell Canada Enterprises, Clear Channel Communications, and others), usually using large amounts of debt to finance the takeovers. Data on these large companies is thus impossible to attain, regardless of the importance of their actions to the overall economy and society.

Audited financial statements of any publicly-traded company are included in their annual and quarterly reports, which will usually be mailed on request from the company's head office (usually through the Investor Relations department). They can also usually be found in a good business library (such as a university business school, or a public reference library).

More conveniently, most public corporations post their basic financial statements on their corporate web sites (usually under the "About Us" or "Investor Relations" sections of their sites). Even better, securities regulators in some countries have established on-line repositories of financial statements of public corporations. The Canadian site is called SEDAR (www.sedar.com); the U.S. site is called EDGAR (www.sec.gov/edgarhp.htm). In addition to basic quarterly and annual financial statements, these sites also contain information which companies do not usually post on their own corporate web sites (including annual information forms, management proxy statements with details about executive compensation, and other compulsory securities filings).

Annual information forms (which in the U.S. are called "10-K" forms) are an especially useful source of additional information about a company's activities, its competitive position, its locations of business, and (sometimes) its labour relations (including number of unionized employees and which unions it deals with).

Most companies' annual reports will also publish (usually at the back of the report) an unaudited historical summary of the company's main performance indicators (typically for a 5-year or 10-year period). These summaries are a useful way to obtain data for a longer time period than is covered by the formal annual financial statements (which usually only provide 2 or 3 years of financial data for comparison). The historical summaries are not always contained in the SEDAR and EDGAR versions of filed financial statistics; you often need to download the company's full annual report (from SEDAR or from its own web page) to find this summary.

More recent breaking news about a company is available in company news releases. These are usually posted on each company's own web site (typically in a section called "Newsroom"), and are also commonly posted with news agencies (where you can search by company name or stock symbol). News releases also must be posted to securities sites (like SEDAR and EDGAR), but usually with a delay of 2-3 days.

Some particularly juicy additional information is provided in an annual management proxy statement which is mailed to shareholders, and also posted on the SEDAR and EDGAR sites. This proxy statement includes data on the shareholdings and compensation of directors and executives. The proxy statement also usually contains useful information regarding the total return (including both dividends and share price appreciation) that has been enjoyed by the company's shareholders over various time horizons, compared to the average total return of the stock market as a whole.

Understanding the Income Statement:

A company's *income statement* reports the revenues, expenses, and net profits of the company, over a certain period of time (eg. a year or a 3-month quarter). It is roughly equivalent to the annual budget of a government or organization. Some of the key indicators reported on the income statement include:

- ***Revenues*** are simply the incoming revenue flow, usually broken into different categories (reflecting the different lines of the company's business).

- ***Operating expenses*** include the expenses directly associated with the firm's day-to-day operations, including wages and salaries, benefits, supplies, parts, raw materials, rents and leases, etc. This is sometimes called the company's "cost of sales."

- ***Operating profit*** equals revenues minus *direct* operating expenses, *before* deducting certain overhead costs (such as interest expenses, R&D costs, restructuring charges, etc.) which are

associated with the firm's overall existence (rather than with its specific day-to-day operations). A strong operating profit is a sign of the inherent underlying profitability of the company's real business activity.

- ***Other deductions*** are then subtracted from the company's operating profit, to generate an estimate of its final bottom-line profitability. Two of the most important of these are interest costs and depreciation. Interest costs are the actual cash payments made to banks and other lenders (including bond-holders) from whom the company has borrowed money to finance its various activities. Depreciation, on the other hand, is an *imaginary* charge that reflects the gradual wearing out of the actual machinery, equipment, buildings, and other real assets which the firm uses in its business. The company doesn't actually have to "pay" anyone for this wear-and-tear, but it does have to recognize in its income statement the inevitable decline in the value of these assets.

- ***Special one-time charges*** are also sometimes deducted at this stage of the income statement, including one-time payouts for severance costs and other expenses associated with layoffs or downsizing, or one-time "write-offs" of capital value by companies who are experiencing chronic losses. In some cases, a researcher will want to analyze a company's profits *before* these special one-time charges, in cases where you want to demonstrate the continuing viability of a company's core business (a picture which can be clouded by one-time charges).

- ***Net income before tax*** equals the overall final profit of the company after all these various charges are considered.

- ***Net income*** is the company's final profit, after deducting a charge for income tax. If the company has generated a before-tax loss, sometimes the income tax charge is *positive*, since the company can set these losses against other profits (historical or anticipated) to reduce its tax payments; this is called a *tax recovery*. Some income statements will provide additional details on how this net income is distributed between different categories of the company's owners. For example, many companies have *preferred* shareholders, who may receive a special dividend out of the company's profits, before any remaining profits are ascribed to the company's other or *common* shareholders. But if it is the profitability of the overall *company* that you are interested in, not the well-being of a particular group of *shareholders*, then you will want to analyze the company's net income *before* any distributions to preferred shareholders.

A Special Note on Income Taxes:

Progressive corporate researchers are often interested in how much income tax a company has paid, sometimes to make a case that the company is not "paying its way" in society. As noted above, income taxes are reported on a company's income statement, as a deduction from before-tax profit. A company's investors are only interested in how much money the company makes after all corporate obligations (including taxes) have been paid, so they are only interested in after-tax net income. But progressives are often interested in what

share of social expenses (for social programs, infrastructure, etc.) is shouldered by the corporations who benefit from those expenses.

Be careful, however: What is reported on the income statement is a company's *hypothetical* tax liability, resulting from its operations for the previous year. But there is almost always a big difference between what the company *reports* as income tax on its income statement, and what it *actually paid* to the government for that year. This is because business accountants and the government use different methods for estimating the cost of depreciation of capital equipment and certain other costs, which all go into the calculation of corporate income tax liabilities.

Governments allow most companies to write off (or depreciate) the value of new investments, faster than they actually wear out (in physical or economic terms). Sometimes this occurs as a result of a deliberate government policy (what is known as "accelerated depreciation," which government hopes will encourage companies to invest more); sometimes it is simply the result of different depreciation formulas (for example, the government might specify "straight-line" depreciation, while the business accountants specify a "declining balance" method). The end result is that there is always a difference between what a company actually owes to the government in income taxes (according to tax law), and what the business accountants estimate the company would normally have to pay given their *own judgement* about the longevity of capital equipment, etc. Remember, the supposed goal of the financial statement is to provide investors with as accurate a picture as possible of the true inherent profitability of a company, so the accountants will be interested in how long a machine actually lasts – and less in how fast the government actually allows the company to write it off.[1]

Thus the amount that the company "charges" itself for income tax on its income statement is a hypothetical amount (just like the depreciation deduction is a hypothetical deduction). The amount of cash which a company actually paid the government is usually reported *somewhere else* in a company's annual report – either as a footnote to the audited financial statements, or as a supplementary table in the report's Management Discussion and Analysis section. Sometimes these reports on taxes paid will even break the tax payments down by jurisdiction. Remember, these tables typically report only a company's *income tax* payments; they do not usually include other taxes which a company pays (such as payroll taxes, sales taxes on purchased inputs, or capital taxes).

The distinction between what a company charges itself for income tax on its income statement, and what it actually pays to government, gives rise to one of the most widely misunderstood terms in corporate financial analysis: *corporate deferred taxes*. Companies, like individuals, are legally required to pay their taxes when they are due, and are subject to interest

[1] Of course there is a whole other branch of accounting, the tax accountants, whose job is to explore every possible loophole to allow companies to reduce their tax payments as much as possible, often using the most far-fetched and greedy reasoning possible. But that is a different task from the job of those accountants charged with describing the company's true profitability.

payments and legal action if they do not. Most companies pay their taxes fully when they are due. "Deferred taxes" do not refer to taxes which companies are "late" in paying. Rather, deferred taxes reflect the cumulative difference between what companies *think* they would normally have had to set aside (given their accountants' estimates about depreciation, etc.) and what they were actually required to pay under the tax law. If a company was required to pay less than it otherwise would have, its deferred tax liability (which is reported on its balance sheet, described below) increases. In essence, the company's deferred tax liability is a way of setting money aside for *future* years, when actual income taxes due will exceed the company's own hypothetical estimate of future income taxes – because by that time the company will be charging itself *more* in left-over depreciation than the government rules allow on its actual tax returns, and hence its actual tax liabilities will be *higher* than its hypothetical liabilities according to the business accountants' own best guesses about depreciation. Companies which have not invested much in new equipment in recent years, are already paying *more* income tax than their own accountants' estimates; for these companies, the deferred tax liability is *shrinking*. Some companies, in the note which reports on their taxes actually paid, will provide a useful step-by-step reconciliation of the hypothetical figure reported in the income statement, with the amount which the company actually owed.

Understanding the Balance Sheet:

A company's *balance sheet* lists all of the assets of the company: money in the bank, money that is owed to the company (accounts receivable), equipment, property, inventories of finished product, and raw materials on hand. It also lists the liabilities of the company: money that is owed to others, accounts payable, and other debts. It lists this information for the company at a certain *point* in time (eg. usually the last day of the period covered by the report – such as December 31). Where the income statement gives a summary of a company's inflows and outflows over a certain time period, the balance sheet provides a "snapshot" of a company's underlying financial strength at a certain moment.

The major categories reported on the balance sheet include:

- ***Assets*** are divided into various categories: current assets (including cash or other highly liquid financial assets, accounts receivable, and the value of inventories), and fixed assets or investments. The fixed assets item includes the "book" value of the company's accumulated purchases of property and equipment: that is, what the company paid for those assets, less their estimated depreciation over the years they have been used. This book value may differ widely from the actual usefulness or resale value of those assets.

- ***Liabilities*** are also divided into current and long-run. Current liabilities include accounts payable, and the value of debt and interest on debt that is due within the next year. Another major liability is the company's long-term debt (that which comes due later than one year from the present).

- ***Shareholders' equity*** is a special kind of liability. The shareholders' equity, in essence, is what the company "owes" to its own shareholders. It is equal to the value of the company's assets, minus what the company owes to people or businesses *other* than its own

shareholders. Another term for this value is the "net worth" of the company. Shareholders' equity should (by definition) equal the value of any initial equity funds advanced by the shareholders (through public offerings of new stock or other financing methods), plus the cumulative value of the company's retained earnings (that is, that portion of the company's past profits which were not paid back to shareholders in the form of dividends). Because equity is treated as a liability, the company's total assets and total liabilities (including shareholders' equity) are always equal. If a company's accumulated liabilities (excluding shareholders' equity) are *greater* than its total assets, then shareholders' equity is *negative*. Usually, a company will only have negative shareholders' equity if it has experienced a string of losses, which have more than wiped out the value of the equity which shareholders put into the company (through their initial investments in the company) and any accumulated profits which the company earned in earlier, happier times. A company with negative equity is usually (but not always) facing a serious risk of bankruptcy.

Cash Flow Statement:

A third important financial statement included in any set of financial reports is the *cash flow statement*. The cash flow statement is sometimes called the statement of "changes in financial position." Like the income statement, it measures a company's financial performance over a certain period of time (such as a year, or a three-month quarter). However, the cash flow statement measures only actual inflows and outflows of *dollars*, excluding the hypothetical charges or revenues (like depreciation, or deferred taxes) that are included on the income statement. It thus provides a more accurate picture than the income statement of the actual money raised by a company's operations. For this reason, many investors and analysts are more interested in cash flow, than in a company's official net income.

The main items covered in the cash flow statement include:

- ***Cash generated from operating*** details the actual cash surplus raised by a company's day-to-day business. This is sometimes referred to, for short, as a company's "cash flow." It will equal the company's net after-tax profit (from the income statement), *adjusted* for any non-cash revenues or expenses which were included on the income statement. For example, depreciation (the imaginary charge deducted from revenue in the income statement) is added back in, on this statement, as are deferred taxes, one-time non-cash charges and provisions, and other non-cash charges. The bottom line of this section tells you how much actual money was generated by a company's business in the previous period.

- ***Cash provided by financing activities*** reports on any net cash that was raised by the company from financial markets – such as new loans from banks or bondholders, or new equity funds raised from the stock market (through new issues of the company's shares), less the costs associated with raising those funds.[2] Companies usually raise new funds to pay for

[2] Remember, a company only gets new money from the stock market when it issues new shares to that market through what is called a "public offering." This happens quite rarely. Almost all of the activity on the stock

new investments (such as expansion in operations, or new equipment or facilities). One item which appears in this section with a negative sign is the regular dividend payout to a company's existing shareholders. Since dividends are considered to be a continuing "cost" of previous efforts to raise money from shareholders, they are deducted here from the sum of the company's other financing activities.

- ***Cash used in investing activities*** describes how the company spent some of its cash on new investments – such as investments in new equipment or buildings, acquisition of other companies, and other investments.

The first two segments of the cash flow statement are usually positive (since they usually, but not always, indicate how the company "raised" money). The third segment is usually negative (since it usually, but not always, indicates that the company "spent" money on incremental investments). The overall balance of the three sections of the cash flow statement therefore shows whether the net effect of these three components was positive or negative. If the net balance is positive, then the company finished the period with more cash (or highly liquid cash alternatives) in the bank than it started with. Its cash balance (which was reported as one type of asset on the balance sheet) grew. If the cash flow balance was negative, this means that the company's cash balance shrank during the period. The bottom of the cash flow statement will usually summarize how much cash the company started the period with, the net change in cash, and then the closing cash balance.

Researchers and analysts are often interested in the cash flow situation of companies which are in financial distress. Even healthy companies, of course, may experience a negative change in cash during the year – if, for example, they are expanding rapidly and therefore spending more on new investments than they actually raise from their internal cash flow and from new financing. But in the long-run, of course, a company cannot keep spending more money than it takes in. For companies in trouble, analysts want to keep an eye on the current amount of cash in the bank (to be sure the company has enough funds on hand to cover its bills). In fact, if the company's auditors think that cash-on-hand may not be sufficient to pay the bills (including anticipated operating losses) in the next few months, they will issue what is called a "going concern" warning that is attached to the audited financial statement. They are warning investors, in other words, that the company's cash stockpile may not be enough the pay the company's bills. This usually forces the company to seek bankruptcy protection (hence eliminating its status as a "going concern").

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market consists of investors buying and selling previously-issued shares of a company, and this activity has no direct impact on a company's financial situation. Chapter 18 of *Economics for Everyone* discusses the actions and functions of the stock market (the good, the bad, and the ugly!) in more detail.

Executive Compensation:

In most countries, data on executive compensation must be published in an annual proxy circular which is mailed to shareholders with the annual report. The best place to find this circular (if you are not a shareholder) is on the SEDAR or EDGAR web sites (since companies will not mail it to non-shareholders who request the annual report, and they don't usually post this data on their own web sites). For major companies, executive compensation may also have been reported in the newspapers, or listed on one of the annual reports on executive compensation published in major newspapers or other business publications. An executive's total compensation is composed of a number of different components, including their direct cash salary, any cash bonus they may have received (typically based on the company meeting or exceeding certain financial or operational targets set out by the company's board of directors), and the value of other incentives.

The most important of these other incentives in recent years has been *stock options*, which allow an executive to purchase new shares of the company at a pre-set price. These options will have a positive value to the executive if the trading price of the company's shares exceeds the option's "hit price." For example, an option to buy a new share at $10 is hypothetically "worth" $5 if the current market value of the company's shares is $15. However, to actually receive that value (ie. to convert its hypothetical value into real value), the executive must exercise the option: that is, they must make the share purchase, then re-sell the share (to pocket the $5 cash profit). If the company's share price rises or falls, then the value of the stock option rises or falls accordingly. If the share price falls below $10, then the option becomes worthless (since it is then cheaper to buy the share on the open market, than by using the option). The value of stock options can therefore change dramatically with share prices.

Whether a stock option has any value, therefore, depends on the actual current trading price of the company's shares, and the hit price. Executives are typically offered options at different hit prices each year (depending on what the shares were trading at that year), so calculating the total value of stock options is no easy task. And reporting on the value of executive stock options is a controversial subject.

The simplest approach is to simply report the value of any stock options which an executive exercised during the previous year. Management proxy statements will usually report if an executive cashed in any stock options during the previous year, and the total gain attained as a result of that exercising. The problem with this approach is that most executives typically hold onto most or all of their stock options until they retire. They then cash in their options in a big lump which inflates their apparent compensation for that year, but this "lump" actually constitutes a form of cumulated compensation for all the years they worked as CEO. This has led some commentators to complain that reporting the value of exercised options overstates the compensation of those executives who cashed in during a particular year, but underestimates the compensation of those who held onto their options (since they received a form of compensation with

hypothetical but potentially huge value, that is not included in executive compensation tables based solely on *exercised* options).

This has led some analysts to develop ways of estimating up-front the likely ultimate value of stock options that are issued (but not necessarily exercised) in a particular year (using complex mathematical formulas, such as the "Black-Scholes" model and other approaches). This approach is equally controversial, however, because the estimates derived from these forecasting models will not generally bear any relationship to the cash which the executives ultimately receive (although they may reflect, to a better extent, the amount that optimistic executives *think* they may receive, and hence be a more accurate measure of the incentive power of the options). In my view, it is still more accurate to estimate total executive compensation by including the actual cash value of exercised stock options, while keeping in mind that those options will be exercised at irregular, lumpy intervals.

Management proxy statements may also report the total value of an executive's unexercised stock options as of the end of the last fiscal year. A table will list the number of options held (divided into those that are currently exerciseable and those that are not[3]), and the value of those stock options given the share price that prevailed at the end of the fiscal year (broken into the same two categories).

Stock options have given rise to outrageously high compensation for executives – which may be "worth it" from the perspective of shareholders (who directly receive corresponding benefits when a company's share price soars), but raise large questions about equity and democracy for broader society. Moreover, the reliance on stock options as the main form of executive compensation has notably tightened the relationship between executives and shareholders, and pushed executives to be more ruthless and unforgiving in their actions to boost the stock market wealth of their corporations – regardless of the consequences of their actions on the company's employees, the broader community, and the environment. The rise of stock option compensation is an important factor explaining the more aggressive face of modern business.

Other Corporate Data:

There are many other types of information which can be gleaned from corporate financial statistics by a sharp-eyed researcher. Some of the most useful items include the following:

- ***Average employee compensation*** can sometimes be calculated, allowing for a comparison to be made between executive salaries and worker salaries. You could estimate average annual income for a certain category of members based on your knowledge of their base rate and an assumption about average annual hours of work.

[3] Most companies set limits governing when an executive can exercise their stock options, usually forcing them to wait for 3-10 years after issue before they can be exercised.

Or sometimes the company will list its average employee compensation in a note to its financial statements. You might be able to estimate indirectly the company's average compensation, if they break out total labour costs on the income statement (note that this will include benefit costs) and report average total employment (usually in the unaudited 5-year or 10-year review).

- ***Dividend payouts*** are that share of the company's net income which is paid out to shareholders, usually on a quarterly basis. This is reported on the company's cash flow statement. It is usually also reported in any historical statistical summary contained in the annual report. Sometimes the dividend payment is reported in newspapers on a per share basis; to calculate the total payout, you must multiply this by the average total number of shares outstanding (which may also be reported in the company's historical statistical summary). The *yield* of a share is the percentage return to its owner from dividend payouts; it is like a guaranteed minimal cash return to the shareholder, even without considering any possible rise in the company's share price. Sometimes progressives will argue that a company is giving away too much money in dividends, rather than investing in new facilities or expansions in the company's real business.

- ***Retained earnings*** represent that share of a company's net income which is *not* disbursed to shareholders in the form of dividends, but rather is retained inside the company to use for future investments. In general, progressives would want to see a company retain more of its earnings internally, thus keeping them available for future investments, rather than being paid out to shareholders.

Performance Measures:

Corporate financial statements contain much data which a researcher can use to judge whether the company is doing well or not, and whether its long-term business outlook is positive or negative. This judgement, in turn, can inform numerous progressive arguments – such as supporting union demands for collective bargaining progress, or community demands that the company dedicate more funds to community development or environmental protection.

Some of the more common performance indicators include the following:

- ***Profit margin*** is the company's net income measured as a share of its revenue. A common version of this approach is to measure operating income as a share of total revenue; this is called the operating margin. High-tech or risky businesses need higher profit margins to generate profit rates equal to those of lower-tech or more predictable businesses.

- ***Profit rate*** is the company's net income measured as a percentage of its capital stock. Because there are many different ways of measuring a company's capital stock, there are many different ways of measuring the profit rate. They generally fall into the two following categories.

- ***Return on capital*** indicates the return the company is generating for the collective of investors who have supplied the company with capital (including both lenders and shareholders). This profit rate measures the core profitability of the company's capital, which is useful in analyzing the broad distribution of its total income between labour, suppliers, and "capital" (including both debt capital and equity capital). The capital stock can be approximated as the company's total assets (in which case the profit rate is known as the *return on assets*), or as the company's long-term assets only (usually measured as total assets minus current liabilities, in which case the profit rate becomes the *return on invested capital*). Because we are measuring the total return to capital, we add interest payments back into the numerator of this measure (since interest payments are a form of income for capital); we also usually add back any one-time charges which were deducted in calculating net income (since we are interested in measuring the underlying profitability of the company's core day-to-day operations). Return on capital is also usually expressed in before-tax terms.[4] A company which generates a before-tax return on capital of 10 percent is doing well: this implies that each dollar of invested capital is generating 10 cents of net worth per year, which can then be divided among lenders (interest), shareholders (dividends and share price appreciation), and government (taxes).

- Another measure of a company's profitability, this time with particular reference to its shareholders, is the ***return on equity***: net income divided by shareholder's equity (from the balance sheet). This shows the return that the company is generating for its ultimate owners; it is always expressed in after-tax terms. Return on equity will exceed return on capital if the company is successful in "leveraging" borrowed capital to generate additional profit for the company (above and beyond the cost incurred in borrowing that additional capital). For companies which have experienced difficult financial times, the equity base (which is the denominator in calculating return on equity) can become depleted (by repeated losses). This means that the return on equity measure can become misleadingly high (in either positive or negative numbers), and should be interpreted with caution. A company which generates a 10 percent return on equity for its owners is doing well: the shareholders are earning a profit which is significantly higher than the returns generated by lower-risk investments (such as bonds).

- ***Debt-equity ratio*** is a way of measuring how much of a company's assets are owned by its actual shareholders, and how much is owed to banks or other lendors. It is sometimes phrased in percentage terms (eg. a 40:60 debt-equity ratio means that the company's assets are 40% debt and 60% equity). Alternatively, it can sometimes be phrased as a direct ratio (eg. a 2:1 debt-equity ratio means that the company has twice as much debt as equity, or in other words that its assets are 66% debt and 33% equity).

[4] The equation for calculating return on assets is therefore (net income + interest payments + taxes) / assets. For return on invested capital, it is (net income + interest payments + taxes)) (assets - current liabilities).

- ***Total return*** to a company's shareholders measures the total rate of return that a financial investor has received by purchasing one of the company's shares. It equals the rise (or fall) in the market value of that share, plus the value of dividends received. For example, suppose a share cost $20 at the beginning of the year, its owner received a total of $2.00 in four quarterly dividends, and the share price rose to $24 at the end of the year. The shareholder thus received a total return during that year of 30% (equal to $2 in dividends plus $4 in share price appreciation, divided by the initial investment of $20). In most cases, the most important factor in total return is the change in share price. So to make the total return "look" high (and hence show that shareholders have done very well by the company), pick a starting point when the share price was low. For some major companies, total return over various time periods is published in financial sources like the *Standard and Poor's* monthly stock market guides (available at university business libraries, among other places). More laborious is to calculate it yourself, by going back to the company's annual reports for information on dividends, and to financial databases for information on share prices. Some summary data on recent total return is usually published in the annual proxy circular.

- ***Price-earnings ratio*** is a way of capturing whether a particular company is viewed favourably by financial markets. It is the ratio of a company's share price, to the current annual level of after-tax earnings (net income), expressed on a per share basis (ie. after-tax income divided by the number of shares in circulation). Price-earnings ratios thus fluctuate every day with the value of a company's shares. It is usually reported (in a column labeled P/E) in the stock market tables of the newspaper. A company with good long-run prospects will have a higher P/E ratio than less strategically positioned companies. But the P/E ratio also reflects overall stock market sentiments, not just the performance of one company.

- ***Productivity*** is a measure of how much the average employee produces (per hour or per year). It is often useful to contrast the growth of productivity with the growth of employee compensation (since the latter usually rises more slowly than the former). Productivity can sometimes be measured in *physical* terms: eg. vehicles assembled per worker, or available passenger miles flown per worker. Calculate this by dividing the company's data on total physical "production" by average total employment (or average employment of production workers, if that number is available). In this case, it is appropriate to compare the growth of physical productivity to the growth of *real* (after inflation) earnings. In other cases, it is only possible (or more appropriate) to measure productivity in *value* terms: eg. sales per employee, or value-added per employee. In this case, productivity can be compared to nominal earnings (or else both productivity and average earnings can be deflated and compared in real terms). In some cases, productivity data is available from independent sources (such as the Harbour Report on the auto industry).

- ***Unit labour cost*** is another way of measuring changes in the relationship between wages and productivity. Dividing total labour costs by the firm's total revenue will

indicate the proportion of each dollar's worth of output that is "eaten up" by labour. The unit labour cost is a ratio between zero and one; it is higher for firms which employ more direct labour in production, and rely relatively less on purchases of parts and materials, and the use of machinery and equipment.[5] If this ratio is falling, then productivity is growing faster than wages and benefits, and it can be argued that the company's workers are not "sharing fairly" in the company's success.

[5] Unit labour cost is thus the analog, at the level of the individual firm, of labour's share of total output for the economy as a whole.