

The Construction of Cash Flow Statements: Understanding the Indirect Method Cash Flow Statement

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We have always been aware that our MBA students have more trouble truly understanding the indirect method cash flow statement than any other financial statement. In our opinion this is a direct result of the way in which the indirect method statement is taught in introductory accounting classes. Most all accounting texts start by computing cash flow from operations before talking about cash from investing and financing. In the simplest case net income is adjusted for depreciation, amortization, and gains and losses. Then adjustments are made for changes in the working capital accounts from the beginning to the end of the period. This is followed by some “hand-waving” to the effect that we might have to make some adjustments prior to this for changes in the working capital accounts not associated with operations. But the “hand waving” is soon forgotten and only the “find the differences in the working capital accounts on the balance sheet” is remembered.

Logically starting with operations does not make sense since cash flow from operations is a residual category. That is cash flows from financing and investing are more tightly defined and all remaining cash flows, the residual, are operating cash flows. Our approach is to compute cash flows from financing and investing first and then, what is left, relates to operations. As we shall demonstrate this facilitates an understanding how investing and financing transactions can impact the balances of working capital accounts, thus invalidating the logic of obtaining cash from operations by adjusting for changes in the balance sheet working capital accounts from the beginning to the end of the year without making non-operating adjustments first (which we shall refer to as the “balance sheet comparison” approach)¹.

To impress upon your students that this “balance sheet comparison” approach is not the right one just ask them to pull up a random 10K from Edgar and the probability is that the

¹ P. Hribar and D. Collins, Errors in Estimating Accruals: Implications for Empirical Research. *Journal of Accounting Research*, March, 2002. This article discusses the impact on accounting research conclusions of using a measure of cash flow from operations constructed from changes in working capital accounts between two balance sheet dates. At that time they estimated that approximately 75% of all firms in the Compustat data base present non-articulated changes in current accounts (the change in the working capital account balances do not agree with the adjustments in the operating section of the indirect method cash flow statement). We recently downloaded 4,365 companies from Calc Bench and only 80 of them showed adjustments for inventory and receivable changes in the operating section of the indirect method cash flow statement in the derivation of cash from operations which were equal to changes in these accounts from the beginning to the ending balance sheet (less than 2%).

number shown for a working capital adjustments in the indirect cash flow statement is not the difference between the beginning and ending balance sheet numbers. The propensity of reclassifications, foreign currency translations, divestitures of divisions or subsidiaries, the acquisition of new businesses, transactions using stock as cash, etc. has dramatically increased in the last twenty years making the “balance sheet comparison approach” grossly inaccurate.

Our objective is to get MBA students and readers of financial statements more generally aware of what they are looking at when they peruse the indirect method cash flow statement. This reconciliation of net income to cash flow from operations helps create an understanding of how cash is consumed and generated in the creation of net income. Systematic changes in operating efficiencies and inefficiencies, improving or declining company financial health, strategic shifts or changing business models can be best observed and understood through an intelligent reading of the indirect method cash flow statement. This is oftentimes impossible to see when looking at the balance sheet alone as too many investing and financing decisions now impact the working capital accounts. The modern firm is a complex bundle of investments and operations and the indirect method cash flow statement helps to unbundle the investing and financing from operations.²

To reiterate, MBA students and other users of financial statements are not statement preparers. While they need to understand how statements are prepared and the rules going into preparing them, their primary need is to be able to look at finished financial statements and infer the underlying economic events which caused the numbers to be what they are. That is, they need to work the accounting system backwards and the indirect method cash flow statement is an essential tool in that process.

Our Basic Teaching Approach to the Cash Flow Statement

As stated in our previous note, when teaching accounting we attempt to walk the fine line between using simplicity in examples while not creating the wrong conceptual accounting frame in students’ minds that will inhibit their ability to tackle the more complex problems they will encounter when analyzing actual financial statements. Almost anyone with experience teaching the indirect method for cash flow from operations has encountered this problem: most all students believe at some point that the amounts relating to adjustments to net income to arrive at cash from operating activities are simply the changes in all the working capital accounts on the balance sheet from the beginning to the end of the period.

Our approach to teaching the cash flow begins early in the course. It will become evident in the outline of our approach which follows:

1. The Journal—shortly after we first discuss transactions, debits and credits, income statements and balance sheets we begin to work problems of the type: Here is a

² The investing and financing impact on working capital accounts can distort even some basic ratio computations. While we tend to rely on ratios be aware that inventory, receivable, or account payable turns might be distorted due to contamination of the numbers in the associated accounts due to financing and investment entries.

- beginning balance sheet and a set of transactions that occurred during the period. Make journal entries and adjusting entries, post to t-accounts, make up the income statement and the balance sheet and close the accounts. In class we begin to ask them to think of the nature of transactions, to categorize them by type (operations, investing and financing) and to look at the cash t-account and put a label by each entry as to whether or not it arose from an operational, financial or investing transaction. We then make a list where the transactions are sorted by category (a cash flow statement).
2. Label—going forward, when making a journal entry, we ask students to label every transaction that involves cash as either operations (OPR), financing (FIN), or Investing (INV). At this point the transactions are basic ones and it is easy for them to generate the labels. Shortly thereafter we ask students to label non-cash transactions as well. This forces them to think more about the nature of the transactions themselves rather than just about the mechanics of entering them into an accounting system (remember we are educating users, not preparers of financial statements). Of course, someone will ask, “What is a leasing transaction?” And they become aware that there are transactions with dual identities as in the lease case (financing and investing). They now have a new transaction label (IF). As you work more sophisticated and detailed problems the labeling expands. For instance you might *reclassify* something on the balance sheet from noncurrent to current (REC).
 3. Direct first—when it comes time to give rigorous definitions to cash flows we define and discuss financing and investing in detail and announce that operations is every flow that isn’t labeled investing or financing, that operations is the residual category and should be thought about last. We then prepare a direct method cash flow statement (which they have already seen snippets of by now). Given the labeling, this is a relatively easy task. Conceptually it is, but for a real company with billions of transactions, it can become a logistical nightmare to collect cash flows by category, requiring a very detailed and sophisticated system of journals and accounts.
 4. Indirect—when going to the indirect method cash flow statement we always begin by entering cash flow from investing and financing first as this part of the statement is identical to the direct method statement.
 5. Worksheet—we will explain the logic used in the actual indirect method cash flow portion shortly. This will be done in the context of a work sheet.

Series of Examples: Basic Transaction Set 1

We now go through in great detail a series of examples that increase in complexity. To the extent possible, we have made them build naturally on one another. We begin with the balance sheet at August 31, 2018 for the hypothetical company, FIOCF Inc.³ We will follow the general approach outlined above.

³ FIOCF = Financing, Investing, Operating Cash Flow

Exhibit 1

FIOCF, Inc.
Balance Sheet
as of August 31, 2018
(in thousands)

Assets		Liabilities and Equities	
8/31/2018		8/31/2018	
Cash and cash equivalents	\$310.0	Accounts Payable	\$75.0
Accounts Receivable	187.0	Salaries Payable	50.0
		Interest payable	-
Inventories	345.0	Dividends Payable	5.0
Prepaid Rent		Note Payable	200.0
Total Current Assets:	\$842.0	Total Current Liabilities:	\$330.0
Property & Equipment	\$600.0	Bond Payable	\$100.0
Accumulated Depreciation	120.0	Total Long Term Liabilities	\$100.0
Equipment, net	\$480.0		
		Common Stock, \$1 par (185,000 shares Outstanding)	\$350.0
Total Non-current Assets:	\$480.0	Retained Earnings	\$542.0
		Shareholders' Equity:	\$892.0
Total Assets	\$1,322.0	Total Liabilities & Shareholders' Equity	\$1,322.0

An assumed set of transactions for the month of September, 2018 is presented in Exhibit 2. Our general approach will be to record all transactions for the month, devise a labeling system for the transactions which will aid the construction of cash flow statements, and then use a worksheet to construct the indirect method statement. The initial set of transactions is very basic. The journal entries are presented in Exhibit 3, the associated t-accounts in Exhibit 4, the income statement for the month in Exhibit 5, and the end of the month balance sheet in Exhibit 6.

Exhibit 2

Transaction Set 1

FIOCF Inc. engaged in the following transactions in September 2018.

- a. On September 1, 2018, issued 5 thousand shares of common stock for \$225 thousand.
- b. Purchased merchandise inventory on account from various suppliers for \$900 thousand.
- c. Incurred Salary expenses of \$863 thousand.
- d. Paid cash for salaries to employees in the amount of \$800 thousand.
- e. Sales were \$2,500 thousand, all on account.
- f. Collected accounts receivable of \$2,200 thousand.
- g. Paid rent of \$450 thousand for the months of September, October and November 2018.
- h. Depreciation expense for September 2018 was \$10 thousand.
- i. Paid accounts payable of \$860 thousand.
- j. On September 7, paid dividends of \$5 thousand.
- k. The 90-day note payable was issued on August 31, 2018 and carries an interest rate of 1% per month, therefore interest expense on the note for the month of September 2018 is \$2 thousand. All interest will be paid when the note matures on November 30, 2018.
- l. The bonds payable were issued on August 31, 2018, and interest is not payable until the bonds mature on October 31, 2023. For the month of September 2018, the accrued interest on the bonds was \$1 thousand.
- m. During the month of September, 2018, received cash payments totaling \$69 thousand for services to be performed in October 2018.
- n. At the close of business on September 30, 2018, bought a building for \$200 thousand cash.
- o. Cost of Goods Sold for the month of September 2018 was \$983 thousand.

Notice the two particular columns in the Exhibit 3 journal⁴, the “CFS Direct Method” column and the CFS Indirect Method” column. The nature of every transaction that involves cash is analyzed as to type, which is entered into the CFS Direct Method column (FIN for financing, OPR for operations, and INV for investing). The nature of every transaction that does not involve cash and is NOT operations is labeled in this column (there are no such non-cash transactions in this first simple example).

At this point of the learning process we try to instill in students that there is not just one definition of what constitutes investing, financing or operations. It oftentimes depends on the specific nature of the business. For instance, Webster Financial states in its 10K, “Cash flows from the sale of loans that were originated specifically for resale are presented as operating cash

⁴ The journal entries are straight-forward and we will not explain them in detail here. The first examples of using the worksheet should have simple journal entries so that students can focus on the structure of the cash flow statement. We close to an income summary account instead of directly to retained Earnings.

flows. Cash flows from the sale of loans originated for investment then subsequently transferred to held for sale are presented as investing cash flows.” Toll Bros., a home building company, includes land acquisition costs, land development cost, and home construction costs in its inventory account. For Toll Bros. these activities are operating activities and the change in inventory is included as an adjustment to net income in the computation of cash flow from operations in the indirect method cash flow statement. They are not investing cash flows as they would likely be in a run of the mill company buying land and buildings.

Exhibit 3						
Ref.	CFS Direct Method	Account to Debit	Accounts to Credit	Debit	Credit	CFS Indirect Method
(a)	FIN	Cash	Common Stock	225	225	
(b)		Inventory	Accounts Payable	900	900	
(c)		Salary Expense	Salaries Payable	863	863	
(d)	OPR	Salaries Payable	Cash	800	800	
(e)		A/R	Sales Revenue	2500	2500	
(f)	OPR	Cash	A/R	2200	2200	
(g)	OPR	Rent expense Prepaid rent	Cash	150 300	450	
(h)		Depreciation Expense	Accumulated Depreciation	10	10	
(i)	OPR	Accounts Payable	Cash	860	860	
(j)	FIN	Dividends Payable	Cash	5	5	
(k)		Interest Expense	Interest Payable (current)	2	2	
(l)		Interest Expense	Interest Payable (noncurrent)	1	1	
(m)	OPR	Cash	Unearned Revenue (current)	69	69	
(n)	INV	Property & Equipment	Cash	200	200	
(o)		Cost of Goods Sold	Inventory	983	983	
(c1)		Sales Revenue	Income Summary	2,500	2,500	
(c2)		Income Summary	Cost of Goods Sold	983	983	
(c3)		Income Summary	Salary Expense	863	863	
(c4)		Income Summary	Interest Expense	3	3	
(c5)		Income Summary	Depreciation Expense	10	10	
(c6)		Income Summary	Rent expense	150	150	
(c7)		Income Summary	Retained Earnings	491	491	

Once the journal entries are made (including adjusting and closing entries) they are entered into the ledger, the set of t-accounts shown in Exhibit 4. In our examples we will color-code many entries in t-accounts and in the indirect method cash flow worksheet. That way a student can see immediately the many different types of transactions that can impact any type of account.

Operating (OPR)	
Financing (FIN)	
Investing (INV)	
Reclassification (REC)	

Exhibit 4

CURRENT ASSETS											
Cash			Accounts Receivable - Current			Inventory			Prepaid Rent		
BB	310.0		BB	187.0		BB	345.0		BB	0.0	
(a)	225.0	800.0 (d)	(e)	2500.0	2200.0 (f)	(b)	900.0	983.0 (o)	(g)	300.0	
(f)	2200.0	450.0 (g)									
(m)	69.0	860.0 (i)									
		5.0 (j)		487.0			262.0			300.0	
		200.0 (n)									
	489.0										
NONCURRENT ASSETS											
Property & Equipment			Contra-assets								
BB	600.0		Accumulated Depreciation								
(n)	200.0				120.0 BB						
					10.0 (h)						
	800.0				130.0						
CURRENT LIABILITIES											
Accounts Payable			Salaries Payable			Interest Payable					
	75.0 BB			50.0 BB			0.0 BB				
(i)	860.0	900.0 (b)	(d)	800.0	863.0 (c)		2.0 (k)				
	115.0				113.0		2.0				
90-day Note Payable			Dividends Payable			Unearned Revenue					
	200.0 BB			5.0 BB	5.0 BB		0.0 BB				
			(j)				69.0 (m)				
	200.0			0.0			69.0				
NONCURRENT LIABILITIES											
Bonds Payable			Interest Payable								
	100.0 BB			0.0 BB							
				1.0 (l)							
	100.0			1.0							
EQUITIES											
Common Stock			Retained Earnings								
	350.0 BB			0.0	542.0 BB						
	225.0 (a)				491.0 (c7)						
	575.0				0.0						
					1033.0						
TEMPORARY ACCOUNTS											
Revenues and Gains											
Sales											
(c1)	2500.0	2500.0 (e)									
	0.0										
Expenses and Losses											
Cost of Goods Sold			Salaries			Rent			Depreciation		
(o)	983.0		(c)	863.0		(g)	150.0		(h)	10.0	
		983.0 (c2)			863.0 (c3)			150.0 (c6)			10.0 (c5)
	0.0			0.0			0.0			0.0	
			(k)	2.0					(c2)	983.0	2500.0 (c1)
			(l)	1.0	3.0 (c4)				(c3)	863.0	
									(c4)	3.0	
									(c5)	10.0	
									(c6)	150.0	
									(c7)	491.0	
										0.0	

The income statement for the month is presented in Exhibit 5 and the ending balance sheet in Exhibit 6. We now get to the task of preparing the cash flow statement. Preparing the

EXHIBIT 5	
FIOCF, Inc.	
Income Statement	
Month ended September 30, 1918	
(in thousands)	
Sales	\$ 2,500.0
Cost of Goods Sold	983.0
Gross Margin	1,517.00
Salaries	(863.00)
Depreciation	(10.00)
Rent	(150.00)
Interest Expense	(3.00)
Net Income	\$ 491.0

direct method cash flow statement is a conceptually easy task. Go to the cash t-account in Exhibit 4 where the entries are already color coded as to function and prepare the statement which is shown in Exhibit 8. You should mention that some aggregation might be necessary—for example, customer receipts of \$2,269 consist of the \$2,000 received from customers for sales plus \$269 of customer prepayments received during the month. You might also reiterate that, although conceptually simpler than the indirect method presentation, the direct method statement

Exhibit 8	
FIOCF, Inc.	
Direct Method Cash Flow Statement	
Month ended September 30, 1918	
(in thousands)	
Cash Flow From Operations:	
Receipts from Customers	\$ 2,269.0
Payments for Wages, Salaries, etc	(800.0)
Payments to Suppliers	(860.0)
Payments for Rent	(450.0)
Cash Flow From Operations	\$ 159.0
Cash Flow for Investing:	
Purchase Property & Equipment	(200.0)
Cash Flow from Investing	\$ (200.0)
Cash Flow from Financing:	
Pay Dividend	(5.0)
Sell Common Stock	225.0
Cash Flow from Financing	\$ 220.0
Cash at [Begin Date]	\$ 310.0
Change in Cash	179.0
Cash at [End Date]	\$ 489.0

is much more costly and time consuming to prepare. Since there may be billions of individual cash transactions in a large firm you must put together the journals and recording mechanisms to collect cash by functions. We always prepare the direct method statement first because, in preparing the indirect method statement we will enter cash flows from investing and financing first, and we will also then know the cash flow from operations which will be the target number to get when we prepare the indirect method statement.

In the next section we will describe the indirect method worksheet using our simple example. There are many possible forms for worksheets and we will show a few others in an appendix.

Exhibit 6					
FIOCF, Inc.					
Balance Sheets					
as of September 30, 2018					
(in thousands)					
Assets			Liabilities and Equities		
	9/30/2018	8/31/2018		9/30/2018	8/31/2018
Cash and cash equivalents	\$489.0	\$310.0	Accounts Payable	\$115.0	\$75.0
Accounts Receivable	487.0	187.0	Salaries Payable	113.0	50.0
Inventories	262.0	345.0	Interest payable	2.0	-
Prepaid Rent	300.0		Dividends Payable	-	5.0
Total Current Assets:	\$1,538.0	\$842.0	Unearned Revenue	69.0	
			Note Payable	200.0	200.0
Property, Plant & Equipment	\$800.0	\$600.0	Total Current Liabilities:	\$499.0	\$330.0
Accumulated Depreciation	130.0	120.0	Interest Payable	\$ 1.0	
Equipment, net	\$ 670.0	\$ 480.0	Bond Payable	100.0	\$100.0
			Total LongTerm Liabilities	\$101.0	\$100.0
Total Non-current Assets:	\$670.0	\$480.0	Common Stock, \$1 par (185,000 shares Outstanding)	\$575.0	\$350.0
Total Assets	\$2,208.0	\$1,322.0	Retained Earnings	\$1,033.0	\$542.0
			Shareholders' Equity:	\$1,608.0	\$892.0
			Total Liabilities & Shareholders' Equity	\$2,208.0	\$1,322.0

The Worksheet

The worksheet we will be using is based on the basic accounting identity, Assets = Liabilities + Equities.

Now, Cash + Other Current Assets (OCA) + Noncurrent Assets (NCA) = Current Liabilities (CL) + Noncurrent Liabilities (NCL) + Shareholders' Equity (SE). Rearrange terms and subtract the beginning balance sheet from the ending balance sheet and we have the basic equation for the worksheet.

$$\Delta \text{CASH} = \Delta \text{CL} - \Delta \text{OCA} + \Delta \text{NCL} - \Delta \text{NCA} + \Delta \text{SE}$$

Where

$$\Delta \text{CASH} = \text{Cash}_{\text{Ending balance}} - \text{Cash}_{\text{Beginning balance}}, \text{ etc.}$$

The worksheet is depicted in Exhibit 7. The worksheet is essentially an accounting ledger. The t-accounts, with the exception of cash, are just flattened out. The cash account, because we will be making many entries to it, simply needs more space. And we will split the cash account into three sections—operations, financing and investing. Many of the entries we will make in the worksheet are identical to posting transaction journal entries into t-accounts. In the appendix, as mentioned, we will show a few other formats for the worksheet as well as an alternative logic to run the worksheet to compute operating cash flows.

Since the worksheet is essentially a ledger whenever we make any entry into the worksheet *debits must equal credits* (you must keep reminding students of this!) to assure the accounting equation remains in balance. We have entered the beginning and ending balance sheets for FIOCF in exhibit 7. The procedure for filling out the worksheet is as follows:

STEP 1: Enter net income into the worksheet as an estimate of cash flow from operations. The purpose of the worksheet is to reconcile the net income number with cash flow from operations.

STEP 2: Enter cash flows from investing and financing which we have already computed when we constructed the direct method cash flow statement.

A few comments about (1) and (2): When we say “enter” we mean make a journal entry with equal debits and credits to keep the balance sheet in balance. So when we enter net income as an estimate of cash from operations we are making the journal entry given by

(1)	Cash –operations.....	491	
	Retained Earnings...		491

This journal entry assumes every revenue and expense, gain and loss in the income statement is a cash flow. If this were the case then the only accounts that would be impacted on the balance sheet would be the cash account and the retained earnings account. Of course, we know this generally not to be true and therefore must correct this assumption as we gather information to make it “more correct”. As we enter information into the worksheet we are correcting the initial estimate—we are creating the required reconciliation between net income and cash flow from operations. When we are done our cash flow from operations should be the same as it was in the direct method statement.

Entering all of the cash flows associated with financing and investing from the direct method statement, (2) –(4), means we just enter as regular transactions (a), (j) and (n) from the journal. For example,

(2)	Cash-financing.....	225	
	Common Stock...		225

This will get a tad more complicated when there are gains or losses in some of the investing and financing cash transactions. We will illustrate that in the second iteration of the example.

STEP 3: Enter all noncash investing and financing transactions. These should have been labeled in the CFS Indirect Column. There are none in this first simple example. We will encounter these in the next iteration of the example.

STEP 4: Enter all reclassifications labeled as such in the CFS Indirect Column. None in this example.

STEP 5: “Plug” all t-account balances in the work sheet to make them balance. The off-setting debit or credit goes to the operating section in the cash-operations section of the worksheet as all investing and financing transactions have been accounted for.

In the Exhibit 7 worksheet these are entries (5) through (13). Consider,

- (5) Accounts Receivable...300
Cash-operation... 300

This “plug” to the accounts receivable account adjusts sales revenue to cash collected from customers. Since receivables increased it means this amount of revenue was not yet collected in cash from customers. In this simple case (no financing or investing transactions affecting receivables), the “balance sheet comparison” approach to constructing the indirect method statement works. Entries (6) through (10) and (12) and (13) similarly adjust all other revenue and expense items to their cash flow. Entry (7), while similar, is slightly different as it adjusts for an operational cash flow that occurred during the current period but yet does not have an associated expense or revenue in the current income statement.

An Aside: Estimating Cash Flow from Operations with Net Income

Students oftentimes do not “get” what inserting net income into the cash-operations section of the worksheet really means. We have found the following to be helpful: What we are doing in Step 1 when we enter net income into the worksheet as cash flow from operations is really entering all of the individual components of net income into the statement.

		Cash						Cash			
	BB	310.0						BB	310.0		
			Operations							Operations	
1	Net Inc	491				1	Sales	2500			
									983.0	CGS	1
									863.0	Salaries	1
									10.0	Depreciation	1
									150.0	Rent	1
									3.0	Interest	1
	CFO	491.0						491.0			

EQUIVALENT

Now, when we make the adjustment for the increase in accounts receivable we are essentially reducing the \$2,500 of sales revenue to \$2,200 in cash collected from customers. The logic is similar for

		Cash			
	BB	310.0			
			Operations		
1	Sales	2500.0	300.0	A/R Incr	2
			983.0	CGS	1
			863.0	Salaries	1
			10.0	Depreciation	1
			150.0	Rent	1
			3.0	Interest	1
	CFO	191.0	0.0		

all other adjustments to revenues and expenses.

At this point the change in every account in the worksheet in Exhibit 7 has been explained and we are now ready to prepare the indirect method cash flow worksheet which is shown in Exhibit 9. This example is typical of the complexity of an indirect method cash flow exercise that is used by many teachers to introduce this topic. As you can see from the color coded worksheet or t-accounts the working capital accounts have all blue entries in them and in this case the simple “balance sheet comparison” approach works perfectly well. In our minds this is part of the problem—we start with a very simple example where the “balance sheet comparison” approach is absolutely correct and then we wave our hands a bit and move on to the

Exhibit 9	
FIOCF, Inc.	
Indirect Method Cash Flow Statement	
Month ended September 30, 1918	
(in thousands)	
Cash Flow From Operations:	
Net Income	\$ 491.0
Adjustments to reconcile NI with CFO	
Depreciation Expense	10
Changes in:	
Accounts Receivable	(300.0)
Inventory	83.0
Prepaid Rent	(300.0)
Accounts Payable	40.0
Unearned Revenue	69.0
Interest Payable	3.0
Salaries Payable	63.0
Cash Flow From Operations	\$ 159.0
Cash Flow for Investing:	
Purchase Property & Equipment	\$ (200.0)
Cash Flow from Financing:	
Issued Common Stock	225.0
Paid Dividends	(5.0)
Cash Flow from Financing	\$ 220.0
Cash at [Begin Date]	\$ 310.0
Cash Flow from Operations	159.0
Cash Flow for Investing	(200.0)
Cash Flow from Financing	220.0
Cash at [End Date]	\$ 489.0

next accounting topic in the course. But the real world is more complex, so let’s move on to a more interesting and realistic set of transactions. And we have to move on to a more realistic problem because otherwise the students will leave thinking yes, the balance sheet approach is always the way to go.

Series of Examples: Basic Transaction Set 2

Transaction set 2⁵ in Exhibit 10 includes all of the transactions found in the first set of simple transactions, Transaction set 1. In addition it includes noncash investing and financing transactions some of which involve cash and some do not, and some of which have gains or losses in them.

The journal entries for this set of transactions is presented in Exhibit 11. The journal entries for the original transaction set 1 transactions are not included in Exhibit 11 unless they change as a result of the new information in transaction set 2. For example, the closing entries (c3) and (c7) change because salary expense changes and so does net income.

Notice in Exhibit 11 that two of the new transactions involve investing uses of

⁵ As with transaction set 1 we try to keep the transactions straightforward and clear so as not to distract them from the cash flow statement construction. You might actually give students the journal entries in Exhibit 11. All they have to do is label the transactions correctly.

cash (labeled in the first column). Two other transactions are noncash investing and financing transactions and are labeled in the last column.

Exhibit 10

Transaction Set 2

In addition to a through o in Transaction Set 1, suppose the following *additional* transactions and events incurred in September 2018:

- p. On September 15, 2018, declared a dividend to shareholders as of the close of business on September 20, 2018 of \$0.10 per share payable on October 15, 2018.
- q. On September 30, 2018, paid \$200 thousand in cash for Buffos Company. Buffos Company had only three identifiable assets, Accounts Receivable with a fair market value on September 30 of \$55 thousand and Inventory with a fair market value on September 30 of \$45 thousand and Property & Equipment with a fair market value of \$100 thousand.
- r. Traded nine thousand shares of its common stock for a building valued at \$405 thousand on September 30, 2018.
- s. On September 30, 2018, sold an X-ray device (Property & Equipment) with a cost of \$43 thousand and accumulated depreciation of \$15 thousand (as of September 30) for \$31 thousand cash.
- t. On September 30, provided additional compensation to employees by granting them 1 thousand shares of FIOCF Inc. common stock. The fair market value of the stock on the date of the grant was \$45 thousand.
- u. Was notified that a customer owing \$3 thousand that was due in 30 days had declared bankruptcy and the court had nullified the debt. This was the first bad debt in the history of FIOCF. Further, there is no reason to expect any of FIOCF's other customers to fail to pay the entire amounts owed.

Exhibit 11					
(p)		Retained Earnings		19	
			Dividends Payable		19
					FIN
(q)		Accounts receivable		55	
		Inventory		45	
		Property & Equipment		100	
	INV		Cash		200
(r)		Property & Equipment		405	
			Common Stock		405
					INV/FIN
(s)	INV	Cash		31	
		Accumulated Depreciation		15	
			Property & Equipment		43
			Gain on Sale		3
(t)		Salaries expense		45	
			Common Stock		45
(u)		Bad Debt Expense		3	
			Accounts Receivable		3
(c8)		Gain on Sale		3	
			Income Summary		3
(c3)		Income Summary		908	
			Salary Expense		908
(c7)		Income Summary		446	
			Retained Earnings		446

The t-accounts are shown in Exhibit 12, the income statement in Exhibit 13, and the ending balance sheet in Exhibit 14. Notice that the accounts receivable and inventory accounts are no longer entirely blue—they have been “invaded” by investing transactions.

Exhibit 13	
FIOCF, Inc.	
Income Statement	
Month ended September 30, 1918	
(in thousands)	
Sales	\$2,500.0
Cost of Goods Sold	983.0
Gross Margin	1,517.00
Salaries	(908.00)
Depreciation	(10.00)
Rent	(150.00)
Bad debt Expense	(3.00)
Interest Expense	(3.00)
Gain on Sale	3.00
Net Income	\$ 446.0

Exhibit 16	
FIOCF, Inc.	
Direct Method Cash Flow Statement	
Month ended September 30, 1918	
(in thousands)	
Cash Flow From Operations:	
Receipts from Customers	\$2,269.0
Payments for Wages, Salaries, etc	(800.0)
Payments to Suppliers	(860.0)
Payments for Rent	(450.0)
Cash Flow From Operations	\$ 159.0
Cash Flow for Investing:	
Sell Equipment	31.0
Buy Buffos	(200.0)
Purchase Property & Equipment	(200.0)
Cash Flow from Investing	\$ (369.0)
Cash Flow from Financing:	
Pay Dividend	(5.0)
Sell Common Stock	225.0
Cash Flow from Financing	\$ 220.0
Cash at [Begin Date]	\$ 310.0
Change in Cash	10.0
Cash at [End Date]	\$ 320.0

The direct method cash flow statement is presented in Exhibit 16. It is interesting to note that while the balance sheet approach to the indirect method works perfectly well for transaction set 1 it doesn't perform well for transaction set 2. Even for transaction set 1, students must be careful to adjust for changes in the correct balance sheet accounts. Many students would not make a correction for the noncurrent interest payable and some may forget to include the unearned revenue account change. Even if you did make adjustments for all of the relevant accounts we see, in transaction set 2, the estimate for the change in cash from operations would be 17 instead of the actual number of 159. (The 142 difference is from 52 in AR + 45 in INV + 45 difference in net income).

	EXAMPLE 1	EXAMPLE 2
TRUE CFO	159	159
Net Income	491	446
AR inc.	-300	-352
Inventory decr	83	38
Prep. Rent Inc	-300	-300
AP inc	40	40
Sal Pay. Inc	63	63
Int pay inc	2	2
Un Rev inc	69	69
	148	6
Depreciation	10	10
Int Pay. Noncur	1	1
ESTIMATE	159	17

Let us go through the worksheet in Exhibit 15 to generate the correct number. Again, let's go through the 5 steps to complete the worksheet.

STEP 1: Enter net income into the worksheet as an estimate of cash flow from operations.

(1) Cash –operations..... 446
 Retained Earnings... 446

STEP 2: Enter cash flows from investing and financing which we have already computed when we constructed the direct method cash flow statement.

Exhibit 14									
FIOCF, Inc.									
Balance Sheets									
as of September 30, 2018									
(in thousands)									
Assets				Liabilities and Equities					
	9/30/2018		8/31/2018			9/30/2018		8/31/2018	
Cash and cash equivalents		\$320.0		\$310.0	Accounts Payable		\$115.0		\$75.0
Accounts Receivable		539.0		187.0	Salaries Payable		113.0		50.0
					Interest payable		2.0		-
Inventories		307.0		345.0	Dividends Payable		19.0		5.0
Prepaid Rent		300.0			Unearned Revenue		69.0		
Total Current Assets:		\$1,466.0		\$842.0	Note Payable		200.0		200.0
					Total Current Liabilities:		\$518.0		\$330.0
Property, Plant & Equipment	\$1,262.0		\$600.0		Interest Payable	\$	1.0		
Accumulated Depreciation	115.0		120.0		Bond Payable		100.0		\$100.0
Equipment, net		\$1,147.0		\$ 480.0	Total LongTerm Liabilities		\$101.0		\$100.0
Total Non-current Assets:		\$1,147.0		\$480.0	Common Stock, \$1 par		\$1,025.0		\$350.0
					(200,00 and 100,000 shares				
					outstanding on 9/30/18 and				
					8/31/18 respetively)				
Total Assets		\$2,613.0		\$1,322.0	Retained Earnings		\$969.0		\$542.0
					Shareholders' Equity:		\$1,994.0		\$892.0
					Total Liabilities &				
					Shareholders' Equity		\$2,613.0		\$1,322.0

These are items labeled (2) through (6). (2) through (4) are identical to the entries made in Transaction set 1.

(5) Accounts receivable.....	55	
Inventories.....	45	
Property & Equipment..	100	
Cash.....	200	
(6) Accum. Depreciation.....	15	
Cash-Investing.....	31	
Gain on sale.....	3	← Cash--operations
Property & Equipment.	43	

When entry (6) is entered into the worksheet the gain on sale is debited to cash—operations because the gain increased net income and was not a cash flow (it is a difference between a cash inflow and an asset value outflow).

STEP 3: Enter all noncash investing and financing transactions. These should have been labeled in the CFS Indirect Column.

There are two such transactions, the dividend declaration and the acquisition of Property and Equipment for common stock.

(7) Retained earnings.....	19
Dividends Payable.....	19

(8) Property and Equipment..	405
Common Stock.....	405

STEP 4: Enter all reclassifications labeled as such in the CFS Indirect Column. None in transaction set 2.

STEP 5: “Plug” all t-account balances in the work sheet to make them balance. The off-setting debit or credit goes to the operating section in the cash-operations section of the worksheet as all investing and financing transactions have been accounted for.

Look at (9), the payment of salary by issuing stock. This is really a joint operating and financing transaction and we might have put a label on it in Step 4. Since it is partially an operational transaction it will get properly accounted in step 5 as it is an adjustment to net income (added back to net income as the stock was not cash).

(9) Cash—operations....	45
Common Stock..	45

Exhibit 17	
FIOCF, Inc.	
Indirect Method Cash Flow Statement	
Month ended September 30, 1918	
(in thousands)	
Cash Flow From Operations:	
Net Income	\$ 446.0
Adjustments to reconcile NI with CFO	
Depreciation Expense	10
Changes in:	
Accounts Receivable	(297.0)
Inventory	83.0
Prepaid Rent	(300.0)
Accounts Payable	40.0
Unearned Revenue	69.0
Interest Payable	3.0
Salaries paid with stock	45.0
Salaries Payable	63.0
Gain on Sale of Equipment	(3.0)
Cash Flow From Operations	\$ 159.0
Cash Flow for Investing:	
Purchase Property & Equipment	\$ (200.0)
Purchase Buffos	(200.0)
Sell Equipment	31.0
	\$ (369.0)
Cash Flow from Financing:	
Issued Common Stock	225.0
Paid Dividends	(5.0)
Cash Flow from Financing	\$ 220.0
Cash at [Begin Date]	\$ 310.0
Cash Flow from Operations	159.0
Cash Flow for Investing	(369.0)
Cash Flow from Financing	220.0
Cash at [End Date]	\$ 320.0

Entries (10) through (18), because all of the investing and financing transactions have now been accounted for, relate solely to operations and will appear as adjustments to net income in order to arrive at cash flow from operations.

An Aside: Step 5 is the “Balance Sheet Approach”

By now you should realize that Step 5 of our procedure is just the “Balance Sheet Approach” to constructing the indirect method cash flow statement. The difference is that we are applying this compare the balance sheets approach to an adjusted balance sheet—all changes in any balance sheet number relating to investing, financing and reclassifications have been accounted for and the only unexplained changes relate to operations.

The indirect method cash flow statement prepared from the worksheet is shown in Exhibit 17. We will now move on to one last, more complicated, transaction set.

Exhibit 12

CURRENT ASSETS											
Cash			Accounts Receivable - Current			Inventory			Prepaid Rent		
BB	310.0		BB	187.0		BB	345.0		BB	0.0	
(a)	225.0	800.0	(d)	2500.0	2200.0	(f)	900.0	983.0	(o)	300.0	
(f)	2200.0	450.0	(g)	55.0	3.0	(u)	45.0				
(m)	69.0	860.0	(i)								
(s)	31.0	5.0	(j)	539.0			307.0			300.0	
		200.0	(n)								
		200.0	(q)								
	320.0										
LONG TERM ASSETS											
Property & Equipment			Contra Assets			Accumulated Depreciation					
BB	600.0					BB	120.0				
(n)	200.0					(h)	10.0				
(q)	100.0		(s)	15.0							
(r)	405.0										
		43.0	(s)								
							115.0				
	1262.0										
CURRENT LIABILITIES											
Accounts Payable			Salaries Payable			Interest Payable					
	75.0	BB		50.0	BB		0.0	BB			
(i)	860.0	900.0	(b)	800.0	863.0	(c)	2.0	(k)			
		115.0			113.0			2.0			
90-day Note Payable			Dividends Payable			Unearned Revenue					
	200.0	BB		5.0	BB		0.0	BB			
			(j)	5.0	19.0	(p)	69.0	(m)			
	200.0				19.0			69.0			
NONCURRENT LIABILITIES											
Bonds Payable			Interest Payable								
	100.0	BB		0.0	BB						
				1.0	(l)						
	100.0				1.0						
EQUITIES											
Common Stock						Retained Earnings					
	350.0	BB				BB	0.0	542.0	BB	BB	
	225.0	(a)				(p)	19.0	446.0	(c7)		
	405.0	(r)									
	45.0	(t)									
							0.0	969.0			
	1025.0										
TEMPORARY ACCOUNTS											
Revenues and Gains											
Sales			Gain on Sale								
	2500.0	(e)		3.0	(s)						
(c1)	2500.0		(c8)	3.0							
	0.0				0.0						
Expenses and Losses											
Cost of Goods Sold			Salaries			Rent			Depreciation		
(o)	983.0		(c)	863.0	(g)	150.0		(h)	10.0		
		983.0	(c2)	45.0	908.0	(c3)	150.0	(c6)		10.0	(c5)
	0.0			0.0			0.0			0.0	
Inc. Summary			Interest			Bad Debt Expense					
(c2)	983.0	2500.0	(c1)	2.0	(u)	3.0					
(c3)	908.0	3.0	(c8)	1.0	3.0	(c4)	3.0	(c9)			
(c4)	3.0										
(c5)	10.0			0.0			0.0				
(c6)	150.0										
(c7)	446.0										
(c9)	3.0										

Exhibit 15										
	Beginning Balance		order enter	Ref	Explanations		Ref	order enter	Ending Balance	
	dr	cr			dr	cr			dr	cr
Accounts Receivable	187.0		10	AR Inc	297.0				539.0	
			5	Buy Buffos	55.0					
Inventories	345.0		5	Buy Buffos	45.0	83.0	Inv Dec	11	307.0	
Prepaid Rent	0.0		12	Prep Rent Inc	300.0				300.0	
Property & Equipment	600.0		4	Buy Equip	200.0	43.0	Sell Equip	6	1262.0	
			5	Buy Buffos	100.0					
			8	Equip/Stock	405.0					
Accum. Depr		120.0	6	Sell Equip	15.0	10.0	Deprac Exp	13		115.0
Accounts Pay.		75.0				40.0	APInc	14		115.0
Salaries Payable		50.0				63.0	Sal. Pay Inc	15		113.0
90-day Note Payable		200.0								200.0
Dividends Payable		5.0	3	Pay Divid	5.0	19.0	Div Declar	7		19.0
Unearned Revenue - Current		-				69.0	Un Rev Inc	16		69.0
Interest Payable - Current		0.0				2.0	IPcur inc	17		2.0
Interest Payable - NonCurrent		0.0				1.0	IPnonc inc	18		1.0
Bonds Payable		100.0								100.0
Common Stock		350.0				225.0	Sell Stock	2		1025.0
						45.0	Sal/Stock	9		
						405.0	Equip/Stock	8		
Ret. Earnings		542.0	7	Div Declar	19.0	446.0	Net Inc	1		969.0
	1132.0	1442.0			Cash				2408.0	2728.0
Beg cash				BB	310.0					
					Operations					
			1	Net Inc	446					
			11	Inv Dec	83.0	297.0	AR Inc	10		
			13	Depr Exp	10.0	300.0	Prep Rent Inc	12		
			14	AP Inc	40.0	3.0	Gain on Sale	6		
			15	Sal Pay Inc	63.0					
			16	Un Rev Inc	69.0					
			17	IPcur inc	2.0					
			18	IPnonc inc	1.0					
			9	Sal/Stock	45.0					
				CFO	159.0	0.0				
					Investing					
			6	Sell Equip	31.0	200.0	Buy Equip	4		
						200.0	Buy Buffos	5		
					0.0	369.0				
					Financing					
			2	Sell Stock	225.0	5.0	Pay Divid	3		
					220.0	0.0				
				EB	320.0					

Series of Examples: Transaction Set 3

Transaction set 3 in Exhibit 18 includes all of the transactions found in the first two transaction sets. New transactions introduced relate to other comprehensive income, a reclassification, impairments, leasing, noncurrent unearned revenue, and a loss on trade.

Exhibit 18

Transaction Set 3

In addition to a through u in Transaction Set 1 and Transaction Set 2, suppose the following additional transactions and events incurred in September 2018:

- v. A zero coupon bond was issued on September 1, 2018, and matures in exactly three years. FIOCF received \$100 thousand for the bond FIOCF has chosen to use the fair value option for this security.
- w. For the month of September 2018, the accrued interest on the zero coupon bond was \$1.6 thousand.
- x. On September 30, 2018, a customer who owed FIOCF \$40 thousand dollars asked for an extension of time, and FIOCF Inc. agreed. The customer signed a Note agreeing to pay \$50.79 thousand on September 30, 2020. (At 12% compounded monthly, the present value of \$50.79 thousand is \$40 thousand, so the agreement produced neither a gain nor a loss for FIOCF.)
- y. On September 30, 2018, traded a robotic welder (Equipment) with a cost of \$32 thousand and accumulated depreciation of \$8 thousand (as of September 30) for a new piece of equipment with a market value of \$16 thousand.
- z. Determined that the value of its Equipment had been impaired, and took an Impairment Loss of \$25 thousand.
- aa. On September 30, signed an agreement leasing equipment for 5 years. Lease payments, made at the end of each year, are \$4,220.76 per year. The implicit interest rate on this transaction is 10% per annum, compounded annually. The present value of the lease payments on September 30 is, therefore, \$16 thousand.
- bb. The terms of the Bonds Payable allow early payment of half of the principal plus accrued interest on September 1, 2019. On September 15, 2018, the Board of Directors of FIOFC Inc. voted to exercise this prepayment option and notified the holders of the bonds that it intends to repay \$50 thousand plus accrued interest on September 1, 2019. Therefore, \$50 thousand of that amount should be reclassified as Current Portion of Long-Term Debt and \$0.5 thousand of the Interest Payable should be classified as Interest Payable – Current.
- cc. In late September, 2018, FIOCF received notice from a bond rating agency that its zero coupon was downgraded. On September 30, 2018 the bond was trading for \$90 thousand and because it used the fair value option for this bond, it was written down to its fair value and the \$10 thousand gain was put into other comprehensive income (OCI).
- dd. Sales are all on account, primarily under terms that call for payment within 30 days. (This is true of the entire \$2,500 thousand in sales under c above.) Occasionally, a customer will ask for extended payment terms. If an extended term is granted, the customer signs a formal Note calling for a lump sum payment 24 months from the date of the sale. The Note carries an interest rate of 12% per annum, compounded monthly. At the close of business on September 30, a sale of \$250 thousand was made to a customer who signed a Note due September 30, 2020. (To be clear, the Note calls for the payment of \$317.43 thousand, therefore \$250 thousand is the present value the amount to be received under the Note.)
- ee. During the month of September, received cash payments of \$40 thousand for services to be performed in October of 2019.
- ff. On September 30, 2018 FIOCF abandoned one of its product lines and liquidated all inventory associated with this line for \$20 thousand. The carrying cost of the inventory was \$25 thousand. FIOCF recognized a loss on inventory liquidation in the amount of \$5 thousand.

The journal entries for this transaction set are presented in Exhibit 19. As before only the entries for new transactions included in this journal.

Exhibit 19					
(v)	FIN	Cash	Bond Payable (zero)	100	100
(w)		Interest Expense	Interest Payable (noncurrent)	1.6	1.6
(x)		Note Receivable	Accounts Receivable	40	40
(y)		Loss on Trade		8	
		Accumulated Depreciation		8	
		Property & Equipment	Property & Equipment	16	32
(z)		Impairment Loss	Property & Equipment	25	25
(aa)		Property & Equipment	Lease Payable	16	16
(bb)		Bonds Payable (noncurrent)	Bonds Payable (current)	50	50
		Interest Payable (noncurrent)	Interest Payable (current)	0.5	0.5
(cc)		Bonds Payable (zero)	Other Comprehensive Income	10	10
(dd)		Note Receivable	Sales Revenue	250	250
(ee)	OPR	Cash	Unearned Revenue (noncurrent)	40	40
(ff)	INV	Cash		20	
		Loss on Inventory Liquidation	Inventory	5	25
(c9)		Income Summary	Bad Debt Expense	3	3
(c10)		Income Summary	Loss on Trade	8	8
(c11)		Income Summary	Impairment Loss	25	25
(c12)		Income Summary	Loss on Inventory Liquidation	5	5
(c1)		Sales Revenue	Income Summary	2,750	2,750
(c4)		Income Summary	Interest Expense	4.6	4.6
(c7)		Income Summary	Retained Earnings	656.4	656.4

There are three new cash transactions labeled in the left hand column of the journal—(v), (ee) and (ff). There are six new transactions which are noncash investing, financing, and restructuring transactions—(x), (y), (aa), (bb), (cc) and (dd).

The t-accounts are shown in Exhibit 20, the income statement in Exhibit 21, and the ending balance sheet in Exhibit 22. The direct method cash flow statement is presented in Exhibit 24. We now know investing, financing and operating cash flows for the new set of assumptions and are set to begin to fill in the indirect method cash flow worksheet which is presented in Exhibit 23.

STEP 1: Enter net income into the worksheet as an estimate of cash flow from operations.

(1)	Cash –operations.....	656.4	
	Retained Earnings...		656.4

STEP 2: Enter cash flows from investing and financing which we have already computed when we constructed the direct method cash flow statement.

These are items labeled (2) through (8). (2) through (6) are identical to the entries made in Transaction set 1.

(7)	Cash-financing.....	100	
	Bond Payable (zero)..		100
(8)	Cash-Investing.....	20	
	Liquidation Loss.....	5	← Cash--operations
	Inventory.....		25

STEP 3: Enter all noncash investing and financing transactions. These are been labeled in the CFS Indirect Column. The new entries to transaction set 3 are:

The work sheet entries are essentially identical to the journal entries. Entry (12) in the worksheet accounts for transaction (x), the exchange of a note receivable for an account receivable. Entry (13) in the worksheet accounts for (y), the equipment trade. The only difference is the Loss on Trade is replaced with Cash-operations as the loss is included in net income and, much like depreciation, it is not a cash flow. Worksheet entry (14) accounts for the lease. Finally, (17) adjusts Cash-operations for the fact that \$250 thousand of sales were made and a long term note was received in lieu of cash.

STEP 4: Enter all reclassifications labeled as such in the CFS Indirect Column. (15) accounts for the reclassification of the bonds and related interest from noncurrent to current and (16) credits other comprehensive income for the change in value of the bond.

Exhibit 20

CURRENT ASSETS											
Cash			Accounts Receivable - Current			Inventory			Prepaid Rent		
BB	310.0		BB	187.0		BB	345.0		BB	0.0	
(a)	225.0	800.0 (d)	(e)	2500.0	2200.0 (f)	(b)	900.0	983.0 (o)	(g)	300.0	
(f)	2200.0	450.0 (g)	(q)	55.0	3.0 (u)	(q)	45.0				
(m)	69.0	860.0 (l)			40.0 (x)		25.0 (r)				
(c)	31.0	5.0 (j)		499.0			282.0			300.0	
(v)	100.0	200.0 (n)									
(ee)	40.0	200.0 (q)									
(ff)	20.0										
	480.0										
NONCURRENT ASSETS						Contra-assets					
Property & Equipment			Note Receivable			Accumulated Depreciation					
BB	600.0		BB	0.0				120.0 BB			
(n)	200.0		(x)	40.0				10.0 (h)			
(q)	100.0		(dd)	250.0		(s)	15.0				
(r)	405.0			290.0		(y)	8.0				
(y)	16.0	43.0 (e)									
(aa)	16.0	32.0 (y)									
		25.0 (z)						107.0			
	1237.0										
CURRENT LIABILITIES											
Accounts Payable			Salaries Payable			Interest Payable			Bond Payable (current)		
	75.0	BB		50.0	BB		0.0	BB		0.0	BB
(l)	860.0	900.0 (b)	(d)	800.0	863.0 (o)		2.0 (k)			50.0 (bb)	
							0.5 (bb)				
	115.0			113.0			2.5			50.0	
90-day Note Payable			Dividends Payable			Unearned Revenue					
	200.0	BB		5.0	BB		0.0	BB			
	200.0		(l)	5.0	19.0 (p)		69.0 (m)				
				19.0			69.0				
NONCURRENT LIABILITIES											
Bonds Payable			Interest Payable			Bonds Payable (zero)			Lease Obligation		
(bb)	50.0	100.0 BB	(bb)	0.5	0.0 BB		10.0	0.0 BB		0.0	BB
					1.0 (l)			100.0 (v)		16.0 (aa)	
					1.6 (w)						
	50.0			2.1			90.0			16.0	
Unearned Revenue (noncurrent)											
	0.0	BB									
	40.0	(ee)									
	40.0										
EQUITIES											
Common Stock						Retained Earnings			AOCI		
	350.0	BB				BB	0.0	542.0 BB	BB	0.0	0.0 BB
	225.0	(a)				(p)	19.0	656.4 (o7)		10.0	(oo)
	405.0	(r)									
	45.0	(t)									
	1025.0						0.0	1179.4		0.0	10.0
TEMPORARY ACCOUNTS											
Revenues and Gains											
Sales			Gain on Sale								
	2500.0	(e)			3.0 (c)						
(c1)	2750.0	250.0 (dd)	(c8)	3.0							
	0.0				0.0						
Expenses and Losses											
Cost of Goods Sold			Salaries			Rent			Depreciation		
(o)	983.0		(o)	863.0		(q)	150.0		(h)	10.0	
		983.0 (o2)	(t)	45.0	908.0 (o3)			150.0 (o8)		10.0	(o6)
	0.0			0.0			0.0			0.0	
Inc. summary			Interest			Bad Debt Expense			Loss on Trade		
(o2)	983.0	2750.0 (o1)	(k)	2.0		(u)	3.0		(y)	8.0	
(o3)	908.0	3.0 (c5)	(l)	1.0	4.5 (o4)			3.0 (o8)		8.0	8.0 (o10)
(o4)	4.6		(w)	1.6							
(o5)	10.0			0.0							
(o8)	150.0										
(o10)	8.0										
(o7)	656.4										
(o8)	3.0		(z)	25.0		(m)	5.0				
(o11)	25.0				25.0 (o11)			5.0 (o12)			
(o12)	5.0										
	0.0			0.0							

Exhibit 21	
FIOCF, Inc.	
Income Statement	
Month ended September 30, 1918	
(in thousands)	
Sales	\$2,750.0
Cost of Goods Sold	983.0
Gross Margin	1,767.00
Salaries	(908.00)
Depreciation	(10.00)
Rent	(150.00)
Bad debt Expense	(3.00)
Interest Expense	(4.60)
Impairment Loss	(25.00)
Loss on Trade	(8.00)
Loss on Inventory Liquidation	(5.00)
Gain on Sale	3.00
Net Income	\$ 656.4

STEP 5: We have finally reached the point where we can safely assume no other non-operating transactions have had an effect on any balance sheet account (we have made adjustments for all of them) and any remaining changes relate to operations. We can now safely “plug” all t-account balances in the work sheet to make them balance (The off-setting debit or credit goes to the operating section in the cash-operations section of the worksheet as all investing and financing transactions have been accounted for.) These are items (18) through (28) in the worksheet.

The indirect method cash flow statement is shown in Exhibit 25.

Exhibit 22					
FIOCF, Inc.					
Balance Sheets					
as of September 30, 2018					
(in thousands)					
Assets			Liabilities and Equities		
	9/30/2018	8/31/2018		9/30/2018	8/31/2018
Cash and cash equivalents	\$480.0	\$310.0	Accounts Payable	\$115.0	\$75.0
Accounts Receivable	499.0	187.0	Salaries Payable	113.0	50.0
Inventories	282.0	345.0	Interest payable	2.5	-
Prepaid Rent	300.0		Dividends Payable	19.0	5.0
Total Current Assets:	\$1,561.0	\$842.0	Bond Payable (current)	50.0	
Property, Plant & Equipment	\$1,237.0	\$600.0	Unearned Revenue	69.0	
Accumulated Depreciation	107.0	120.0	Note Payable	200.0	200.0
Equipment, net	\$1,130.0	\$ 480.0	Total Current Liabilities:	\$568.5	\$330.0
Notes Receivable	290.0		Bond (zero) Payable	90.0	
Total Non-current Assets:	\$1,420.0	\$480.0	Interest Payable	2.1	
Total Assets	\$2,981.0	\$1,322.0	Lease Payable	16	
			Unearned Revenue	40	
			Bond Payable	50.0	\$100.0
			Total Long Term Liabilities:	\$198.1	\$100.0
			Common Stock, \$1 par	\$1,025.0	\$350.0
			Other Comprehensive Income	10.00	
			Retained Earnings	1179.40	542.00
			Shareholders' Equity:	\$2,214.4	\$892.0
			Total Liabilities & Shareholders' Equity	\$2,981.0	\$1,322.0

To reiterate the importance of accounting for all non-operating transactions in the worksheet before “plugging the balances”, we show the estimate of cash flow from operations if you “plug” too early. See exhibit 26 below. We mentioned this at the end of transaction set 2. With the incremental transactions in transaction set 3 the estimate is even further off than before. The other important item of note is that the approach taken in this note forces students to focus on the nature of transactions. How many students might miss the noncurrent unearned revenue

Exhibit 23										
	Beginning Balance		order enter	Ref	Explanations		Ref	order enter	Ending Balance	
	dr	cr			dr	cr			dr	cr
Accounts Receivable	187.0		18	AR Inc	297.0	40.0	AR to Note	12	499.0	
			5	Buy Buffos	55.0					
Inventories	345.0		5	Buy Buffos	45.0	83.0	Inv Dec	19	282.0	
						25.0	Inv Liquid	8		
Prepaid Rent	0.0		20	Prep Rent Inc	300.0				300.0	
Notes Receivable	0.0		12	AR to Note	40.0				290.0	
			17	Sales Note	250.0					
Property & Equipment	600.0		4	Buy equip	200.0	43.0	Sell Equip	6	1237.0	
			5	Buy Buffos	100.0	32.0	Trade	13		
			10	Equip/Stock	405.0	25.0	Impairment	21		
			14	Lease	16.0					
			13	Trade	16.0					
Accum. Depr		120.0	6	Sell Equip	15.0	10.0	Deprec Exp	22		107.0
			13	Trade	8.0					
Accounts Pay.		75.0				40.0	AP Inc	23		115.0
Salaries Payable		50.0				63.0	Sal. Pay Inc	24		113.0
90-day Note Payable		200.0								200.0
Dividends Payable		5.0	3	Pay div	5.0	19.0	Div Declar	9		19.0
Current Port Bonds Payable		0.00				50.0	Reclass	15		50.0
Unearned Revenue - Current		-				69.0	Un Rev cur	25		69.0
Interest Payable - Current		0.0				2.0	I cur Inc	26		2.5
						0.5	Reclass	15		
Interest Payable - NonCurrent		0.0	15	Reclass	0.5	2.6	I nonc Inc	27		2.1
Unearned Revenue - Noncurrent		40.00				40.0	Un Rev noncu	28		
Lease Payable		0.0				16.0	Lease	14		16.0
Bonds Payable		100.0	15	Reclass	50.0					50.0
Bond Payable (zero)		0.0	16	Reclass	10.0	100.0	Issue zero	7		50.0
Common Stock		350.0				225.0	Sell stock	2		1025.0
						405.0	Equip/Stock	10		
						45.0	Sal/Stock	11		
AOCI		0.0				10.0	Reclass	16		
Ret. Earnings		542.0	9	Div Declar	19.0	656.4	Net Inc	1		1179.4
Beg cash	1132.0	1482.0							2608.0	2998.0
				BB	310.0					
					Operations					
			1	Net Inc	656.4					
			19	Inv Dec	83.0	297.0	AR Inc	18		
			22	Depr Exp	10.0	300.0	Prep Rent Inc	20		
			23	AP Inc	40.0	3.0	Gain on Sale	6		
			24	Sal Pay Inc	63.0	250.0	Sales note	17		
			25	Un Rev cur	69.0					
			28	Un Rev non cur	40.0					
			21	Impairment	25.0					
			13	Loss on trade	8.0					
			26	I cur Inc	2.0					
			8	Loss Liquid	5.0					
			27	I nonc Inc	2.6					
			11	Sal/Stock	45.0					
					199.0	0.0				
					Investing					
			6	Sell Equip	31.0	200.0	Buy Equip	4		
			8	Inv Liquid.	20.0	200.0	Buy Buffos	5		
					0.0	349.0				
					Financing					
			2	Sell stock	225.0	5.0	Pay div	3		
			7	Issued to	100.0					
					320.0	0.0				
				BB	480.0					

Exhibit 24	
FIOCF, Inc.	
Direct Method Cash Flow Statement	
Month ended September 30, 1918	
(in thousands)	
Cash Flow From Operations:	
Receipts from Customers	\$2,309.0
Payments for Wages, Salaries, etc	(800.0)
Payments to Suppliers	(860.0)
Payments for Rent	(450.0)
Cash Flow From Operations	\$ 199.0
Cash Flow for Investing:	
Inventory Liquidation	\$ 20.00
Sell Equipment	31.0
Buy Buffos	(200.0)
Purchase Property & Equipment	(200.0)
Cash Flow from Investing	\$ (349.0)
Cash Flow from Financing:	
Sell Zero Bond	\$ 100.0
Pay Dividend	(5.0)
Sell Common Stock	225.0
Cash Flow from Financing	\$ 320.0
Cash at 8/31/2018	\$ 310.0
Change in Cash	170.0
Cash at 9/30/2018	\$ 480.0

in
the

Exhibit 25	
FIOCF, Inc.	
Indirect Method Cash Flow Statement	
Month ended September 30, 1918	
(in thousands)	
Cash Flow From Operations:	
Net Income	\$ 656.4
Adjustments to reconcile NI with CFO	
Depreciation Expense	10
Asset Impairment	25
Inventory liquidation loss	5
Changes in:	
Accounts Receivable	(297.0)
Inventory	83.0
Prepaid Rent	(300.0)
Accounts Payable	40.0
Unearned Revenue	109.0
Interest Payable	4.6
Salaries paid with stock	45.0
Salaries Payable	63.0
Gain on Sale of Equipment	(3.0)
Loss on Trade	8.0
Sales for Note Receivable	(250.0)
Cash Flow From Operations	\$ 199.0
Cash Flow for Investing:	
Inventory Liquidation	\$ 20.00
Sell Equipment	31.0
Buy Buffos	(200.0)
Purchase Property & Equipment	(200.0)
Cash Flow from Investing	\$ (349.0)
Cash Flow from Financing:	
Sell Zero Bond	\$ 100.0
Pay Dividend	(5.0)
Sell Common Stock	225.0
Cash Flow from Financing	\$ 320.0
Cash on August 31, 2018	\$ 310.0
Cash Flow from Operations	199.0
Cash Flow for Investing	(349.0)
Cash Flow from Financing	320.0
Cash on September 30, 2018	\$ 480.0

Exhibit 26						
EXAMPLE 1		EXAMPLE 2		EXAMPLE 3		
TRUE CFO	159	TRUE CFO	159	TRUE CFO	199	
Net Income	491	Net Income	446	Net Income	656.4	
AR Inc.	-300	AR Inc.	-352	AR Inc.	-312	
Inventory decr	83	Inventory decr	38	Inventory decr	63	
Prep. Rent Inc	-300	Prep. Rent Inc	-300	Prep. Rent Inc	-300	
AP Inc	40	AP Inc	40	AP Inc	40	
Sal Pay. Inc	63	Sal Pay. Inc	63	Sal Pay. Inc	63	
Int pay Inc	2	Int pay Inc	2	Int pay Inc	2.5	
Un Rev Inc	69	Un Rev Inc	69	Un Rev Inc	69	
	148		6		281.9	
Depreciation	10	Depreciation	10	Depreciation	10	
Int Pay. Noncur	1	Int Pay. Noncur	1	Int Pay. Noncur	2.1	
				Impairment	25	
ESTIMATE	159	ESTIMATE	17	Trade Loss	8	
				Inventory Liquidation	5	
				Gain on sale	-3	
				Unearn Rev	40	
				Note Rec	-290	
				ESTIMATE	75	

adjustment or the long term note receivable as part of the adjustment process in the indirect method? There are a few other issues we would like to flag.

Content of the Cash Flow Statement

The cash flow statement, particularly the indirect method statement, can be an integral part of the disclosure requirements in the annual report. We all know that cash paid for interest and taxes must be disclosed in the statements and for many firms this requirement is met by including two lines at the bottom of the cash flow statement. The lease in our examples might be disclosed in a single line at the bottom of the statement as well, something like assets acquired with owner financing. In general, required disclosures of material amounts and events can be disclosed in many ways.

As an example, in transaction set 2 we introduced a default on a receivable. The journal entry was (u):

Bad Debt expense..... 3
 Accounts receivable... 3.

When we filled out the worksheet and created the indirect method statement the “plug” for the operational change to accounts receivable was 297. We had properly labeled the Buffos transaction as adding 55 to accounts receivable but we did not label the 3 write-off. So the plug in our cash flow statement was 297. This is fine as long as we considered the 3 to be immaterial. If we had labeled the write-

Accounts Receivable - Current		
BB	187.0	
(e)	2500.0	2200.0 (f)
(q)	55.0	3.0 (u)
	539.0	

Exhibit 15										
	Beginning Balance		order enter	Ref	Explanations		Ref	order enter	Ending Balance	
	dr	cr			dr	cr			dr	cr
Accounts Receivable	187.0		10	AR Inc	297.0				539.0	
			5	Buy Buffos	55.0					

off as a material transaction, say MAT⁶, then the cash flow statement would have had a subtraction of 300 for accounts receivable and an addback of 3 for the write-off. The net result would be the same.

While we did not introduce allowance accounting in the examples, this still does introduce the concept of flexibility of format and content in the indirect method statement. For example with allowance accounting a company can chose to disclose just the change in accounts receivable net of the allowance for bad debts in the indirect method statement or it can chose to disclose the change in gross accounts receivable along with the change in the allowance account, or even some other option.

The property and equipment trades in our examples, if deemed material, would probably be more easily disclosed in some prose in the fixed asset footnote. Although it might be

⁶ In essence, we could add another Step to our process that would require us to enter this transaction separately into the worksheet before we “plug” then it would have been disclosed.

disclosed as a one-liner like the lease. Something like book value of asset acquired through asset trade in the amount of 16. We would know there is a loss on trade of 8 from the addback of the loss to net income in the indirect method statement.

The main point of this is that the actual format and content of the indirect method statement varies, but that it can be used intelligently to efficiently meet other general disclosure requirements.