# The Statement of Cash Flows: An Indirect to Direct Conversion Tool to Enhance User Understanding and Analysis 

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#### Abstract

Statement of Financial Accounting Standards (SFAS) 95 expressed a preference for the direct method approach for reporting operating cash flows; however, the indirect method approach is widely used. We supply a tool that enables users to compute the major direct method components from indirect method disclosures and thereby enhance user understanding. We apply our conversion tool to a set of companies from a variety of industries that voluntarily report under the direct approach with encouraging results.This timely study contributes to the continuing format debate in light of the Securities and Exchange Commission's (SEC) roadmap to International Financial Reporting Standards (IFRS).


## INTRODUCTION

Investors, creditors, and other third-party users need to assess the amounts, timing, and uncertainty of future net cash inflows of the reporting entity. Cash is the lifeblood of an organization, and accordingly, essential cash flow information appears in the statement of cash flows (SCF). The SCF contains three sections that disclose cash flows from operating, investing, and financing activities. Of these, the most important section for determining the financial strength of an enterprise is the operating section. The indirect approach and direct approach are two acceptable methods for presenting the operating section of the statement. The indirect approach begins with accrual basis net income and then adds and subtracts a variety of accrual-to-cash-basis adjustments (e.g., increase in accrued liabilities) to arrive at net cash provided by (used in) operations. Besides being cryptic in appearance to many users, it may lead some to anomalous conclusions, such as viewing depreciation expense as a source of cash, because it is an addition to net income. Conversely, the direct approach simply lists the operating cash flows, including cash received from customers and cash paid to suppliers and employees. In fact, the indirect approach resembles the former "Statement of Changes in Financial Position" whereas the direct format flows like an income statement starting with "cash-basis sales" and eventually works down to "cash-basis net income."

Research evidence (discussed later) indicates that the direct method approach is more desirable and useful to third-party users ${ }^{1}$; however, most firms report using an indirect method approach. A tool that converts indirect method disclosures to the preferred direct method would have a high utility especially in light of the global migration of Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). The objective of this paper is to offer such a tool and further demonstrate its simplistic application to a selected sample of firms that report using the direct approach. In addition, detailed applications will be provided to firms that report cash flows under the direct approach identified in previous studies. The results are supportive of the utility our conversion tool can provide.

The remainder of the paper is organized as follows: Section 2 provides background and a brief focused literature review. Next, Section 3 details our three-step conversion tool and demonstrates the application of the tool with an illustrative example. In Section 4, we provide a discussion of our selected sample and a detailed application of the tool to one of our sampled firms along with summarized results for the entire sample that support the accuracy of the tool. Then, Section 5 provides additional detailed applications to two additional firms that were not part of our sample in further support of the applicability of our conversion tool. Section 6 discusses the application of our tool under International Accounting Standard (IAS) 7 and the last section provides conclusions and further addresses the implications of our study.

## BACKGROUND AND LITERATURE REVIEW

The Financial Accounting Standards Board (FASB) originally planned to require the direct method of reporting (Bahnson et. al., 1996). SFAS 95 backed away from requiring the direct method despite favouring the utility it provided for financial statement users. Specifically, SFAS 95 expresses a preference for the direct method approach but permits the indirect method approach. The FASB changed its position because the corporate community insisted that their systems didn't support the direct method (Bahnson et. al., 1996). The justification set forth in SFAS 95 for the promulgated position is that "... users may be able to make their own rough approximations of operating cash receipts and payments at a minimum level of detail using the indirect procedure discussed in paragraphs 116 and 117" (FASB 1987, para. 121). As discussed below, an important user group has challenged both the ease and accuracy of these independent calculations calling into question whether user needs are being met. Not surprisingly, the vast majority of SEC registrants employ the indirect approach. ${ }^{2}$

Contrary to the predominant use of the indirect method in practice, empirical studies conclude that direct method disclosures assist with prediction models (e.g., Orpurt \& Zang, 2009; Cheng \& Hollie, 2008; Clinch et al., 2002; and Krishnan \& Largay, 2000). If direct method information is important, sophisticated users may be able to use their influence to obtain the needed information from reporting entities. An equity issue may arise if the same information is not available to other users. Moreover, there may be potential for less optimal investment decisions by an external user if decisions are based on incomplete or misunderstood indirect method information (Krishnan \& Largay, 2000). The need for direct method components by users for informed decision making may also create a conflict between practice (most companies report with the indirect approach) and the intent of the FASB for firms to provide useful information. Consider the following portions of Statement of Financial Accounting Concepts (SFAC) 8:

OB2. The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders, and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling, or holding equity and debt instruments and providing or settling loans and other forms of credit.

OB3. Decisions by existing and potential investors about buying, selling, or holding equity and debt instruments depend on the returns that they expect from an investment in those
instruments; for example, dividends, principal and interest payments, or market price increases. Similarly, decisions by existing and potential lenders and other creditors about providing or settling loans and other forms of credit depend on the principal and interest payments or other returns that they expect. Investors', lenders', and other creditors' expectations about returns depend on their assessment of the amount, timing, and uncertainty of (the prospects for) future net cash inflows to the entity. Consequently, existing and potential investors, lenders, and other creditors need information to help them assess the prospects for future net cash inflows to an entity.

While an accrual basis income statement tells the reader if sales are increasing or (decreasing) and a balance sheet indicates changes in accounts receivable, the direct method SCF tells the reader whether cash collections from customers are increasing or (decreasing). This holds true for all the major categories of cash payments and allows readers to more easily make predictions about the future cash flows related to an entity's operating activities. A simple conversion tool that enables users to easily estimate the major direct method components from published financial statements, regardless of an indirect format, may bridge this apparent inconsistency between practice and theory. Thus, the FASB intent of useful information can be easily realized.

To continue, the CFA Institute ${ }^{3}$ strongly supports the direct method. Their official position is that "Cash collected from customers is perhaps the single most important direct cash flow number and is a primary indicator of the company's cash-generating ability" (CFA Institute, 2007, p. 22). In addition, the Institute also makes the following two assertions regarding the conversion process of SCF from an indirect format to a direct format: (1) "It is impossible for even the most skilled analyst to create a reliable direct method cash flow statement for most companies from existing reported data" and (2) "The analysis required to even approximate a direct method cash flow statement from the available data is difficult and time consuming" (CFA Institute, 2007, p. 22). The inference suggests that it is not worth the time and/or effort to attempt the indirect to direct conversion for most companies in obtaining needed information. If the CFA Institute's position is correct, and the indirect approach is not as useful for analysts and other users as the direct approach, then it would be important to have a simple tool that could be used to obtain the needed direct method information from published data.

As previously stated, the FASB has long recognized the importance of understandability as an essential qualitative characteristic necessary in analyzing accounting information. While some financial statement users may argue that the indirect approach format is difficult to understand, information needed to convert to the direct approach is nevertheless available. We elect not to discuss the pros and cons of the indirect approach as these are adequately addressed elsewhere and are not the focus of our manuscript. (See Brahmasrene et al., 2004; Broome, 2004; Miller \& Bahnson, 2002; Bahnson et al., 1996; and Trout et al., 1993 for more discussion.) Rather, our purpose is to provide an important conversion tool to assist users in the estimation of direct method components where most companies only supply cash flow information with the indirect method format and thereby enhance understanding and fairness.

We first examine SEC documents by hand (primarily $10-\mathrm{Ks}$ and $10-\mathrm{Qs}$ ) and provide a simple, easy-to-use procedure (tool) for converting an indirect method operating section to a direct method approach. We then apply our tool to recent cash flow statements across a variety of industries and compare our estimates of cash received from customers and cash paid to suppliers and employees with actual direct method disclosures. Our conversions are accomplished easily and quickly. Further, we offer plausible reasons why we do not find material articulation errors similar to those reported in major empirical research studies. Our investigation is limited to public companies that report under the direct approach, and as a result, our sample size is limited. In addition, firms that voluntarily report under the direct approach tend to be smaller than the general population of public companies. ${ }^{4}$ Consequently, the results of our analysis cannot be viewed as definitive and our conclusions apply only to the set of companies within our sample that report under the direct approach. On the other hand, our results do provide limited initial support for the FASB's justification that users may in fact be able to make rough approximations of
direct method cash flow components from indirect method disclosures. Thus, the importance of these implications cannot be understated.

## THE CONVERSION TOOL

The indirect-to-direct conversion process appears in Table 1. ${ }^{5}$ The only inputs needed are: (1) an income statement and (2) the SCF indirect method operating section. The first step is to place the income statement in a convenient form for conversion. A convenient form is intuitive. Parentheses [or minus signs] are used for income statement rows that reduce net income. All subtotals, such as gross profit and earnings before taxes, are ignored because they are not necessary for our fundamental analysis. We recommend the use of a spreadsheet for conversion. Although a spreadsheet is not necessary, it allows the user to easily verify that the income statement inputs are entered properly. In addition, a spreadsheet is convenient for cross adding (see Table 1).

The second step is to identify the line in the income statement to which each plus or minus adjustment in the indirect method operating section pertains. After each plus or minus adjustment is matched with its appropriate income statement row, add the plus or minus adjustment to the matched income statement row on the spreadsheet. In the example in Table 1, arrows indicate the income statement rows associated with the plus and minus adjustments. Notice that when each reconciling item in the indirect operating section is combined on the spreadsheet with its related income statement row, the integrity of the plus and minus signs from the indirect operating section is maintained. A plus adjustment in the indirect-method operating section is added as a positive item on the income statement line to which it pertains. Likewise, a minus adjustment in the indirect-method operating section is added as a negative item on its relevant income statement spreadsheet row. The completion of the second step yields an initial conversion schedule (see Table 1).

The third and final step is to simply add across on the initial conversion schedule and change the labels of the income statement rows to the appropriate direct method operating section descriptions. ${ }^{6}$ With the indirect format operating section of the cash flow statement converted to a format suitable for analysis, a user can begin the analysis process to make informed decisions.

## TABLE 1 <br> CONVERSION EXAMPLE

|  | Income Statement |  |  |
| :--- | ---: | :--- | ---: |
|  | Indirect Operating Section |  |  |
| Revenues | $\$ 1,000$ | Net income | $\$ 190$ |
| Cost of goods sold | 650 | Depreciation expense | 50 |
| Gross margin | 350 | Gain | $(10)$ |
| SG\&A expenses | 150 | Increase in accounts receivable | $(40)$ |
| Operating income | 200 | Increase in accounts payable | 30 |
| Gain | 10 | Increase in inventories | $(20)$ |
| Income before taxes | 210 | Increase in taxes payable | 14 |
| Tax expense | 20 | Increase in deferred tax |  |
| Net income | 190 | liability | 5 |
|  |  | Cash provided by operations | 219 |

STEP 1 - Place the income statement in convenient form for conversion (with any related parentheses and without subtotals).

| Revenues | $\$ 1,000$ |
| :--- | ---: |
| Cost of goods sold | $(650)$ |
| SG\&A expenses | $(150)$ |
| Gain | 10 |
| Tax expense | $(20)$ |
| Net income | 190 |

[This number is a check of the inputs.]

STEP 2 - Match each plus and minus adjustment in the indirect operating section of the statement of cash flows with its related income statement row. Maintain the integrity of the indirect section signs. The culmination of this step yields the initial conversion schedule.

## Income Statement

Indirect Operating Section
(in convenient form)

## Initial Conversion Schedule

| Revenues | 1000 | -40 accounts receivable |
| :--- | ---: | :--- |
| Cost of goods sold | $(650)$ | +30 accounts payable; -20 inventories |
| SG\&A expenses | $(150)$ | +50 depreciation expense |
| Gain | 10 | -10 gain |
|  |  | +14 taxes payable; +5 deferred tax |
| Tax expense | $(20)$ | liability |

STEP 3 - Add across and change the row labels to reflect the direct approach format.

## Final Conversion Schedule

Cash received from customers:
Cash paid to suppliers:

Reventes
$\$ 1,000-40=960$
COGS
(650) $+30-20=(640)^{*}$

|  | SG\&A |  |
| :--- | :--- | :--- |
| Cash paid for SG\&A expenses: | expenses | $(150)+50=(100)^{*}$ |
|  | Grim | $10-10=0$ |
| Cash paid for taxes: | Faxexpense | $(20)+14+5=(1)$ |
| Cash provided by operations: | Net ineome |  |
|  | 490 | 219 (check) |
|  |  |  |
| *SFAS 95 combines these two rows into one row - Cash paid to suppliers and employees $\$ 740$. |  |  |

Our conversion tool works easily and quickly for self-contained examples, similar to the examples presented in the FASB's illustrative guidance (see ASC 230-10-55-20) as well as instructional, textbookrelated problems. This extends the utility of the tool to an educational environment by providing a familiar format for ease of learning.

In practice, companies combine similar items for income statement presentation purposes. Income statement grouping issues and vague descriptions of plus and minus adjustments included in some indirect-method operating sections may complicate the conversion process; however, in most of the cases we examine, these issues are not insurmountable. Unlike the CFA Institute assertion that it is impossible for even skilled analysts to create reliable direct method disclosures, fairly reliable conversion appears possible for most of the companies we examine. In addition, the second CFA assertion that the conversion process is time consuming is also refuted, given the relative ease our conversion tool provides. Financial statement users, such as those described by the CFA, would therefore benefit from our conversion tool.

## NONARTICULATION

An additional possible complicating factor is nonarticulation. Unlike the example presented in Table 1 , evidence exists that widespread nonoperating changes are present in current assets and current liabilities. Moreover, the changes in balance sheet accounts often do not agree with the reconciliation lines in the indirect operating section, even after adjustments for business combinations and write offs (Bahnson et. al., 1996). It is important to observe that our conversion tool is not affected by these nonarticulation issues because the starting point in the present study is the operating changes in the specific current asset and liability accounts as reported in the indirect method cash flow calculations.

## DATA COLLECTION AND ANALYSIS

We first identify companies that present their statement of cash flows on a direct format basis. The direct method format also requires companies to provide the indirect method operating section in a supplemental reconciliation schedule. This dual presentation enables us to compare the results of our conversion tool with actual direct method disclosures. At first glance, one might think that the identification of companies that present their statement of cash flows on a direct basis might be somewhat difficult because most U.S. companies report using the indirect approach. Fortunately, the Securities and Exchange Commission's Edgar database provides a convenient solution. After entering the Edgar website, we clicked on search for company filings and then full text (past four years). "Cash paid to suppliers" (in quotes) was our search criteria.

Our Edgar search results indicate over 1,400 hits; however, many of these involve the reports for the same company over the past four years. We then scanned through the initial list of search results for firms in different industries. We excluded banks and financial institutions as many banks and financial institutions are subject to regulatory disclosures beyond SFAS 95 and are therefore not comparable to the majority of other entities. Sometimes we were not able to use a search result and discarded it. For example, "cash paid to suppliers" is contained in textual material and not because the firm reported cash
flows in a direct format. Also, sometimes our search phrase was contained in the cash flow statement of a joint venture (i.e., Sprint Nextel), but the consolidated entity reported under the indirect approach. In sum, there was not a large population of direct format reporting firms from which to sample; accordingly, our seemingly small sample does represent those firms that report using the direct format. Additionally, the purpose of our sample is to provide further support for the utility of our conversion tool actually applied to firms electing the direct format method.

Appendix A lists the sampled firms and industries. Our sample includes several foreign companies because they report to the SEC. As we demonstrate later, the tool works well for foreign reporting entities. Like SFAS 95, International Accounting Standard No. 7 expresses a preference for the direct approach, but permits the indirect method. This is very important given the migration of GAAP and IFRS to a more uniform and acceptable standard. International financial statement users could benefit by having a conversion tool available to enhance analyses. Further, as the world economy continues to grow, there will be more multinational firms with diverse financial statement users. In fact, one of our sampled companies, Rebornne (USA), is based in New Zealand. Generally, New Zealand incorporates international standards verbatim for public companies; however, New Zealand requires the direct method for the statement of cash flows for all entities except wholly-owned subsidiaries (see Austin \& Bradbury, 1995).

## DISCUSSION OF SAMPLE FIRMS

An examination of the financial statements of our sampled firms reveals that the conversion example presented earlier is often somewhat simplistic. In many cases, additional complexities arise in the application of the conversion tool to actual financial reporting scenarios. We demonstrate some of these complexities with a detailed examination of a representative sampled firm, Arden Group, in Table 2. The simplicity, accuracy, and utility of our conversion tool are clearly illustrated. We then present summarized data for the two major components of the direct method for all twenty-six of our sampled companies in Table 3 for cash received from customers and then in Table 4 for cash paid to suppliers and employees. This further supports the application of our conversion tool. Appendix B contains the related details for the twenty-five sampled firms other than Arden Group.

TABLE 2
APPLICATION OF THE TOOL TO ARDEN GROUP, INC., FORM 10-K - JANUARY 1, 2011 (DOLLARS IN THOUSANDS)

| Arden's 2011 Income Statement in form for conversion |  |  |
| :---: | :---: | :---: |
| Sales | \$417,065 |  |
| Cost of sales | $(257,506)$ |  |
| Selling, general and administrative | $(129,416)$ |  |
| Interest and dividend income | 1,298 |  |
| Other expense | (66) |  |
| Interest expense | $(1,044)$ |  |
| Income tax expense | $(12,246)$ |  |
| Net income | 18,085 | (check) |
| Arden's 2011 indirect operating section |  |  |
| Net income |  | \$18,085 |
| Depreciation and amortization | 5,307 |  |
| Provision for losses on accounts receivable | 44 |  |


| Deferred income taxes |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Net loss from disposal of PP\&E |  |  | 8 |  |
| Realized loss on investments, net |  |  | 66 |  |
| Amortization of premium on investments |  |  | 960 |  |
| Stock appreciation rights compensation expense (income) |  |  | (394) |  |
| Accounts and notes receivable |  |  | 799 |  |
| Inventories |  |  | $(1,302)$ |  |
| Other current assets |  |  | 95 |  |
| Other assets |  |  | 27 |  |
| Accounts payable, trade and other current liabilities |  |  | $(1,090)$ |  |
| Federal and state income taxes payable |  |  | (237) |  |
| Deferred rent |  |  | (61) |  |
| Other liabilities |  |  | $\begin{array}{r}\text { (348) } \\ \hline\end{array}$ |  |
| Net cash provided by operations |  |  |  |  |
| Conversion Schedule |  |  |  |  |
| Cash received from customers $=$ Sales 417,065 [+799 A/R \& N/R <br> (61) deferred rent*] |  |  | \$417,803 |  |
| Cash paid to suppliers and employees $=$ Cost of goods sold $(257,506)$ <br> + Selling, general and administrative $(129,416)$ <br> $[(1,302)$ inventory $(1,090) \mathrm{A} / \mathrm{P}+5,307$ depreciation and amortization |  |  |  |  |
| +44 bad debt (394) stock appreciation rights +95 other current assets |  |  |  |  |
| Cash received for interest and dividends 1,298 |  |  | 1,298 |  |
| Cash received for other expenses (66) [ +8 loss +66 realized loss] |  |  | 8 |  |
| Cash paid for interest $=$ interest expense $(1,044)$ [ +960 premium] |  |  | (84) |  |
| Cash paid for taxes $=$ tax expense $(12,246)[+1,129$ deferred tax (237) tax payable] |  |  | $(11,354)$ |  |
| Net cash provided by operations |  |  | 23,088 |  |
| Comparison of Actual and Estimates |  |  |  |  |
|  | Actual | Tool | Difference | Diff / Actual |
| Cash received from customers | \$417,580 | \$417,803 | (\$223) | -0.1\% |
| Cash paid to suppliers + employees | $(384,624)$ | $(384,583)$ | (41) | 0.0\% |
| Cash received for interest | 1,580 | 1,298 | 282 | 17.8\% |
| Cash received for other expenses | 0 | 8 | (8) | n/a |
| Cash paid for interest | (94) | (84) | (10) | $\mathrm{n} / \mathrm{a}^{* *}$ |
| Cash paid for taxes | $(11,354)$ | $(11,354)$ | 0 | $\mathrm{n} / \mathrm{a}^{* *}$ |
| Cash provided by operations | 23,088 | 23,088 | 0 |  |

* Proper matching sometimes requires additional research. In this case, a quick glance at Arden's balance sheet indicates that deferred rent is classified as a long-term liability. Clicking on edit/find for deferred rent does not indicate any unusual treatment of deferred rent for Arden. On the other hand, American Apparel reports a plus adjustment in its indirect top section of 5,908,000 for deferred rent. Inspection of American Apparel's balance sheet indicates that deferred rent is a long-term liability. However, clicking on edit/find for deferred rent reveals that American Apparel treats deferred rent as a reduction of rent expense. Therefore, American Apparel's deferred rent adjustment is included in the calculation of cash paid to suppliers and employees.
** Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

The detailed application and related results of our conversion tool applied to the Arden Group are clearly illustrated in Table 2. Any differences in the results are immaterial with respect to percentage or dollar amounts. In sum, our conversion tool is simple in application and accurate in results. We next apply the conversion tool to cash received from customers for all twenty-six sampled companies. Table 3 contains the results for the absolute value of (difference / actual).

TABLE 3
CASH RECEIVED FROM CUSTOMERS

| American App | $0.10 \%$ | ML Macadamia | $1.2 \%$ |
| :--- | :--- | :--- | :--- |
| Arden Group | $0.10 \%$ | Northrop | $0.3 \%$ |
| Bio-Rad | $0.10 \%$ | NU Horizons | $0.0 \%$ |
| Chembio | $0.70 \%$ | Orbital | $3.3 \%$ |
| China Teletech | $0.00 \%$ | Pope | $0.0 \%$ |
| CVS Caremark | $10.80 \%$ | Rebornne | $0.0 \%$ |
| EMC | $0.10 \%$ | River Rock | $0.1 \%$ |
| Findex | $0.30 \%$ | Southwest | $0.0 \%$ |
| First Solar | $2.60 \%$ | Stanley | $0.2 \%$ |
| Golden | $0.00 \%$ | Stantec | $0.8 \%$ |
| Great Northern | $0.00 \%$ | Tech Data | $0.0 \%$ |
| Hickok | $0.00 \%$ | Twenty Services | $0.0 \%$ |
| Hooker | $0.60 \%$ | Wuhan | $0.3 \%$ |

The average absolute value of (difference/actual) for cash received from customers for the twenty-six firms is slightly less than one percent $(0.008)$ and the median percentage difference is zero percent. The tool worked well for EMC, our largest sampled firm based on market cap. The maximum difference was CVS Caremark at 11 percent. For nine of the twenty-six firms, the tool yields a perfect estimate (a zero difference). If CVS Caremark is dropped from consideration, the mean absolute value of the percentage difference decreases to 0.4 percent (0.004). The overall percentage differences are immaterial. In our opinion, these average absolute percentage differences qualify as "rough approximations," and, in most cases support the viability of the conversion tool enhancing the understanding of financial statement users. Next, we apply the conversion tool to cash paid to suppliers and employees for all twenty-six sampled companies. Table 4 contains the results for the absolute value of (difference/actual).

TABLE 4
CASH PAID TO SUPPLIERS AND EMPLOYEES

| American App | $0.30 \%$ | ML Macadamia | $3.4 \%$ |
| :--- | :--- | :--- | :--- |
| Arden Group | $0.00 \%$ | Northrop | $2.1 \%$ |
| Bio-Rad | $1.70 \%$ | NU Horizons | $0.8 \%$ |
| Chembio | $0.90 \%$ | Orbital | $6.7 \%$ |
| China Teletech | $0.00 \%$ | Pope | $1.6 \%$ |
| CVS Caremark | $10.90 \%$ | Rebornne (USA) | $0.0 \%$ |
| EMC | $1.50 \%$ | River Rock | $0.3 \%$ |
| Findex | $0.20 \%$ | Southwest | $0.0 \%$ |
| First Solar | $0.10 \%$ | Stanley | $1.7 \%$ |
| Golden | $0.00 \%$ | Stantec | $1.4 \%$ |
| Great Northern | $0.00 \%$ | Tech Data | $0.0 \%$ |
| Hickok | $0.10 \%$ | Twenty | $1.9 \%$ |
| Hooker | $0.60 \%$ | Wuhan | $4.7 \%$ |

The average absolute value of (difference/actual) for cash paid to suppliers and employees for the twenty-six firms is 1.6 percent ( 0.016 ). The median percentage difference is zero percent and four companies have perfect estimates. Again, the tool worked well for the largest sampled firm, EMC. The only firm with a large difference is CVS Caremark with slightly less than 11 percent. If CVS Caremark is dropped from consideration, the mean absolute value of the percentage difference decreases to 1.2 percent (0.012). In most cases, the percentage differences (articulation errors) are not material and easily qualify as "rough approximations." These results also support the viability of the conversion tool.

We feel that the above estimates are conservative, because we do not attempt to adjust for the two required supplemental information items, cash paid for taxes and cash paid for interest, which must be disclosed under the indirect approach. If we adjust our estimates for these two items, a slight increase in the viability is observed. For instance, consider the presentation for Pope Resources, which is included in Appendix B. Pope's articulation error for cash paid to suppliers and employees decreases from 1.6 percent to virtually zero, if we adjust for cash paid for interest and taxes. Likewise, Stanley Furniture's articulation error for cash paid to suppliers and employees decreases from $1.7 \%$ to almost zero if we adjust for cash paid for interest.

## WHY DO OUR RESULTS DIFFER FROM THOSE OF MAJOR RESEARCH STUDIES?

The research methodology for empirical research studies (i.e., Krishnan \& Largay, 2000; Orpurt \& Zang, 2009) involves searching large, computerized data bases. Typically these studies also employ algorithms, proxies, and prediction models. Studies of this nature obtain large sample sizes for which statistical analysis is appropriate. The objective of our investigation is to examine the initial feasibility of our conversion tool. Accordingly, we examine actual financial statements by hand for firms that report their SCF with the direct approach. As a result, our sample size is necessarily small and statistical analysis (other than descriptive statistics) is not appropriate.

We find immaterial articulation errors for most of our sampled firms. The aforementioned empirical studies find just the opposite. For instance, (Krishnan \& Largay, 2000) report material measurement errors for cash paid to suppliers and employees for nearly two-thirds of their sample. Why are our results so drastically different? We next discuss why the answer is likely contained in the details. ${ }^{7}$

For two of our sampled firms we have to look through the form of the actual label provided by a company to arrive at the substance of the presentation as set forth in SFAS 95's illustrative guidance.

Golden Enterprises (Appendix B) reports cash paid to suppliers and employees of \$46,703,613 and cash paid for operating expenses of $\$ 43,830,642$. We follow the direct method components set forth in ASC 230-10-55-20 and combine these two lines items into one line amount, cash paid to suppliers and employees. The results are perfect (an articulation error of zero).

We make a similar substance-over-form combination for Rebornne (USA). Rebornne reports cash paid to suppliers and employees of $\$ 1,837,308$ and cash paid for selling expenses of $\$ 56,431$. In the spirit of SFAS 95, we combine these two lines into one row, cash paid to suppliers and employees. ${ }^{8}$ Again, the results are perfect (zero articulation errors). We doubt that the data entry process for large, computerized data bases is able to look past the form of the major direct method line disclosures to arrive at the substance of SFAS 95's illustrative disclosures. If our concerns about the data entry process are correct, differences of this nature could easily result in significant articulation errors.

## OFFICE DEPOT AND COMPAQ COMPUTER

A recent empirical study by Orpurt \& Zang (2009), reveals two additional companies that voluntarily report their SCF under the direct approach, Office Depot and Compaq Computer. These two companies were not included in our sample because the Edgar search engine only uses the prior four years. The cash flow statements for both of these companies are outside the four-year search window. We utilize this fortuitous opportunity to apply our tool to both of these companies and generate estimates for: (1) cash received from customers; and (2) cash paid to suppliers and employees. We obtain data for both Office Depot and Compaq Computer from the SEC website. The data and related applications of our conversion tool with actual and estimate comparisons are illustrated in Tables 5 and 6.

TABLE 5

## APPLICATION OF THE TOOL TO OFFICE DEPOT SIC 5940 RETAIL-MISCELLANEOUS SHOPPING GOODS STORES

## Office Depot's 1999 Income Statement (in form for conversion) For the year ended December 25, 1999

(Dollars in thousands)

| Sales | \$10,263,280 |  |
| :---: | :---: | :---: |
| Cost of sales and occupancy costs | $(7,450,310)$ |  |
| Store and warehouse operating and selling expenses | $(1,961,037)$ |  |
| Pre-opening expenses | $(23,628)$ |  |
| General and administrative expenses | $(381,611)$ |  |
| Store closure and relocation costs | $(40,425)$ |  |
| Merger and restructuring costs | 7,104 |  |
| Interest income | 30,176 |  |
| Interest expense | $(26,148)$ |  |
| Miscellaneous expense, net | $(3,514)$ |  |
| Income tax expense | $(156,249)$ |  |
| Net income | 257,638 | (check) |
| Office Depot's 1999 Indirect Operating Section For the year ended December 25, 1999 |  |  |
| Net income |  | \$257,638 |
| Depreciation and amortization | 168,553 |  |



In the case of Office Depot, our conversion tool yields a difference of only 0.9 percent for cash received from customers and only a 1.3 percent difference for cash paid to suppliers. An overestimate of $\$ 94,775,000$ for Office Depot might seem large, but, in percentage terms, the difference is not material ( 0.9 per cent). In our opinion, a rough approximation of the two critical direct-method components is possible for Office Depot.

TABLE 6

## APPLICATION OF THE TOOL TO COMPAQ COMPUTER SIC 3570 COMPUTER \& OFFICE EQUIPMENT



As was the case with Office Depot, our results for Compaq Computer are not material in terms of percentage difference for both cash received from customers and cash paid to suppliers. Again, the percentage differences for both companies are consistent with the results for the sampled firms that are presented in Tables 3 and 4. We conclude that our tool works well for both of the additional companies that were brought to our attention by other researchers.

## STANDARDS AND WHAT THE FUTURE MAY HOLD

Given the current migration to global standards and the related future melding of GAAP and IFRS the need for rational accounting applications based upon a foundation of sound practice will be ever present. As the U.S. proceeds along the SEC roadmap to international reporting standards, several differences may arise between U.S. GAAP and IFRS that could affect the conversion process. Under IAS 7, the starting point for the indirect approach could be a line other than bottom-line net income. For instance, the reconciliation schedule in the example provided in Appendix A to IAS 7 begins with net profit before taxation. The starting point difference requires only a slight modification in the application of the conversion tool. If the starting point in the reconciliation schedule is net profit before taxes, in the first step, tax expense is simply listed as zero. Any item relating to taxes in the indirect method reconciliation schedule is combined with the initial tax expense of zero. In the accompanying illustrative example provided in Appendix A to IAS 7, cash paid for taxes of 900 is subtracted in the indirect reconciliation schedule. The outflow of 900 for taxes is combined with tax expense from step one of zero for a net cash paid for taxes of 900 in the direct method operating section. This can be extremely beneficial in an international reporting venue with differing tax rules affecting reporting entities in differing jurisdictions.

Further, IAS 7 also permits interest and dividends received and paid to be displayed as operating, investing, or financing activities; however, the presentation must be consistent from year to year. In the accompanying example in Appendix A to IAS 7, cash receipts from dividends 200 and interest 200 are displayed as investing inflows, yet they are included in the starting number, net profit before taxation as part of investment income of 500 . [See the accompanying Appendix A to IAS 7 for the complete example.]

It is our experience that understanding is often enhanced if financial accounting concepts are combined with a visual representation via journal entries and/or "T accounts." Consider a visual representation of the IAS 7 example:

|  | 200 |  | Investing inflow |
| :---: | ---: | ---: | :--- |
| Dash |  | 200 |  |
| Cash | 200 |  | Investing inflow |
| Interest Income |  | 200 |  |
| Interest Receivable | 100 |  | Minus adjustment |
| Interest Revenue |  | 100 |  |

The first two items are investing inflows, yet they are included in the starting number, net profit before taxation. Accordingly, a total of 500 ( 200 for dividends and 200 for interest and 100 for the noncash interest accrual) are removed from the operations section as a minus adjustment. The minus adjustment of 500 is included in the indirect reconciliation schedule. Under SFAS 95, no adjustments are needed in the indirect operations section for the first two entries above. Interest and dividends received and paid do not affect either cash received from customers or cash paid to suppliers and employees; consequently, these items do not affect the viability of our conversion tool.

As can be seen from the above analysis, as U.S. GAAP migrates to the IFRS cash flow reporting requirements of IAS 7, only minor adjustments in the application of our conversion tool will be needed. This will further enhance user understandability and thereby enable users to make informed decisions
regardless of the cash flow reporting format used. With financial statement users having the ability to easily adapt, firms will not have adapt their systems to convert to the direct method, although some may argue that such conversion can be somewhat easily accomplished. Thus, firms can maintain consistent reporting practices providing information that users can understand.

## SUMMARY AND CONCLUDING COMMENTS

Since the vast majority of U.S. companies provide only the indirect format when reporting cash flows from operating activities, it is helpful for users to be able to convert easily and quickly to the more userfriendly direct approach. Contrary to assertions made by the CFA Institute and the results of empirical research studies, this paper provides anecdotal evidence that supports the FASB's rationalization for the indirect approach. We provide an easy-to-use tool that generates reasonable approximations of critical direct method components in a timely manner for the companies we examine.

Although we cannot make statements about all companies that report their SCF under the indirect approach, our results are encouraging based on companies that voluntarily report under the direct approach. In addition, our procedure (tool) also provides educators with a quick and easy-to-follow classroom illustration of how to convert an indirect approach operations section to a direct approach. Whether the education is applied to accounting students or financial statement users gaining an understanding, our conversion tool can facilitate the learning process. The contribution of our study, like the empirical studies of the predictive value of direct method components, is an additional step in the ever-changing financial reporting environment.

## ENDNOTES

${ }^{1}$ In the governmental arena, a survey of municipal finance directors finds that finance directors, by more than a two-to-one margin, believe that the direct method approach provides the best information on operating cash flows (Smith \& Freeman 1996).
${ }^{2}$ The 2004 edition of Accounting Trends and Techniques indicates that 593 out of $600(98.8 \%)$ companies report using the indirect format.
${ }^{3}$ As of August 2010, the CFA Institute (formerly AIMR) had more than 100,000 members around the world, including 90,000 charterholders. To become a CFA Charterholder, candidates must possess a bachelor's degree from an accredited institution, or equivalent work experience, and must pass each of three six-hour exams.
${ }^{4}$ There are several ways to measure company size. The average total assets for all companies listed in the Compustat data base is $\$ 13,958,000$, while the average total assets for the firms in our sample is $\$ 5,442,000$. The two largest Compustat firms in terms of market cap are Apple Computer and Exxon. Both companies have market caps around $\$ 375,000,000$. By comparison, the two largest sampled companies are EMC and CVS with market caps around $\$ 50,000,000$.
${ }^{5}$ There are two basic approaches to the preparation of a direct-method operating section. Our conversion tool employs an indirect method operating section and an income statement. The other approach uses comparative balance sheets and an income statement.
${ }^{6}$ We include manual label changes for illustrative purposes only. We envision the use of a template with labels already in place for the cross-added products.
${ }^{7}$ Note that Krishnan \& Largay (2000) use the other approach to the preparation of a direct operating section: comparative balance sheets and an income statement.
${ }^{8}$ In a similar fashion, three of our sampled firms (CVS Caremark, River Rock, and Stantec) require us to combine major direct-method cash flow statement line items to maintain consistency with the illustrative guidance of SFAS 95. CVS Caremark reports cash paid for inventory and prescriptions dispensed of $\$ 17,445,000,000$ and cash paid to suppliers and employees of $\$ 3,342,000,000$. We follow the guidelines set forth in ASC 230-10-55-20 and develop one row, cash paid to suppliers and employees. River Rock reports cash paid to suppliers of $\$ 8,415$ and cash paid to employees of $\$ 7,254$. We combine these rows into one row, cash paid to suppliers and employees of $\$ 15,669$. Stantec reports cash paid to suppliers of $\$ 119,575,000$ and cash paid to employees of $\$ 188,445,000$ (Canadian dollars). We combine these rows into one row, cash paid to suppliers and employees of $\$ 308,020$.
${ }^{9}$ This industry/code needs further explanation. American Apparel, Inc., a Delaware corporation, was incorporated in Delaware on July 22, 2005 as Endeavor Acquisition Corp., a blank check company formed to acquire an operating business. On December 21, 2005, Endeavor Acquisition Corp.
consummated its initial public offering, and on December 18, 2006, entered into an Agreement and Plan of Reorganization, amended November 7, 2007, with American Apparel Inc., a California corporation ("Old American Apparel"), and its affiliated companies. The Acquisition was accounted for as a reverse merger and recapitalization of Old American Apparel. Accordingly, for accounting and financial reporting purposes, Endeavor Acquisition Corp. was treated as the acquired company, and Old American Apparel was treated as the acquiring company. American Apparel is a vertically-integrated manufacturer, distributor, and retailer of branded fashion basic apparel. It designs, manufactures, and sells clothing and accessories for women, men, children and babies.

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## APPENDIX A

LIST OF SAMPLED FIRMS

| Company Name / Central Index Key | SIC Code | Industry |
| :---: | :---: | :---: |
| American Apparel / 1336545 | 6770 | Blank Checks ${ }^{9}$ |
| Arden Group / 225051 | 5411 | Retail - Grocery Stores |
| Bio-Rad Laboratories / 12208 | 3826 | Laboratory Analytical Instruments |
| Chembio Diagnostics / 1092662 | 2834 | Pharmaceutical Preparations |
| China Teletech Limited / 1473652 | 4899 | Communication Services, NEC |
| CVS Caremark / 64803 | 5912 | Retail Drug Stores \& Proprietary Stores |
| EMC Corporation / 790070 | 3572 | Computer Storage Devices |
| Findex Com / 1089061 | 7372 | Services- Prepackaged Software |
| First Solar, Inc. / 1274494 | 3674 | Semiconductors \& Related Devices |
| Golden Enterprises Inc. / 42228 | 2090 | Misc. Food Preparations \& Kindred Products |
| Great Northern Iron Ore / 43410 | 6795 | Mineral Royalty Trading |
| Hickok Incorporated / 47307 | 3823 | Car Test Equipment |
| Hooker Furniture / 1077688 | 2510 | Household Furniture |
| ML Macadamia Orchards / 792161 | 100 | Agricultural Production- Crops |
| Northrop Grumman, Inc / 1133421 | 3812 | Search, Detection, Navigation, Guidance, Aeronautical Systems |
| NU Horizons Electronics / 718074 | 5065 | Wholesale-Electronic Parts \& Equipment, NEC |
| Orbital Corporation Limited / 880419 | 6794 | Patent Owners \& Lessors |
| Pope Resources / 784011 | 800 | Forestry |
| Rebornne (USA) / 1268238 | 2020 | Dairy Products |
| River Rock Entertainment Authority / 1288924 | 7900 | Services - Amusement \& Recreational |
| Southwest Royalties Institutional Income Fund X-C, LP / 825886 | 1311 | Crude Petroleum \& Natural Gas |
| Stanley Furniture Company / 797465 | 2511 | Wood Household Furniture (No Upholstered) |
| Stantec Inc. / 1131383 | 8711 | Services- Engineering Services |
| Tech Data / 790703 | 5045 | Wholesale-Computers \& Peripheral Equipment \& Software |
| Twenty Services Inc / 31704 | 6799 | Investors, NEC |
| Wuhan General Group / 842694 | 3564 | Industrial \& Commercial Fans \& Blowers \& Air Purifying Equipment |

## APPENDIX B

## SUMMARY RESULTS OF CONVERSION TOOL APPLIED TO SAMPLE

| American Apparel, Form 10-K - December 31, 2009 <br> (Dollars in thousands) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Actual | Tool | Difference | Diff/Actual* |
| Cash received from customers | \$559,089 | \$558,517 | \$572 | 0.1\% |
| Cash paid to suppliers + employees | $(488,858)$ | $(487,510)$ | $(1,348)$ | 0.3\% |
| Income taxes paid | $(16,901)$ | $(17,422)$ | 521 | $\mathrm{n} / \mathrm{a}^{* *}$ |
| Interest paid (net) | $(8,609)$ | $(8,602)$ | (7) | n/a** |
| Other | 482 | 220 | 262 | 54.4\% |
| Cash provided by operations | 45,203 | 45,203 | 0 |  |
| * Percentage amounts rounded. |  |  |  |  |

BIO-RAD Laboratories, Inc., Form 10-Q - March 31, 2011
(Dollars in thousands)

|  | Actual | Tool | Difference | Diff / Actual |
| :--- | ---: | ---: | ---: | :---: |
| Cash received from customers | $\$ 496,749$ | $\$ 496,022$ | $\$ 727$ | $0.1 \%$ |
| Cash paid to suppliers + employees | $(436,430)$ | $(443,926)$ | 7,496 | $-0.2 \%$ |
| Cash paid for interest | $(22,189)$ | $(16,766)$ | $(5,423)$ | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash paid for taxes | $(19,612)$ | $(21,076)^{* *}$ | 1,464 | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash received (paid) for other items | 1,264 | 5,528 | $(4,264)$ | $337.3 \%$ |
| Cash provided by continuing operations | 19,782 | 19,782 | 0 |  |

*Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.
** BIO-RAD Laboratories reports cash paid for taxes of $(18,373)$ and excess of tax benefits for stock based compensation of $(1,239)$.

## Chembio Diagnostics, Form 10-Q - March 31, 2011 <br> (Dollars in thousands)

Cash received from customers
Cash paid to suppliers + employees
Actual
$\$ 5,855,562$
$(4,292,294)$

Too
\$5,895,562
Difference
$(\$ 40,000)$
Diff / Actual
-0.7\%
$40,000 \quad 0.0 \%$

| Interest received | 1,310 | 1,310 | 0 | n/a |
| :---: | :---: | :---: | :---: | :---: |
| Cash paid for interest | $(4,436)$ | $(4,436)$ | 0 | n/a |
| Cash provided by operations | 1,560,142 | 1,560,142 | 0 |  |
| China Teletech Limited, Form 10-K - December 31, 2010 <br> (Dollars in thousands) |  |  |  |  |
|  | Actual | Tool | Difference | Diff / Actual |
| Cash received from customers | \$14,664,003 | \$14,664,004 | (\$1) | 0.0\% |
| Cash paid to suppliers + employees | (14,138,495) | $(14,145,089)$ | 6,594 | 0.0\% |
| Cash received for other income | 40 | 40 | 0 | 0.0\% |
| Cash paid for other expense | 0 | 113 | (113) | n/a |
| Interest received | 11 | 11 | 0 | n/a |
| Cash received for taxes | 2,775 | 9,255 | $(6,480)$ | n/a |
| Cash provided by operations | 528,334 | 528,334 | 0 |  |

## CVS Caremark, Form 10-Q - March 31, 2011 (Dollars in millions)

|  | Actual | Tool | Difference | Diff/Actual |
| :--- | ---: | :--- | ---: | :---: |
| Cash received from customers | $\$ 22,971$ | $\$ 25,457$ | $(\$ 2,486)$ | $-10.8 \%$ |
| Cash paid to suppliers + employees | $(20,787)^{*}$ | $(23,062)$ | 2,275 | $-10.9 \%$ |
| Interest received | 1 | 0 | 1 | $100.0 \%$ |
| Cash paid for interest | $(150)$ | $(134)$ | $(16)$ | $\mathrm{n} / \mathrm{a}^{* *}$ |
| Cash paid for taxes | $(169)$ | $(394)$ | 225 | $\mathrm{n} / \mathrm{a}^{* *}$ |
| Cash paid for discontinued operations | 0 | $(1)$ | 1 | $\mathrm{n} / \mathrm{a}$ |
| Cash provided by operations | 1,866 | 1,866 | 0 |  |

*CVS reports cash paid for inventory and prescriptions dispensed of 17,445 and cash paid to suppliers and employees of 3,342 . We combine these two lines into one line, cash paid to suppliers and employees.
** Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

## EMC Corporation, Form 10-Q - March 31, 2011 <br> (Dollars in thousands)

|  | Actual | Tool | Difference | Diff/Actual |
| :--- | ---: | ---: | ---: | ---: |
| Cash received from customers | $\$ 5,392,175$ | $\$ 5,385,760$ | $\$ 6,415$ | $0.1 \%$ |
| Cash paid to suppliers + employees | $(4,009,553)$ | $(3,950,325)$ | $(59,228)$ | $1.5 \%$ |
| Dividends and interest received | 33,927 | $(4,947)$ | 38,874 | $114.6 \%$ |


| Cash paid for Interest paid (net) | $(4,749)$ | $(18,688)$ | 13,939 | $\mathrm{n} / \mathrm{a}^{*}$ |
| :--- | ---: | ---: | ---: | ---: |
| Cash paid for taxes | $(277,023)$ | $(277,023)$ | 0 | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash provided by operations | $1,134,777$ | $1,134,777$ | 0 |  |

*Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

## Findex Com, Form 10-K - December 31, 2010 <br> (Dollars in thousands)

|  | Actual | Tool | Difference | Diff/Actual |
| :--- | ---: | ---: | ---: | :---: |
| Cash received from customers | $\$ 1,750,711$ | $\$ 1,756,120$ | $(\$ 5,409)$ | $-0.3 \%$ |
| Cash paid to suppliers + employees | $(1,740,367)$ | $(1,737,485)$ | $(2,882)$ | $0.2 \%$ |
| Other operating receipts | 2,098 | 2,322 | $(224)$ | $10.7 \%$ |
| Interest paid | $(10,234)$ | $(18,525)$ | 8,291 | $\mathrm{n} / \mathrm{a}^{*}$ |
| Interest received | 224 | 0 | 224 | $100.0 \%$ |
| Cash provided by operations | 2,432 | 2,432 | 0 |  |

*Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

First Solar, Inc., Form 10-Q - March 31, 2011
(Dollars in thousands)

|  | Actual | Tool | Difference | Diff/Actual |
| :--- | ---: | ---: | ---: | :---: |
| Cash received from customers | $\$ 471,600$ | $\$ 459,572$ | $\$ 12,028$ | $2.6 \%$ |
| Cash paid to suppliers + employees | $(495,427)$ | $(495,165)$ | $(262)$ | $0.1 \%$ |
| Interest received | 1,984 | 3,023 | $(1,039)$ | $52.4 \%$ |
| Cash paid for interest | $(3,034)$ | $(102)$ | $(2,932)$ | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash paid for taxes | $(18,535)$ | $(12,039)$ | $(6,496)$ | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash received (paid) for other items | $(401)$ | 898 | $(1,299)$ | $323.9 \%$ |
| Cash used in operations | $(43,813)$ | $(43,813)$ | 0 |  |

*Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

# Golden Enterprises Inc. Form 10-K - March 4, 2011 <br> (Dollars in thousands) 

Actual Tool Difference Diff/Actual

| Cash received from customers | \$96,722,788 | \$96,722,788 | \$0 | 0.0\% |
| :---: | :---: | :---: | :---: | :---: |
| Cash paid to suppliers + employees | (90,534,255)* | $(90,534,255)$ | 0 | 0.0\% |
| Cash paid for interest | $(280,127)$ | $(280,127)$ | 0 | n /a |
| Cash paid for taxes | $(1,462,631)$ | $(1,462,631)$ | 0 | n/a |
| Other | 154,525 | 154,525 | 0 | 0.0\% |
| Cash provided by operations | 4,600,300 | 4,600,300 | 0 |  |
| *Golden Enterprises reports cash paid to suppliers and employees of 46,703,613 and cash paid for operating expenses of $43,830,642$. We combine these two lines into one line, cash paid to suppliers and employees. |  |  |  |  |
| Great Northern Iron Ore, Form 10-K - December 31, 2010 <br> (Dollars in thousands) |  |  |  |  |
|  | Actual | Tool | Difference | Diff/Actual |
| Cash received from royalties and rents | \$18,325,585 | \$18,325,585 | \$0 | 0.0\% |
| Cash paid to suppliers + employees | $(2,916,890)$ | $(2,916,890)$ | 0 | 0.0\% |
| Cash received for interest | 74,076 | 74,076 | 0 | 0.0\% |
| Cash provided by operations | 15,482,771 | 15,482,771 | 0 |  |
| Hickok Incorporated, Form 10-Q - March 31, 2011 (Dollars in thousands) |  |  |  |  |
|  | Actual | Tool | Difference | Diff / Actual |
| Cash received from customers | \$2,320,549 | \$2,320,549 | \$0 | 0.0\% |
| Cash paid to suppliers + employees | $(2,783,153)$ | $(2,786,681)$ | 3,528 | -0.1\% |
| Interest received | 474 | 0 | 474 | 100.0\% |
| Other | 0 | 4,002 | $(4,002)$ | n/a |
| Cash used in operations | $(462,130)$ | $(462,130)$ | 0 |  |
| Hooker Furniture, Form 10-K - January 30, 2011 (Dollars in thousands) |  |  |  |  |
|  | Actual | Tool | Difference | Diff/Actual |
| Cash received from customers | \$212,142 | \$213,371 | $(\$ 1,229)$ | -0.6\% |
| Cash paid to suppliers + employees | $(225,857)$ | $(227,180)$ | 1,323 | -0.6\% |
| Insurance proceeds on casualty loss | 1,708 | 1,708 | 0 | n /a |
| Income taxes paid | $(3,938)$ | $(3,937)$ | (1) | n/a* |
| Interest paid (net) | (93) | 0 | (93) | n/a* |
| Cash used in operations | $(16,038)$ | $(16,038)$ | 0 |  |

*Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

## ML Macadamia Orchards, L.P., Form 10-Q - March 31, 2011 (Dollars in thousands)

|  | Actual | Tool | Difference | Diff/Actual |
| :--- | ---: | ---: | ---: | :---: |
| Cash received from customers | $\$ 5,937$ | $\$ 5,865$ | $\$ 72$ | $1.2 \%$ |
| Cash paid to suppliers + employees | $(3,814)$ | $(3,686)$ | $(128)$ | $3.4 \%$ |
| Cash received for interest | 1 | 0 | 1 | $100.0 \%$ |
| Cash paid for interest | $(112)$ | $(191)$ | 79 | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash received (paid) for other items | 0 | 44 | $(44)$ | $\mathrm{n} / \mathrm{a}$ |
| Cash paid for taxes | 0 | $(20)$ | 20 | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash provided by operations | 2,012 | 2,012 | 0 |  |

*Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

## Northrop Grumman, Inc., Form 10-Q - March 31, 2011 <br> (Dollars in millions)

|  | Actual | Tool | Difference | Diff/Actual |
| :--- | ---: | ---: | ---: | :---: |
| Cash received from customers | $\$ 6,469$ | $\$ 6,489$ | $(\$ 20)$ | $-0.3 \%$ |
| Cash paid to suppliers + employees | $(6,202)$ | $(6,335)$ | 133 | $-2.1 \%$ |
| Cash paid for interest | $(96)$ | $(58)$ | $(38)$ | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash received (paid) for taxes | $(55)^{* *}$ | 37 | $(92)$ | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash received (paid) for other items | $(4)$ | $(21)$ | 17 | $425.0 \%$ |
| Cash provided by continuing operations | 112 | 112 | 0 |  |

*Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.
** Northrop Grumman reports cash paid for taxes of (46) and excess of tax benefits from stock based compensation of (9). We combine these two lines into one line, cash paid for taxes


| Cash provided by operating activities | 8,950 | 8,950 | 0 |  |
| :---: | :---: | :---: | :---: | :---: |
| *Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach. |  |  |  |  |
| Rebornne (USA), Form 10-Q - December 31, 2010 <br> (Dollars in thousands) |  |  |  |  |
| Cash received from customers | Actual $\$ 969,614$ | Tool $\$ 969,614$ | Difference \$0 | $\begin{gathered} \text { Diff/Actual } \\ 0.0 \% \end{gathered}$ |
| Cash paid to suppliers + employees | $(1,893,739) *$ | $(1,893,739)$ | 0 | 0.0\% |
| Cash received for other income | 308 | 308 | 0 | 0.0\% |
| Interest paid | $(2,064)$ | $(2,064)$ | 0 | 0.0\% |
| VAT and other tax refunds | 158,014 | 158,014 | 0 | 0.0\% |
| Cash used in operating activities | $(767,867)$ | $(767,867)$ | 0 |  |
| *Rebornne reports cash paid to suppliers and employees of $1,837,308$ and cash paid for selling expenses of 56,431 . We combine these two lines into one line, cash paid to suppliers and employees. |  |  |  |  |
| River Rock Entertainment Authority, Form 10-Q - March 31, 2011 (Dollars in thousands) |  |  |  |  |
|  | Actual | Tool | Difference | Diff/Actual |
| Cash received from customers | \$31,472 | \$31,515 | (\$43) | -0.1\% |
| Cash paid to suppliers + employees | $(15,669) *$ | $(15,712)$ | 43 | -0.3\% |
| Cash paid for compact revenue sharing | (334) | (334) | 0 | n/a |
| Cash provided by operations | 15,469 | 15,469 | 0 |  |
| *River Rock reports cash paid to suppliers of 8,415 and cash paid to employees of 7,254 . We combine these two lines into one line, cash paid to suppliers and employees. |  |  |  |  |
| Southwest Royalties Institutional Income Fund X-C, LP <br> Form 10-K - December 31, 2010 <br> (Dollars in thousands) |  |  |  |  |
|  | Actual | Tool | Difference | Diff /Actual |
| Cash received from customers | \$328,898 | \$328,898 | \$0 | 0.0\% |
| Cash paid to suppliers + employees | $(59,682)$ | $(59,682)$ | 0 | 0.0\% |
| Cash received from interest | 204 | 204 | 0 | 0.0\% |


| Cash provided by operations | 269,420 | 269,420 | 0 |  |
| :---: | :---: | :---: | :---: | :---: |
| Stanley Furniture Company, Form 10-Q - April 2, 2011 (Dollars in thousands) |  |  |  |  |
|  | Actual | Tool | Difference | Diff / Actual |
| Cash received from customers | \$24,139 | \$24,179 | (\$40) | -0.2\% |
| Cash paid to suppliers+ employees | $(28,330)$ | $(27,861)$ | (469) | 1.7\% |
| Cash paid for interest | 0 | (538) | 538 | n /a |
| Cash paid for taxes | (52) | (52) | 0 | n/a |
| Cash received for other items | 0 | 29 | (29) | n/a |
| Cash used by operations | $(4,243)$ | $(4,243)$ | 0 |  |

Stantec Inc., Form 6-K - September 30, 2010
(In thousands of Canadian dollars)

|  | Actual | Tool | Difference | Diff / Actual |
| :--- | ---: | ---: | ---: | :---: |
| Cash received from clients | $\$ 363,423$ | $\$ 366,385$ | $(\$ 2,962)$ | $-0.8 \%$ |
| Cash paid to suppliers+ employees | $(308,020)^{*}$ | $(312,401)$ | 4,381 | $-1.4 \%$ |
| Interest received | 639 | 0 | 639 | $\mathrm{n} / \mathrm{a}$ |
| Cash paid for interest | $(4,160)$ | $(2,286)$ | $(1,874)$ | $\mathrm{n} / \mathrm{a}^{* * *}$ |
| Cash paid for taxes | $(8,160)^{* *}$ | $(8,225)$ | 65 | $\mathrm{n} / \mathrm{a}^{* * *}$ |
| Dividends received from equity | 65 | 65 | 0 | $\mathrm{n} / \mathrm{a}$ |
| investments | 0 | 249 | $(249)$ | $\mathrm{n} / \mathrm{a}$ |
| Cash paid for other | 43,787 | 43,787 | 0 |  |
| Cash provided by operations |  |  |  |  |

*Stantec reports cash paid to suppliers of 119,575 and cash paid to employees of 188,445. We combine these lines into one line, cash paid to suppliers and employees.
**Stantec reports cash paid for income taxes of 12,359 and income taxes recovered of 4,199. We net these two lines into one line, cash paid for taxes.
*** Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

## Tech Data Form 10-Q - October 31, 2010 <br> (Dollars in thousands)

|  | Actual | Tool | Difference | Diff / Actual |
| :--- | ---: | ---: | ---: | :---: |
| Cash received from customers | $\$ 17,068,150$ | $\$ 17,071,552$ | $(\$ 3,402)$ | $0.0 \%$ |
| Cash paid to suppliers + employees | $(17,077,193)$ | $(17,071,430)$ | $(5,763)$ | $0.0 \%$ |
| Cash paid for interest | $(8,359)$ | $(13,947)$ | 5,588 | $\mathrm{n} / \mathrm{a}^{*}$ |


| Cash paid for taxes | $(54,424)$ | $(58,249)$ | 3,825 | $\mathrm{n} / \mathrm{a}^{*}$ |
| :--- | ---: | ---: | ---: | ---: |
| Cash received from other sources | 0 | 248 | $(248)$ | $\mathrm{n} / \mathrm{a}$ |
| Cash used in operating activities | $(71,826)$ | $(71,826)$ | 0 |  |
|  |  |  |  |  |
| *Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect |  |  |  |  |
| approach. |  |  |  |  |

Twenty Services Inc Form 10-K - December 31, 2010 (Dollars in thousands)

|  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: |
|  | Actual | Tool | Difference | Diff/Actual |
| Cash received from customers | $\$ 103,993$ | $\$ 103,993$ | $\$ 0$ | $0.0 \%$ |
| Cash paid to suppliers+ employees | $(129,923)$ | $(132,424)$ | 2,501 | $-1.9 \%$ |
| Cash received for taxes | 0 | 2,501 | $(2,501)$ | $\mathrm{n} / \mathrm{a}^{*}$ |
| Cash received from other sources | 73 | 73 | 0 | $\mathrm{n} / \mathrm{a}$ |
| Cash used in operations | $(25,857)$ | $(25,857)$ | 0 |  |

*Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

## Wuhan General Group, Form 10-Q - March 31, 2011* (Dollars in thousands)

|  | Actual | Tool | Difference | Diff / Actual |
| :--- | ---: | ---: | ---: | :---: |
| Cash received from customers | $\$ 26,782,266$ | $\$ 26,852,179$ | $(\$ 69,913)$ | $-0.3 \%$ |
| Cash paid to suppliers + employees | $(19,190,945)$ | $(18,291,774)$ | $(899,171)$ | $4.7 \%$ |
| Interest received | 8,762 | 8,763 | $(1)$ | $0.0 \%$ |
| Cash paid for interest | $(1,269,895)$ | $(1,269,896)$ | 1 | $\mathrm{n} / \mathrm{a}^{* *}$ |
| Cash paid for taxes | $(3,108,288)$ | $(4,030,163)$ | 921,875 | $\mathrm{n} / \mathrm{a}^{* *}$ |
| Cash paid for other items | 0 | $(47,208)$ | 47,208 | $\mathrm{n} / \mathrm{a}$ |
| Miscellaneous receipts | 50,412 | 50,412 | 0 | $0.0 \%$ |
| Cash provided by operations | $3,272,312$ | $3,272,313$ | $(1)$ |  |

*Wuhan's income statement displays net income of $1,411,794$. Wuhan's indirect reconciliation schedule starts with net income of $1,411,795$. The difference of one dollar is not explained and immaterial.
**Cash paid for interest and cash paid for taxes are required supplemental disclosures under the indirect approach.

