Strategic Value Investing: Screening for Cash Flow and Value

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Article Highlights

- This screen identifies companies with strong cash flow, reasonable valuations and earnings growth.
- Cash flow analysis determines if a company is doing a good job of converting earnings into cash flow, which is required for a company to ultimately be of value to investors.
- Passing companies not only have positive cash flows, but also favorable levels of cash flow relative to assets, liabilities and market capitalization.

Strategic value investing is about treating each investment as if you were buying the entire business. You need to ask the same questions you would ask if you were starting a business.

- Is this a business I want to be in and does it have good long-term prospects?
- Do I expect to get a return from this investment and when?
- Is the price I am paying attractive given the returns I expect to realize in the future?

There are many ways of evaluating expected future returns and determining price relative to value, as we discussed in "Selecting a Valuation Method to Determine a Stock's Worth" (April 2014 *AAII Journal).* One common method is to evaluate the earnings or cash flow of the business. Now, earnings are nice, but you cannot pay your employees, suppliers, creditors and even yourself with earnings; payment requires cold hard cash. Ultimately to be of value to the owners, a company has to be able to generate positive cash flow. This is true whether you own a small business or are investing in shares of a large publicly traded company. There are other reasons for looking at cash flows, also. Earnings can be easily manipulated by management, and one method of evaluating the quality of a company's earnings is to look at the relationship between cash flow and earnings. (For more about earnings manipulation, see the book "Asian Financial Analysis: Detecting Financial Irregularities," by ChinHwee Tan and Thomas Robinson, John Wiley & Sons, 2014.)

In this article, we present a screen that uses custom cash flow variables designed for *Stock Investor Pro (SI Pro),* AAII's fundamental stock screening and research database program, to identify companies with strong cash flow and selling at reasonable prices relative to cash flow.

Measures of Cash Flow

For exactly the reasons cited above, accounting rules have for decades required that companies provide a cash flow statement as part of their audited financial statements. Simply put, cash flow is as important as earnings. The cash flow statement presents the total cash flow for the year divided into three categories: operating, investing and financing activities.

Operating cash flows are cash flows related to the operations of the company as opposed to cash flows from investing or financing activities. This is the net cash flow from operations left after collecting from customers and paying employees, suppliers and the like. Under U.S. Generally Accepted Accounting Principles (GAAP), interest expense paid to creditors is also deducted in arriving at operating cash flows. Note that under International Financial Reporting Standards (IFRS), companies can choose to deduct interest expense in arriving at either operating or financing activities.

Investing cash flows are those related to a company's investments in the future. They include purchases of property, plant and equipment (aka capital expenditures), acquisitions of other companies and other long-term investments. Invest-

Cash Flow Ratios

To screen large databases for companies of interest and to make comparisons of companies against each other, we need to remove size as a factor by computing ratios. Commonly used ratios include, among others, price-earnings (P/E) ratio [or its inverse, the earnings yield (E/P)], return on assets (ROA)—a measure of profitability—and debt ratios. Here, we present several ratios based on cash flow measures.

Cash Flow Return on Assets

CFROA = operating cash flow ÷ total assets

This ratio measures how much operating cash flow a company generates relative to its assets. A ratio of 0.05 (or 5%) would mean that the company generates $5 of operating cash flow for every $100 invested in assets. The higher this ratio is, the better. In *SI Pro,* this can be created as a custom ratio for each year. For example, the ratio for the last completed fiscal year (Y1) is:

CFROA1 = (Y1 operating cash flow x 100) ÷ Y1 total assets

For perspective, as of March 28, 2014, there were 7,078 companies in *SI Pro* with the following characteristics (for those companies for which data was available):

	CFROA1	CFROA2	CFROA3
75th Percentile	9.97%	10.12%	10.53%
Median	3.49%	3.30%	3.72%
Average	(15.05%)	(19.66%)	(13.52%)
25th Percentile	(5.00%)	(4.91%)	(3.15%)

The median cash flow return on assets is between 3% and 4% for the companies in the *SI Pro* database, while the average is decidedly negative. This difference between the mean and median suggests that there are a few stocks with exceptionally negative ratios of cash flow from operations to total assets that are pulling the average down. The top quartile of firms generates a cash flow return on assets of at least 10%.

Cumulative Cash Flow Index

CFI = cumulative operating cash flow ÷ cumulative net income

Cumulative operating cash flow and cumulative net income are the sum of the last five years. This variable seeks to find companies where operating cash flow exceeds earnings. Both cumulative operating cash flow and cumulative net income are totaled for the last five years in this ratio. *SI Pro* shows a range of:

75th Percentile	1.86
Median	0.90
Average	1.35
25th Percentile	0.15

As might be expected, the median and average are about 1.0. The top quartile of firms generates in excess of $1.86 of operating cash flow for every $1 of earnings.

Cash Flow Yield

CF Yd = operating cash flow ÷ market capitalization

This measures the relative valuation of the company. Cash flow yield is the inverse of the price-to-cash-flow ratio. We used yield so that it is meaningful when comparing across companies with negative cash flows and so that it can be combined with growth rates for a measure of expected return. We compute this ratio on a current basis in *SI Pro* as:

Current CF Yd = (12 mo. operating cash flow x 100) ÷ Q1 market cap

This yield looks at the price based on only the last year of cash flow. We also compute a three-year average cash flow yield using average cash flow over the last three years, but continue using the current market capitalization. *SI Pro* shows a range of:

	Current CF Yd	3 Yr Avg CF Yd
75th Percentile	9.85%	9.55%
Median	3.96%	4.18%
Average	5.29%	(0.99%)
25th Percentile	(3.17%)	(2.23%)

The median operating cash flow yield is about 4%, with the top quartile of firms generating about a 10% operating cash flow yield.

Cash Flow to Total Liabilities

CFO to Tot Liab = 3 yr average operating cash flow ÷ total liabilities

A very high level of liabilities may require cash flow to be used to pay creditors rather than shareholders. Therefore, it is desirable to also screen on the level of cash flow relative to liabilities or debt. This ratio looks to see how much of the company's total liabilities could be paid off with a typical year's operating cash flow. *SI Pro* shows a range of:

	CFO to Tot Liab
75th Percentile	17.52%
Median	4.39%
Average	0.74%
25th Percentile	(8.91%)

The median company can pay off a little less than 5% of their total liabilities with a year's worth of cash flow. This means it would take over 20 years at current cash flow levels to pay off all liabilities. The top quartile companies, on the other hand, could extinguish their liabilities in about six years.

Free Cash Flow Yield

FCF Yd = 3 yr average free cash flow ÷ market cap

We compute a simple measure of free cash flow for each year using cash from operations minus capital expenditures. This ratio captures the amount that is available for distribution whether or not it is currently distributed. *SI Pro* shows a range of:

	FCF Yield
75th Percentile	4.96%
Median	0.22%
Average	(15.64%)
25th Percentile	(6.09%)

Interestingly, the median company in the database has a free cash flow yield of virtually zero. The top quartile companies generate a free cash flow yield in excess of 5%. This can be interpreted as providing a potential return to shareholders of at least 5% per year if all free cash flow was distributed.

[For more on ratios, including cash flow-based ratios see Chapter 5, Company Analysis, in our book, ("Strategic Value Investing: Practical Techniques of Leading Value Investors" (McGraw Hill, 2013).]

— *Robinson, Johnson and Horan*

ing cash flows also include cash inflows from those same activities.

Financing cash flows are those related to raising or repaying capital for the company, including debt and equity (and other than interest expense under U.S. GAAP, as noted earlier).

Investors are very interested in the operating cash flow, which tells us whether the company is doing a good job of converting earnings into cash and is able to sustain itself through its normal operations. Operating cash flow can be used to invest for the future (investing activities) or to repay capital providers (financing activities). Ideally, we would like to see operating cash flow exceed net income over time, because net income includes some non-cash charges such as deprecation. Cash flow might lag net income in the early years of a business and may fluctuate from year to year, but ideally cumulative operating cash flow should exceed cumulative net income.

Investors are also interested in how much of this operating cash flow is available to take out of the business. This leads us to a measure known as free cash flow, which, in its simplest terms, is the operating cash flows left over that could be distributed after we deduct things like capital expenditures that are reinvested into the business. Unfortunately, there is no single definition of free cash flow and different investors measure it differently (for many good reasons). For example, one simple measure is:

Operating Cash Flow – Capital Expenditures

For valuation purposes, we often get more precise and compute free cash flow to equity:

Operating Cash Flow – Capital Expenditures +/– Borrowing or Repayment of Debt

This is the cash flow available to be distributed to stockholders. Or, we can compute free cash flow to the firm:

Operating Cash Flow + Aftertax Interest Expense – Capital Expenditures

This is the cash flow available to be distributed to all capital providers (debt and equity). Others measure free cash flow as the operating cash flow remaining after distribution to some capital

Table 1. Criteria for Value-Based Cash Flow Screen

SI Pro Standard Criteria			Rationale
Cash from operations Y1 Cash from operations Y2 Cash from operations Y3	>> > >	0 0 0	Selects companies with positive cash flow and for which ratios based on cash flow and net income are appropriately computed (no negative divisions)
Net income Y1 Net income Y2 Net income Y3	>> > >	0 0 0	Selects companies with positive earnings and for which ratios based on cash flow and net income are appropriately computed
Price	>	5	Eliminates smaller, riskier stocks
Net income – 5-year growth	>	5	Selects companies with growing earnings
ADR/ADS Stock	Is False		Eliminates non-U.S. GAAP reported data
SI Pro Custom Field Criteria*			
CFROA1 CFROA2 CFROA3	>> > >	10 10 10	Selects companies generating higher levels of cash flows relative to assets; that is, generating at least 10% operating cash flow relative to assets
CumulativeCFO	>	0	Eliminates companies with cumulative negative cash flows over five years and so that CumulativeCFIndex is appropriately computed
CumulativeCFIndex	>	1	Selects companies with cumulative five years of operating cash flow exceeding earnings
CFYieldCurrent	>	15	Selects companies generating a cash flow yield of more than 15% based on the last 12 months of cash flow
CFYieldThree	>	15	Selects companies generating a cash flow yield of more than 15% based on the average of the last three years of cash flow
CFOtoTotalLiabilities	>	15	Selects companies that could pay off at least 15% of their liabilities based on their average operating cash flow for the last three years
FCFYield	>	5	Selects companies generating a free cash flow yield of at least 5% based on average free cash flow for the last three years

**Instructions for creating the custom variables in* SI Pro *can be found in an appendix to this article on AAII.com.*

providers. In the *SI Pro* database, free cash flow is computed as:

Operating Cash Flow – Capital Expenditures – Dividends Paid

This is a variation of this last concept. In summary, equity investors should be very interested in how much operating cash flow the company generates and some measure of free cash flow—how much is available in the future for distribution to the equity investors.

A Value-Based Cash Flow Screen

Based on the importance of cash flow and the desire to take a value approach to investing (with some elements of growth), we sought to narrow down the universe of potential investments to a manageable number of companies on which we can perform further due diligence—evaluating the desirability of being in this business and conducting further fundamental analysis and valuation. We created a screen to narrow down the 7,078 companies in the *SI Pro* database as of March 28, 2014, to those that produce strong cash flow and are selling at a reasonable price relative to cash flows. Table 1 shows the criteria we used.

Standard SI Pro Variables

We used a number of standard *SI Pro* variables to select companies with positive earnings and cash flow in the last three years. We also focused on stocks that are using U.S. GAAP, since there are some differences in cash flow reporting

internationally that would slightly hinder comparisons. We looked for companies that have been able to grow their earnings by at least 5% per year over the last five years (and, given our cash flow variable screens, would also have likely have grown their cash flow) and which are selling for more than $5 to eliminate riskier "penny stocks."

Custom Cash Flow Variables

We created a number of custom cash flow variables as discussed above. The screens for these variables are described in Table 1 and the *SI Pro* formulas for creating them are in an appendix published on AAII.com. The cash flow variables screen for companies that have generated strong operating cash flow relative to assets in each of the last three years (more than 10%), have cumulative operating cash flow over the last five years exceeding net income for the same period, are selling at a reasonable price relative to cash flow for the last year and average cash flow over the last three years (cash flow yields over 15%), could pay off their total liabilities in 6.7 years or less (cash flow to total liabilities greater than 15%) and generate free cash flows of at least 5% relative to current market value.

With the combination of the custom cash flow variables and standard variables, we sought companies for which our expected return in terms of current free cash flow yield and growth is at least 10% (5% each for current yield and growth), which has been the long-term historical average on stocks.

Screen Results

Table 2 shows the 21 stocks passing the screen ranked by free cash flow yield

Table 2. Stocks Passing the Value-Based Cash Flow Screen

Ranked by Free Cash Flow Yield

Company (Ticker)	Cash Flow Ret on Assets: Last Year (%)	Cash Flow Ret on Assets: 2 Yrs Ago (%)	Cash Flow Ret on Assets: 3 Yrs Ago (%)	Cumul Cash Flow Index (x)	Cash Flow Yield: Trail 12 Mos (%)	Cash Flow Yield: 3 Yr Avg (%)	3 Yr Avg Cash Flow to Liab (%)	Free Cash Flow Yield (%)
Intersections Inc. (INTX)	33.4	21.3	29.7	4.7	25.7	41.1	119.5	32.7
Alon USA Partners LP (ALDW)	25.5	69.3	31.9	2.9	21.0	32.5	47.5	29.8
World Acceptance Corp. (WRLD)	28.7	29.9	30.0	2.3	31.1	26.9	49.0	26.0
Cardinal Ethanol LLC (CRDE)	19.8	11.7	12.3	1.2	49.5	20.8	65.2	20.0
AmSurg Corp (AMSG)	15.3	14.5	15.5	4.7	22.0	19.2	20.6	17.5
Publix Super Markets Inc. (PUSH)	19.0	21.2	20.8	1.6	22.4	21.9	75.2	16.2
Terra Nitrogen Co., L.P. (TNH)	191.4	171.2	88.0	1.6	19.4	15.9	1,675.9	14.9
Cott Corp. (USA) (COT)	10.9	11.1	10.8	3.5	19.4	20.5	19.8	13.0
Outerwall Inc. (OUTR)	17.1	29.7	28.7	3.2	17.8	22.0	29.1	12.0
PDL BioPharma Inc. (PDLI)	49.8	75.1	63.0	1.1	21.1	16.9	50.4	10.7
TransGlobe Energy Corp. (TGA)	29.5	14.4	12.1	1.6	35.2	21.0	67.8	10.6
Courier Corp. (CRRC)	14.8	19.8	15.2	7.0	17.8	19.4	48.6	10.4
Flanigan's Enterprises (BDL)	13.5	13.3	11.5	3.8	25.1	21.0	20.0	9.4
AT&T Inc. (T)	12.5	14.4	12.9	3.1	19.1	19.9	19.4	8.8
Alliance Resource Partners (ARLP)	33.2	28.4	33.2	2.3	23.0	19.9	48.1	8.3
Photronics, Inc. (PLAB)	11.2	15.6	16.7	12.1	18.3	23.7	40.9	7.9
Higher One Holdings, Inc. (ONE)	20.4	28.1	25.3	2.0	15.4	15.7	30.5	7.3
Intel Corporation (INTC)	22.5	22.4	29.5	1.8	16.3	15.9	59.3	7.1
Alliance Holdings GP, L.P. (AHGP)	33.1	27.9	33.2	2.8	19.1	16.5	37.3	6.8
Rogers Communications (US (RCI)	16.9	17.4	20.7	2.3	16.7	15.7	19.7	6.3
VAALCO Energy, Inc. (EGY)	24.5	35.1	32.6	3.1	16.0	18.3	150.7	6.3
Characteristics of Passing Group								
75th Percentile	29.5	29.7	31.9	3.5	23.0	21.9	65.2	16.2
Median	20.4	21.3	25.3	2.8	19.4	19.9	48.1	10.6
Mean	30.6	32.9	27.3	3.3	22.5	21.2	128.3	13.4
25th Percentile	15.3	14.5	15.2	1.8	17.8	16.9	29.1	7.9

See Cash Flow Ratios box on pages 22 and 23 for an explanation of the ratios shown here.

Source: AAII's Stock Investor Pro*/Thomson Reuters. Data as of 3/28/2014.*

as of March 28, 2014. The median companies in this resulting group generate about 20% operating cash flow relative to assets, generate $2.80 of operating cash flow for every $1 of earnings and provide an operating cash flow yield of about 20% and a free cash flow yield of about 10%. Additionally, the median company could pay off its total liabilities in about two years.

While the group looks attractive as a whole, keep in mind that all data here is backward-looking. The next step is to examine each of these companies more closely to determine attractiveness as a strategic value investment, asking the questions posed earlier:

- Is this a business I want to be in and does it have good long-term prospects?
- Do I expect to get a return from this investment and when?
- Is the price I am paying attractive given the returns I expect to realize in the future?

Perhaps most important in evaluating long-term prospects—and thus, valuation—is how likely the historical cash flows each of these companies has generated will continue into the future. It is also important to review each company's actual cash flow statement as there may be nuances, particularly for financial companies, that are not apparent when screening based on GAAP data. For example, AmSurg Corp. (AMSG) is a medical facility company with physicians who are partners in facilities. Payments to these physicians are reported as part of financing cash flow rather than operating cash flow. Therefore, the reported cash flow data and hence the free cash flow yield are higher than what is available for shareholders. Once this is adjusted, AmSurg still has a high free cash flow yield that is quite attractive, but the investor's expected return would be lower than the data might otherwise suggest.

Conclusion

The ability to generate cash flow is a very attractive fundamental quality of a firm from the standpoint of an investor. Using *SI Pro,* we outline a method to identify companies with strong cash flow that appear to be selling at reasonable prices relative to that cash flow. We believe that such a screening process is a good starting point to narrow the universe of companies down to a number that deserves further attention and due diligence.

The cash flow screen demonstrated in this article is used regularly by one of the authors. At the time this article was written, he is currently long several of the securities shown in this screen. ▲

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