Cash Flow Construction

Indirect Method Statement of Cash Flows

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Partitioning Cash Flows

Cash flow activity can be partitioned in many ways. Consider, the following example.

Star Therapeutics, Inc.

The income statement. . .

Year-ended March 31,	2018	2017
Amounts in (000's)		
Net Sales	$ 20,359	$ 14,518
Cost of sales	8,480	6,916
Gross profit	11,879	7,602
Costs and expenses:		
Selling, general and administrative expense	4,791	3,777
Research and development	113	70
Total costs and expenses	4,904	3,847
Operating income	6,975	3,755
Interest income	97	50
Earnings before income taxes	7,072	3,805
Income taxes	2,762	1,199
Net earnings	$ 4,310	$ 2,606

Star Therapeutics, Inc. (cont'd)

The balance sheet. . .

	2018	2017
Assets		
Current Assets:		
Cash	$ 1,809	$ 1,219
Marketable securities	1,029	416
Accounts receivable, net	2,872	2,126
Inventories	4,011	1,845
Income taxes refundable	-	84
Prepaid expenses	145	125
Deferred income taxes	356	154
Total current assets	10,222	5,969
Property and equipment, net	500	346
Other assets, net	56	56
	$ 10,778	$ 6,371
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 399	$ 514
Accrued expenses	424	283
Income taxes payable	180	-
Total current liabilities	1,003	797
Shareholders' equity:		
Common stock	6,791	6,832
Retained earnings (deficit)	3,052	(1,258)
Treasury stock	(68)	-
Total shareholders' equity	9,775	5,574
	$ 10,778	$ 6,371

The One-Minute Cash Flow Statement. . .

Star Therapeutics, Inc.
Cash Flow Statement
Year Ended March 31, 2018

Beginning Cash	$ 1,219
Net Cash Flow	590
Ending Cash	$ 1,809

The one-minute cash flow is nothing more than a reporting of the net change in cash.

- Lacks detail
- Why the change in cash?

The Ten-Minute Cash Flow (balance sheet changes):

Star Therapeutics, Inc.
Cash Flow Statement
Year Ended March 31, 2018

Sources of cash:		
Decreases in assets:		
Dec. in income taxes refundable	$ 84	
Increases in liabilities and shareholders' equity:		
Inc. in accrued expenses	141	
Inc. in income taxes payable	180	
Inc. in retained earnings	4,310	
Total sources of cash		$ 4,715
Uses of cash:		
Increases in assets:		
Inc. in marketable securities	$ (613)	
Inc. in accounts receivable, net	(746)	
Inc. in inventories	(2,166)	
Inc. in prepaid expenses	(20)	
Inc. in deferred income taxes	(202)	
Inc. in property and equipment, net	(154)	
Decreases in liabilities and shareholders' equity:		
Dec. in accounts payable	(115)	
Dec. in paid in capital, net	(109)	
Total uses of cash		(4,125)
Change in cash		$ 590

Balance sheet changes

- Provides detail
- Still, questions arise.
  - Are cash flows sustainable?
  - What portion of cash flow is from operations versus other sources?

The "???"-Minute Cash Flow (indirect method):

Star Therapeutics, Inc.
Cash Flow Statement
Year Ended March 31, 2018

Cash Provided by Operations:		
Net income		$ 4,310
Depreciation expense	$ 114	
Inc. in accounts receivable, net	(746)	
Inc. in inventories	(2,166)	
Dec. in income taxes refundable	84	
Inc. in prepaid expenses	(20)	
Inc. in deferred income taxes	(202)	
Dec. in accounts payable	(115)	
Inc. in accrued expenses	141	
Inc. in income taxes payable	180	(2,730)
Cash Provided by Operations		1,580
Investing Expenditures:		
Inc. in marketable securities	(613)	
Inc. in property and equipment, net (adjusted for depreciation expense)	(268)	
Cash (Used) by Investments		(881)
Financing Expenditures:		
Dec. in paid-in-capital, net		(109)
Change in cash		$ 590

The "??? + ?"-Minute Cash Flow (direct method):

Star Therapeutics, Inc.
Cash Flow Statement
Year Ended March 31, 2018

Cash Provided by Operations:		
Cash from sales		$ 19,613
Cash production costs		(10,647)
Cash operating expenses		(4,783)
Other cash income		97
Income taxes paid		(2,700)
Cash Provided by Operations		1,580
Investing Expenditures:		
Inc. in marketable securities	(613)	
Inc. in property and equipment, net (adjusted for depreciation expense)	(268)	
Cash (Used) by Investments		(881)
Financing Expenditures:		
Dec. in paid-in-capital, net		(109)
Change in cash		$ 590

Indirect and Direct Methods:

- Detailed partitioning
- Helps answer the question, why the change in cash?
- Helps answer the question, are cash flows sustainable?
  - Operating cash flows separated
  - Other cash flows: investing and financing are separated

Cash Flow Statement
Storefront Furniture, Inc.

Year-ended Amounts in (000's)	2018	2017
Cash flows from operating activities:		
Cash received from customers	$ 122,918	$ 109,369
Cash paid to suppliers and employees	(113,063)	(104,533)
Income taxes paid, net of refunds	(1,911)	(3,876)
Interest paid	(388)	(208)
Interest received	232	188
Other receipts, net	800	1,239
Net cash provided by operating activities	8,588	2,179
Cash flows from investing activities:		
Proceeds from sale of property and equipment	6,594	2
Capital expenditures	(10,686)	(4,961)
Sale (acquisitions) of marketable securities	137	191
Net cash used in investing activities	(3,955)	(4,768)
Cash flows from financing activities:		
Net borrowings (payments) under line of credit	(601)	2,736
Proceeds from issuance of long-term debt	200	200
Payments to reduce long-term debt	(455)	(2,363)
Proceeds from issuance of common stock	122	3,578
Dividends paid	(1,090)	(798)
Purchase of treasury stock	(2,957)	(2,096)
Net cash provided by (used in) financing activities	(4,781)	1,257
Net increase (decrease) in cash and cash equivalents	(148)	(1,332)
Cash at beginning of year	471	1,803
Cash at end of year	$ 323	$ 471

Storefront Furniture, Inc. (cont'd)

From the cash flow statement . . .

Year-ended Amounts in (000's)	2018	2017
Net earnings	$ 7,207	$ 6,782
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	2,175	1,888
Provision for deferred compensation	634	554
Payments made for deferred compensation	(449)	(1,730)
Deferred income taxes	2,150	404
Provision for losses on accounts receivable	179	68
Loss (gain) on disposition of assets	(5,253)	(2)
Loss (gain) on sale of marketable securities	-	(18)
Change in operating assets and liabilities:		
Decrease (increase) in accounts receivable	(2,021)	(1,832)
Decrease (increase) in inventories	(1,127)	(2,008)
Decrease (increase) in prepaid expenses	(293)	(78)
Decrease (increase) in cash value of life insurance	(140)	(120)
Decrease (increase) in other assets	320	135
Increase (decrease) in accounts payable	4,080	(1,633)
Increase (decrease) in accrued expenses	1,126	(231)
Total adjustments	1,381	(4,603)
Net cash provided by operating activities	$ 8,588	$ 2,179

Indirect and direct methods:

The two methods differ only in the manner in which cash flows from operations are presented

- Net cash flows from operating activities are equal under both methods

- The manner of presentation and the total of net cash flows from investing and financing activities are the same under both methods

The FASB recommends use of the direct method

- Gross operating cash activity is presented
- The operating section is effectively, a cash-basis income statement

- Provides more information to investors and creditors than the indirect method
  - Actual cash inflows and outflows, not "net" amounts

FASB recommendations notwithstanding, most companies use the indirect method

- Direct method statement requires providing also an indirect method statement - the reconciliation of net income to cash from operations

- Some companies indicate that their accounting systems are not set up to capture gross cash flow activity

A Closer Look at Cash Flow Classification

Cash provided (used) by operating activities (Operating cash flow):

The cash effects of transactions that enter into the determination of net income such as cash receipts from sales of goods and services and cash payments to suppliers and employees for acquisitions of inventory and services. Excluded are gains and losses related to investing activities, such as sales of investments or fixed assets, or related to financing activities, such as early debt retirement.

Cash provided (used) by investing activities (Investing cash flow):

Cash receipts and payments involving long-term assets, including making and collecting loans and acquiring and disposing of investments and property, plant and equipment.

Cash provided (used) by financing activities (Financing cash flow):

Cash receipts and payments involving liability and stockholders' equity items, including obtaining cash from creditors and repaying amounts borrowed and obtaining capital from owners and providing them with a return on and a return of, their investments.

Cash Flow Classification Exercise #1

Required: Indicate whether the following items should be classified as:

O – Operating,

I - Investing, or

F - Financing

_____ 1. Proceeds from sales of products

_____ 2. Purchases of inventory

_____ 3. Cash paid for operating expenses

_____ 4. Interest income received

_____ 5. Dividend income received

_____ 6. Interest expense paid

_____ 7. Dividends paid

_____ 8. Income taxes paid

_____ 9. Cash disbursed for purchase of investment

_____ 10. Proceeds from sale of equipment

_____ 11. Loss on sale of equipment

_____ 12. Proceeds from issuing debt

_____ 13. Cash paid to repurchase common stock

Cash Flow Classification Exercise #2

Required: Indicate whether the following items should be classified as:

O – Operating,
I - Investing, or
F - Financing

_____ 1. Increases in book overdrafts, the excess of outstanding checks over cash balances reported by the bank.

_____ 2. Cash used in the operations of a discontinued segment during the period leading up to disposition.

_____ 3. Proceeds from the liquidation of investments in short-term debt instruments classified as trading securities.

_____ 4. Proceeds from a sale of accounts receivable.

_____ 5. Cash provided by an outsized increase in the time taken to satisfy accounts payable.

_____ 6. Cash paid for interest capitalized to a building under construction.

_____ 7. Tax benefits received as the result of the sale of an investment at a loss.

_____ 8. Cash tied up in notes receivable taken from customers at the time of sale.

_____ 9. Tax benefits from the exercise of unqualified stock options.

_____ 10. Cash provided from the liquidation of inventory acquired in a corporate acquisition.

_____ 11. Taxes paid on a gain realized when long-term debt was settled early.

_____ 12. Proceeds received when accounts receivable were pledged as collateral for a loan.

Cash Flow Classification Exercise #2 (cont'd)

_____ 13. Cash paid to retire long-term debt early.

_____ 14. Cash paid in litigation related to product liability claims.

_____ 15. Cash received from the sale of a building to be leased back.

_____ 16. Insurance proceeds resulting from damage sustained by property, plant and equipment.

_____ 17. Cash received from litigation related to product liability.

Calculating Cash Provided by Operating Activities
Barton Industries, Inc.

The income statement . . .

Year-ended March 31, Amounts in (000's)	2018	2017
Net Sales	$ 220,014	$ 213,216
Cost of sales	154,294	150,334
Gross profit	65,720	62,882
Selling, general and administrative	47,054	41,135
Operating income	18,666	21,747
Other income (expense):		
Interest	(1,922)	(1,905)
Gain on sale of equipment	4,000	--
Earnings before income taxes	20,744	19,842
Income taxes	8,194	7,838
Net earnings	$ 12,550	$ 12,004

Depreciation expense in the amount of $6,010 is included in cost of sales.

Barton Industries, Inc. (cont'd)

The balance sheet. . .

	2018	2017	Inc (Dec)
Assets			
Current Assets:			
Cash	$ 2,929	$ 4,151	(1,222)
Accounts receivable, net	22,321	27,967	(5,646)
Inventories	21,582	28,865	(7,283)
Prepaid expenses	3,697	3,729	(32)
Total current assets	50,529	64,712	
Property and equipment, net	49,616	34,417	15,199
Other assets	2,461	1,829	632
	$ 102,606	$ 100,958	1,648
Liabilities and Shareholders' Equity			
Current liabilities:			
Notes payable	$ -	$ 2,595	(2,595)
Accounts payable	7,567	9,431	(1,864)
Income taxes	2,124	186	1,938
Other accrued liabilities	16,419	14,436	1,983
Current portion of long-term debt	401	3,643	(3,242)
Total current liabilities	26,511	30,291	
Deferred income taxes	1,951	1,628	323
Long-term debt	15,031	16,774	(1,743)
Shareholders' equity:			
Common stock	886	883	3
Additional paid-in capital	7,146	6,714	432
Retained earnings	56,341	44,668	11,673
Less treasury stock	(5,260)	-	(5,260)
	59,113	52,265	
Total liabilities and shareholders' equity	$ 102,606	$ 100,958	1,648

Other assets are operating-related.

Calculating Operating Cash Flow
Barton Industries, Inc. (cont'd)

Start with net income

Adjust for non-operating gains and losses to move them to investing or financing sections:

Subtract gains and add losses –

- On sales of investments or PP&E (investing items)
- On early retirement of debt (financing items)

Add non-cash expenses such as depreciation and amortization expense

Adjust for:

(Increase) Decrease in operating-related assets

- Accounts receivable
- Inventory
- Prepaid expenses
- Deferred tax assets
- Other assets – operating-related only

Increase (Decrease) in operating-related liabilities

- Accounts payable
- Accrued expenses payable
- Deferred tax liabilities
- Other liabilities – operating-related only

Calculating Operating Cash Flow
Barton Industries, Inc. (cont'd)

Net earnings	$ 12,550
Gain on sale of equipment	(4,000)
Depreciation	6,010
Accounts receivable↓	5,646
Inventories↓	7,283
Prepaids↓	32
Other assets↑	(632)
Accounts payable↓	(1,864)
Income taxes payable↑	1,938
Other accrued liabilities↑	1,983
Deferred income tax liability↑	323
Operating cash flow	$ 29,269

Calculating Investing Cash Flow
Barton Industries, Inc. (cont'd)

To calculate cash provided (used) by investing activities:

For depreciable assets:

Calculate the change in book value (net of accumulated amortization or depreciation, if any) -

An increase is a (use) of cash, a decrease is a source of cash

Adjust for depreciation and amortization expense as an additional (use) of cash

Adjust for gain or loss on sale of assets -
A gain is a source of cash
A loss is a (use) of cash

Overall total is capital expenditures net of dispositions

Investing Cash Flow Example
Depreciable Assets

Beginning and ending cost and accumulated depreciation amounts:

	Beginning	Ending
Depreciable assets - cost	$1,000	$ 1,000
Accumulated depreciation	(600)	(700)
Depreciable assets - book value	$ 400	$ 300

No purchases or sales of depreciable assets. Depreciation of $100 was recorded during the year.

Calculating investing cash flow:

Decrease in depreciable assets book value	$ 100
Depreciation expense	(100)
Capital expenditures, net	$ 0

Investing Cash Flow Example
Depreciable Assets

Beginning and ending cost and accumulated depreciation amounts:

	Beginning	Ending
Depreciable assets - cost	$1,000	$ 1,400
Accumulated depreciation	(600)	(800)
Depreciable assets - book value	$ 400	$ 600

Depreciable assets were purchased during the year for $400. Depreciation of $200 was recorded during the year.

Calculating investing cash flow:

Increase in depreciable assets book value	$ (200)
Depreciation expense	(200)
Capital expenditures, net	$ (400)

Investing Cash Flow Example
Depreciable Assets

Beginning and ending cost and accumulated depreciation amounts:

	Beginning	Ending
Depreciable assets - cost	$ 2,000	$ 1,900
Accumulated depreciation	(800)	(700)
Depreciable assets - book value	$ 1,200	$ 1,200

Depreciable assets were purchased during the year for $900. Depreciable assets with cost of $1,000 and accumulated depreciation of $300 were sold for $600. A loss on sale of $100 was recorded. Depreciation of $200 was recorded during the year.

Calculating investing cash flow:

Increase in depreciable assets book value	$ 0
Loss on sale	(100)
Depreciation expense	(200)
Capital expenditures, net	$ (300)

Capital expenditures net consist of depreciable assets purchased for $(900) and proceeds from sale of depreciation assets of $600.

Calculating Investing Cash Flow

For nondepreciable assets (investments in stocks and bonds)

Calculate the change in the investment balance during the year.

An increase is a (use) of cash, a decrease is a source of cash

Adjust for gain or loss on sale of assets
A gain is a source of cash
A loss is a (use) of cash

Overall total is net cash (used) provided by purchases or sales of investments

Calculating Investing Cash Flow
Barton Industries, Inc. (cont'd)

Property and equipment, net↑	$ (15,199)	
Gain on sale of equipment	4,000	
Depreciation	(6,010)	
Capital expenditures, net		$(17,209)

There were no other investing activities.

Calculating Financing Cash Flow

To calculate cash provided (used) by financing activities:

Calculate the change in debt principal

An increase is a source of cash, a decrease is a (use) of cash
Adjust for Gain (Loss) on debt retirement

Calculate the change in all paid in capital accounts (excluding retained earnings)

An increase is a source of cash, a decrease is a (use) of cash

Calculate the change in retained earnings unexplained by net income

   Beginning retained earnings
\+ Plus net income
\- Minus ending retained earnings
= Dividends (change sign)

A decline in retained earnings unexplained by net income consists of a use of cash for dividends paid.

For Treasury Stock purchases:

An increase in treasury stock (becomes more negative) is a (use) of cash, as shares are repurchased.

A decrease in treasury stock (becomes less negative) is a source of cash, as shares previously repurchased are resold.

Calculating Financing Cash Flow
Barton Industries, Inc. (cont'd)

Notes payable↓		$ (2,595)
Current portion of long-term debt↓	$ (3,242)	
Long-term debt↓	(1,743)	
Repayment of long-term debt		(4,985)
Common stock↑	$ 3	
Additional paid-in capital	432	
Common stock financing		435
Dividends paid:		
Beginning R/E	$ 44,668	
Plus net income	12,550	
Minus ending R/E	-56,341	
Dividends paid		(877)
Treasury stock↑		(5,260)
Financing cash flow		$ (13,282)

Barton Industries, Inc.
Overall Change in Cash

Operating cash flow	$ 29,269
Investing cash flow	(17,209)
Financing cash flow	(13,282)
Change in cash	$ (1,222)

Calculating Operating, Investing and Financing Cash Flow
Forders, Inc.
(all amounts in 000s)

Required: use the attached financial statements to calculate operating, investing and financing cash flow. All three should sum to the actual change in cash.

Special note:
Depreciation expense in the amount of $7,519 is included in cost of goods sold.

Other current assets and current liabilities are operating-related. Other noncurrent liabilities are financing-related.

Calculations:

Forders, Inc. (cont'd)

The income statement . . .

Year-ended March 31, Amounts in (000's)	2018	2017
Net Sales	$ 316,494	$ 231,572
Costs and expenses:		
Cost of sales	249,369	182,309
Selling, general and administrative	29,472	25,358
	278,841	207,667
Operating income	37,653	23,905
Loss on disposal of investment	(1,000)	
Interest expense	(962)	(4,102)
Income before income taxes	35,691	19,803
Income taxes	6,187	594
Income before cumulative effect of an accounting change	29,504	19,209
Cumulative effect of an accounting change	-	1,780
Net income	$ 29,504	$ 20,989

Forders, Inc. (cont'd)

The Balance Sheet . . .

	2018	2017	Inc (Dec)
Assets			
Current Assets:			
Cash and cash equivalents	$ 57,707	$ 34,869	22,838
Accounts receivable, net	8,847	12,840	(3,993)
Inventories	29,020	18,048	10,972
Deferred income taxes	2,954	-	2,954
Other current assets (operating)	893	674	219
Total current assets	99,421	66,431	
Net property and equipment	30,803	27,372	3,431
Deferred income taxes	1,277	-	1,277
Investments	5,274	6,850	(1,576)
	$ 136,775	$ 100,653	36,122
Liabilities and Shareholders' Equity			
Current liabilities:			
Current portion of long-term debt	$ 590	$ 616	(26)
Accounts payable	5,591	5,315	276
Income taxes payable	9,131	758	8,373
Accrued expenses	27,986	21,369	6,617
Total current liabilities	43,298	28,058	
Long-term debt	4,516	17,327	(12,811)
Deferred income taxes	-	1,175	(1,175)
Accrued warranty liability	3,962	2,852	1,110
Other long-term liabilities (financing)	2,457	1,924	533
Shareholders' equity:			
Common stock	34,100	32,535	1,565
Additional paid-in capital	43,687	41,715	1,972
Retained earnings (accumulated deficit)	4,740	(24,764)	29,504
Cumulative translation adjustment	15	(169)	184
Total shareholders' equity	82,542	49,317	
	$ 136,775	$ 100,653	36,122

Calculating Operating, Investing and Financing Cash Flow
DHTK Corp.
(all amounts in 000s)

Required: use the attached financial statements to calculate operating, investing and financing cash flow for 2018. All three should sum to the actual change in cash.

Special note:
No income statement is provided. Net income for 2018 was $5,790. Deducted in arriving at this amount were depreciation of fixed assets for $1,616 and amortization of intangibles for $403. A gain on early retirement of debt for $424 was included in net income.

Income tax provision is $2,500.

Other noncurrent assets are investing-related.

Computations:

DHTK Corp.
Balance Sheet
(amounts in thousands)

	2018	2017	Inc. (Dec.)
Assets			
Current Assets:			
Cash and equivalents	$ 26,671	$ 22,289	4,382
Accounts receivable, net	6,825	7,245	(420)
Inventories	6,595	5,526	1,069
Deferred tax benefit	354	95	259
Prepaid expenses	557	418	139
Total current assets	41,002	35,573	
Fixed assets, net	4,254	4,731	(477)
Intangibles, net	2,458	2,861	(403)
Other assets (Investing)	448	948	(500)
	$ 48,162	$ 44,113	4,049
Liabilities and Shareholders' Equity			
Current liabilities:			
Accounts payable	$ 2,819	$ 3,425	(606)
Current portion of long term debt	786	1,168	(382)
Notes payable	--	742	(742)
Accrued payroll, payroll taxes and benefits	751	651	100
Accrued expenses	1,088	785	303
Income taxes payable	664	733	(69)
Accrued warranty	332	269	63
Deferred revenue	16	121	(105)
Total current liabilities	6,456	7,894	
Long term debt	1,572	2,519	(947)
Deferred tax liability	232	169	63
Total liabilities	8,260	10,582	
Shareholders' equity:			
Common stock	8,928	8,347	581
Retained earnings	30,974	25,184	5,790
Total shareholders' equity	39,902	33,531	
	$ 48,162	$ 44,113	4,049

Worksheet for Indirect Method Cash Flow Statement

On the next page a worksheet is provided as an aid in preparing an indirect method cash flow statement.

Begin by entering net income.

Depreciation and amortization expense should be entered as a source in the operating section and a use in the investing section.

Gains on assets sales should be entered as a use in the operating section and a source in the investing section.

Losses on asset sales should be entered as a source in the operating section and a use in the investing section.

Gains on debt retirement should be entered as a use in the operating section and a source in the financing section.

Losses on debt retirement should be entered as a source in the operating section and a use in the financing section.

Complete the worksheet by entering all balance sheet changes in proper sections, operating, investing or financing.

Pay attention to whether other assets and liabilities are operating, investing or financing-related.

Worksheet for Indirect Method Cash Flow Statement

Company: ____________________ Year: __________

Operating cash flow:		
Net income		________
(Gain) loss on disposal of PP&E		________
(Gain) loss on disposal of investments		________
Depreciation expense		________
Amortization expense		________
Changes in operating-related assets:		
Decrease (increase) receivables	________	
Decrease (increase) inventory	________	
Decrease (increase) prepaids	________	
Decrease (increase) in tax refund receivable	________	
Decrease (increase) in deferred tax assets	________	
Decrease (increase) in other oper. current assets	________	
Decrease (increase) in other oper. noncurrent assets	________	
Changes in operating-related liabilities:		
Increase (decrease) accounts payable	________	
Increase (decrease) accruals	________	
Increase (decrease) deferred revenue	________	
Increase (decrease) in taxes payable	________	
Increase (decrease) in deferred tax liabilities	________	
Increase (decrease) in other oper. current liab.	________	
Increase (decrease) in other oper. noncurrent liab.	________	
Increase (decrease) in accrued interest payable	________	
Subtotal: Changes in operating assets & liabilities		________
Operating cash flow		________

Worksheet for Indirect Method Cash Flow Statement (cont'd)

Company: ____________________

Operating cash flow		________
Investing cash flow:		
Decrease (increase) in PP&E, net	________	
Depreciation and amortization (expense)	________	
Gain (loss) on sale of PP&E	________	
Capital expenditures		________
Decrease (increase) in investments	________	
Gain (loss) on sale of investments	________	
Equity method income (loss)	________	
(Purchase) sale of investments		________
Decrease (increase) in goodwill & intangibles	________	
Amortization (expense) and impairment (charge)	________	
(Purchase) sale of intangibles		________
Decrease (increase) in other assets	________	
Gain (loss) on sale of other non-operating assets	________	
(Purchase) sale of other non-operating assets		________
Investing cash flow		________
Financing cash flow:		
Increase (decrease) in short-term debt		________
Increase (decrease) in long-term debt	________	
Gain (loss) on debt retirement	________	
Net long-term debt financing (retirement)		________
Increase (decrease) in equity		________
(Beg.) R/E	________	
Net (income) loss	________	
End R/E	________	
Dividends declared	________	
Increase (decrease) in Dividends Payable	________	
Dividends (paid)		________
Increase (decrease) other non-operating liabilities		________
Other unexplained increase (decrease) in R/E		________
Financing cash flow		________
Change in cash		________

Preparing an Indirect-Method Format Cash Flow Statement
Jewel's Jewelers, Inc.

Income statement and balance sheet data for Jewel's Jewelers, Inc. are provided below. Use the blank worksheet provided to prepare a cash flow statement in the indirect format for the year ended January 31, 2018.

For the year ended January 31, 2018 the provision for depreciation and amortization of property and equipment amounted to $1,634 (in 000s).

Other noncurrent assets are investing related.

Other current liabilities are operating related. Other noncurrent liabilities are financing related.

Amounts in (000's)

Year-ended January 31, Amounts in (000's)	2018	2017
Sales	$ 290,344	$ 230,488
Cost of sales	145,833	118,348
Gross profit	144,511	112,140
Selling, general and administrative expense	100,318	78,449
Operating income (loss)	44,193	33,691
Other income (expense):		
Interest (expense)	(826)	(2,174)
Other (expense)	(335)	(323)
Income (loss) before income taxes	43,032	31,194
Provision for income taxes	18,131	14,374
Income before extraordinary items	24,901	16,820
Extraordinary items	-	(644)
Net income (loss)	$ 24,901	$ 16,176

Jewel's Jewelers, Inc. (cont'd)

	Jan. 31, 2018	Jan. 31, 2017	Inc. (Dec.)
	Assets		
Current Assets:			
Cash and equivalents	$ 1,599	$ 12,861	(11,262)
Accounts receivable, net	25,525	25,710	(185)
Inventories	103,771	70,778	32,993
Prepaid expenses	6,544	4,589	1,955
Total current assets	137,439	113,938	
Property and equipment, net	22,437	12,086	10,351
Other assets (Investing)	2,772	645	2,127
	$ 162,648	$ 126,669	35,979
	Liabilities and Shareholders' Equity		
Current liabilities:			
Short-term borrowings	$ 7,253	$ -	7,253
Accounts payable	23,645	20,895	2,750
Accrued liabilities	11,853	9,126	2,727
Merchandise and other customer credits	6,525	5,276	1,249
Income taxes payable	3,995	9,913	(5,918)
Other current liabilities (Operating)	2,339	1,956	383
Total current liabilities	55,610	47,166	
Other long-term liabilities (Financing)	1,647	1,807	(160)
Deferred income taxes	6,198	6,075	123
Shareholders' equity:			
Common stock	102	86	16
Additional paid-in capital	54,573	50,096	4,477
Retained earnings	45,047	21,530	23,517
Foreign currency translation adjustment	(438)		(438)
Treasury stock	(91)	(91)	0
Total shareholders' equity	99,193	71,621	
	$ 162,648	$ 126,669	35,979

Worksheet for Indirect Method Cash Flow Statement

Company: ____________________ Year: __________

Operating cash flow:		
Net income		________
(Gain) loss on disposal of PP&E		________
(Gain) loss on disposal of investments		________
Depreciation expense		________
Amortization expense		________
Changes in operating-related assets:		
Decrease (increase) receivables	________	
Decrease (increase) inventory	________	
Decrease (increase) prepaids	________	
Decrease (increase) in tax refund receivable	________	
Decrease (increase) in deferred tax assets	________	
Decrease (increase) in other oper. current assets	________	
Decrease (increase) in other oper. noncurrent assets	________	
Changes in operating-related liabilities:		
Increase (decrease) accounts payable	________	
Increase (decrease) accruals	________	
Increase (decrease) deferred revenue	________	
Increase (decrease) in taxes payable	________	
Increase (decrease) in deferred tax liabilities	________	
Increase (decrease) in other oper. current liab.	________	
Increase (decrease) in other oper. noncurrent liab.	________	
Increase (decrease) in accrued interest payable	________	
Subtotal: Changes in operating assets & liabilities		________
Operating cash flow		________

Worksheet for Indirect Method Cash Flow Statement (cont'd)

Company: ____________________

Operating cash flow		________
Investing cash flow:		
Decrease (increase) in PP&E, net	________	
Depreciation and amortization (expense)	________	
Gain (loss) on sale of PP&E	________	
Capital expenditures		________
Decrease (increase) in investments	________	
Gain (loss) on sale of investments	________	
Equity method income (loss)	________	
(Purchase) sale of investments		________
Decrease (increase) in goodwill & intangibles	________	
Amortization (expense) and impairment (charge)	________	
(Purchase) sale of intangibles		________
Decrease (increase) in other assets	________	
Gain (loss) on sale of other non-operating assets	________	
(Purchase) sale of other non-operating assets		________
Investing cash flow		________
Financing cash flow:		
Increase (decrease) in short-term debt		________
Increase (decrease) in long-term debt	________	
Gain (loss) on debt retirement	________	
Net long-term debt financing (retirement)		________
Increase (decrease) in equity		________
(Beg.) R/E	________	
Net (income) loss	________	
End R/E	________	
Dividends declared	________	
Increase (decrease) in Dividends Payable	________	
Dividends (paid)		________
Increase (decrease) other non-operating liabilities		________
Other unexplained increase (decrease) in R/E		________
Financing cash flow		________
Change in cash		________

The Earnings Quality Indicator (EQI)

Because earnings altered through creative accounting practices do not change operating cash flow, the relationship between earnings and cash flow can be used to detect creative accounting practices.

In particular, a ratio of adjusted cash flow from operations less adjusted income from continuing operations, all divided by revenue, or the Earnings Quality Indicator, (EQI), is sensitive to earnings changes that are not cash flow backed.

EQI = (CF – Income) / Revenue,

Where,

CF = adjusted cash flow from operations

Income = adjusted income from continuing operations

We speak here of adjusted cash flow from operations. This cash flow measure consists of cash provided by operations adjusted for nonrecurring and nonoperating cash flow items.

Income from continuing operations should also be adjusted for obvious, material nonrecurring items of income or expense.

The objective here is to surface income items that are not so obvious.

Using EQI

Once adjusted cash flow and income have been calculated, the EQI ratio can be computed.

Declines in the EQI ratio will be an indication that earnings are growing faster than operating cash flow.

Closer examination should be made to determine why that is the case.

It is possible that creative accounting steps are being taken to boost earnings temporarily.

A sudden increase in the ratio, caused by an increase in operating cash flow in excess of an increase in earnings, while of less concern, should also be examined.

Such a development may be the result of a concerted effort to manage earnings downward in an effort to store them for future periods.

Using the EQI Ratio (cont'd)

Operating cash flow is inherently more volatile than operating earnings. Accordingly, it should be expected that the adjusted cash flow-to-income ratio will vary around its general trend.

To discern broad movements, it may be necessary to compare the ratio for a current period with the mean or average ratio calculated over two or three previous periods.

The number of periods used depends on the volatility of the company's operating earnings and cash flow and the number of periods of data available.

Understanding EQI

EQI is a measure of what can be termed "excess cash margin."

It is calculated as net cash margin (operating cash flow / revenue) less net earnings margin (earnings / revenue).

Thus, it is the excess of net cash margin over net earnings margin.

It is when the relationship of the two – net cash margin and net earnings margin – change that one must look more closely to determine why.

Stable EQI
Apple, Inc.

Apple, Inc., Operating Cash Flow, Revenue, Operating Earnings, and Calculation of EQI, Years Ending 2013 – 2017 (millions of dollars)

	2013	2014	2015	2016	2017
Obtained from statement of cash flows:					
Operating cash flow[a]	$53,666	$59,713	$81,266	$65,824	63,598
Obtained from income statement:					
Revenue (REV)	$170,910	$182,795	$233,715	$215,639	$229,234
Obtained from income statement:					
Operating earnings (OE)[b]:	$37,037	$39,510	$53,394	$45,687	$48,351
EQI:	9.7%	11.1%	11.9%	9.3%	6.7%

[a]No significant adjustments noted.
[b]No significant adjustments noted.

Operating cash flow growth matches growth in revenue and net income. EQI remains relatively stable, though rising and falling with no discernible pattern.

Rising EQI
Microsoft Corp.

Microsoft Corp., Operating Cash Flow, Revenue, Operating Earnings, and Calculation of EQI, Years Ending December 31, 2013 – 2017 (millions of dollars)

	2013	2014	2015	2016	2017
Obtained from statement of cash flows:					
Reported operating cash flow[a]	$28,833	$32,231	$29,080	$33,325	$39,507
Obtained from income statement:					
Revenue	$77,849	$86,833	$93,580	$85,530	$89,950
Obtained from income statement:					
Reported operating earnings[b]	$21,863	$22,074	$18,789	$16,798	$21,704
EQI:	9.0%	11.7%	11.0%	19.3%	19.8%

[a]No significant adjustments were noted.

[b]Adjusted in 2015 for $6,596 tax-effected restructuring impairment and restructuring charge.

Declining EQI and a Closer Look
Target Corp.

Target Corp., Operating Cash Flow, Revenue, Operating Earnings, and EQI, Years Ending February 2001 - February 2007
(millions of dollars)

	2001	2002	2003	2004	2005	2006	2007
Obtained from statement of cash flows:							
Adjusted operating cash flow[a]	$2,134	$2,012	$1,590	$3,160	$3,808	$4,451	$4,862
(Increase) in accounts receivable	--	(1,193)	(2,194)	(744)	(209)	(244)	(226)
Obtained from income statement:							
Revenue	36,851	39,826	43,917	46,781	46,839	52,620	59,490
Obtained from income statement:							
Adjusted operating earnings[a]	$1,264	$1,368	$1,654	$1,841	$1,885	$2,408	$2,787
EQI:	2.36%	1.62%	-.15%	2.82%	4.11%	3.88%	3.49%

[a]No significant adjustments were noted.
[b]Increase in company's credit card receivables was biggest factor explaining year-to-year changes in operating cash flow.

Note that EQI was 2.36% in the year ended February 3, 2001, which was the year before it introduced its own credit card. During the year in which its card was introduced, the year ended February 2, 2002, accounts receivable increased $1,193 million, creating a drag on operating cash flow. As a result, as earnings increased to $1,368 million that year from $1,264 million in 2001, operating cash flow declined to $2,012 million from $2,134 million in 2001. EQI declined to 1.62% in 2002 from 2.36% in 2001.

During the year ended February 1, 2003, accounts receivable increased another $2,194 million. That year, operating cash flow declined even more and EQI became negative, dropping to -.15%. Clearly the trend was not a promising one.

The increase in credit card receivables slowed to $744 million in the year ended January 31, 2004. As a result, that year the company generated significantly more operating cash flow, $3,160 million, than it had in any recent reporting period. EQI also improved to 2.82%, higher than it was in the year ended February 3, 2001, before the company introduced its own credit card. In subsequent years, the significant increases in receivables noted earlier did not continue and EQI stabilized – to-date, problems have been averted.

EQI Steadies
Target Corp. (cont'd)

Target Corp., Operating Cash Flow, Revenue, Operating Earnings, and Calculation of EQI, Years Ending January 2015 – 2017 (millions of dollars)

	2015	2016	2017
Obtained from statement of cash flows:			
Operating cash flow[b]	$5,157	$5,254	$5,329
Obtained from income statement:			
Revenue (REV)	$72,618	$73,785	$69,495
Obtained from income statement:			
Operating earnings (OE)[b]:	$2,449	$3,321	$2,669
EQI:	3.7%	2.6%	3.8%

[a]No significant adjustments noted.
[b]No significant adjustments noted.

EQI Surfaces Problems
Krispy Kreme Doughnuts, Inc.

Operating Cash Flow, Revenue, Income from Continuing Operations and EQI: Krispy Kreme Doughnuts, Inc., Years Ending February 1, 2001, 2002, 2003, and 2004 (thousands of dollars)

	2001	2002	2003	2004
Obtained from statement of cash flows:				
Reported cash flow provided by continuing operations	$ 32,112	$ 36,210	$51,036	$95,553
Adjustments:				
Tax benefit from stock options	(595)	(9,772)	(13,795)	(42,806)
Adjusted cash flow provided by Operations	31,517	26,438	37,241	52,747
Obtained from income statement:				
Revenue	300,715	394,354	491,549	665,592
Reported income from Continuing operations	$14,725	$26,378	$33,478	$57,087
Adjustment:				
Arbitration award after tax			5,445	(315)
Adjusted income from contin. Ops	$14,725	$26,378	$38,923	$56,772
EQI	5.6%	.02%	-.3%	-.6%

For Krispy Kreme, the year ended February 1, 2004 was the last one before an internal investigation and an SEC inquiry were begun into how transactions with affiliates were handled.

While operating cash flow didn't turn negative, it is clear from the above presentation that operating cash flow was not growing as fast as income from continuing operations.

The balance sheet showed a build up of accounts receivable and notes receivable from affiliates.

EQI Surfaces Problems (Cont'd)
Enron Corp.

Operating Cash Flow, Operating Income, and Calculation of EQI: Enron Corp., Years Ending December 31, 1996, 1997, 1998, 1999, 2000, and 1st 6 months of 2001 (millions of dollars)

	1996	1997	1998	1999	2000	6Mo 2001
Obtained from statement of cash flows:						
Reported cash flow provided by continuing operations	$ 884	$ 211	$ 1,640	$1,228	$4,779	($1,337)
Adjustments:						
Increase in customer deposits					(1,881)	
Increase in A/P days					(4,365)	
Unexplained "other"					(1,113)	
Net (proceeds) from sale, cost to purchase investments	192	(31)	(713)	(1,390)	(543)	(304)
Adjusted cash flow provided (used) by continuing operations	$ 1,076	$ 180	$ 927	($ 162)	$(3,123)	($1,641)
Obtained from income statement:						
Revenue	$13,289	$20,273	$31,260	$40,112	$100,789	$100,189
Reported income from Continuing operations	$584	$105	$703	$1,024	$979	$810
Adjustments:						
Contract restructure charge*		405				
Impairment of assets*			196	265	--	
Adjusted income from continuing operations	$584	$510	$899	$1,289	$979	$810
*After tax.						
EQI:	3.7%	-1.63%	.09%	-3.62%	-4.07%	-2.5%

Aggressive income reporting by Enron resulting in a continuing decline in the EQI.

EQI Surfaces Problems (Cont'd)
Beazer Homes USA, Inc.

Beazer Homes USA, Inc., Operating Cash Flow, Revenue, Operating Earnings, and Calculation of EQI, Years Ending Sept. 2002 – 2006.
(millions of dollars)

	2002	2003	2004	2005	2006
Obtained from statement of cash flows:					
Adjusted operating cash flow[a]	59.5	(41.0)	(73.7)	(84.3)	(304.5)
Obtained from income statement:					
Revenue (REV)	2,641	3,117	3,907	4,995	5,462
Obtained from income statement:					
Adjusted operating earnings (OE)[b]	122.6	302.7	236	392.7	388.8
EQI:	-2.39%	-11.03%	-7.93%	-9.55%	-12.69%
Stock price	20	35	35	80	40
					…low of <5

[a]Adjustments for tax benefits from stock options were immaterial.
[b]2003 adjusted for goodwill impairment of $130.

EQI has Improved
Beazer Homes USA, Inc. (cont'd)

Beazer Homes USA, Inc., Operating Cash Flow, Revenue, Operating Earnings, and Calculation of EQI, Years Ending Sept. 2015 – 2017 (millions of dollars)

	2015	2016	2017
Obtained from statement of cash flows:			
Operating cash flow[a]	$-81.0	$163.0	$95.9
Obtained from income statement:			
Revenue (REV)	$1,627	$1,822	$1,916
Operating earnings (OE)[b]:	$14.3	$5.2	$32.0
EQI:	-5.9%	8.7%	3.3%

[a]No significant adjustments noted.
[b]Adjusted for nonrecurring credit to income tax expense in 2015.

Where's the Cash Flow?
EQI at Decker's Turns Negative
Stock Price Suffers

Operating Cash Flow, Operating Income, and Calculation of EQI: Decker's, Inc., Years Ending December 31, 2007, 2008, 2009, 2010, and 2011
(millions of dollars)

	2007	2008	2009	2010	2011
Obtained from statement of cash flows:					
Reported cash flow provided by continuing operations	$ 61	$ 53	$185	$140	$ 30
Obtained from income statement:					
Revenue	$449	$689	$813	$1,001	$1,377
Reported income from Continuing operations	$66	$74	$117	$158	$199
EQI:	-1.11%	-3.05%	8.36%	-1.80%	-12.27%

Within 30 days of the company's release of its 2011 results the company's stock price declined by 33%.

Forders, Inc.
Solution Note

Operating cash flow:		
Net income		$ 29,504
Loss on disposal of investment		1,000
Depreciation expense		7,519
Accounts receivable↓		3,993
Inventories↑		(10,972)
Current deferred income tax assets↑		(2,954)
Other current assets↑		(219)
Noncurrent deferred income tax assets↑		(1,277)
Accounts payable↑		276
Income taxes payable↑		8,373
Accrued expenses payable↑		6,617
Noncurrent deferred income tax liabilities↓		(1,175)
Accrued warranty liability↑		1,110
Operating cash flow		**41,795**
Investing cash flow:		
Net property and equipment↑	$ (3,431)	
Depreciation expense	(7,519)	
Net capital expenditures		(10,950)
Investments↓	1,576	
Loss on sale	(1,000)	
Proceeds from sale of investments		576
Investing cash flow		**(10,374)**
Financing cash flow:		
Current portion of long-term debt↓	$ (26)	
Long-term debt↓	(12,811)	
Repayment of long-term debt		$ (12,837)
Other long-term liabilities↑		533
Common stock↑	1,565	
Additional paid-in capital↑	1,972	
Common stock financing		3,537
Dividends paid:		
Beginning (deficit)	(24,764)	
Plus net income	29,504	
Less ending retained earnings	- 4,740	
Dividends paid		0
Cumulative translation adjustment		184
Financing cash flow		**(8,583)**
Change in cash		$ 22,838

Solution: Cash Flow Exercise

DHTK Corp.

Net income		$ 5,790
Depreciation		1,616
Amortization		403
Gain on debt retirement		(424)
Dec. in accounts receivable		420
Inc. in inventory		(1,069)
Inc. in deferred tax benefit		(259)
Inc. in prepaid expenses		(139)
Dec. in accounts payable		(606)
Inc. in accrued payroll, payroll taxes and benefits		100
Inc. in accrued expenses		303
Dec. in income taxes payable		(69)
Inc. in accrued warranty		63
Dec. in deferred revenue		(105)
Inc. in deferred tax liability		63
Cash provided by operating activities		$ 6,087
Investing activities:		
Decrease in fixed asset, net	$ 477	
Depreciation	(1,616)	
Decrease in intangibles, net	403	
Amortization	(403)	
Decrease in other assets	500	
Cash (Used) in Investing Activities		(639)
Financing activities:		
Decrease in current portion of long-term debt	(382)	
Decrease in notes payable	(742)	
Gain on debt retirement	424	
Decrease in long-term debt	(947)	
Increase in common stock	581	
Dividends paid (Increase in retained earnings of $5,790 equals net income)	0	
Cash (Used) in Financing Activities		(1,066)
Increase in cash		$ 4,382

Jewel's Jeweler's Indirect Cash Flow Solution

Operating cash flow:		
Net income		24,901
Depreciation expense		1,634
Changes in operating-related assets:		
Decrease (increase) receivables	185	
Decrease (increase) inventory	(32,993)	
Decrease (increase) prepaids	(1,955)	
Changes in operating-related liabilities:		
Increase (decrease) accounts payable	2,750	
Increase (decrease) accruals	3,110	
Increase (decrease) deferred revenue	1,249	
Increase (decrease) in taxes payable	(5,918)	
Increase (decrease) in deferred tax liabilities	123	
Subtotal: Changes in operating assets & liabilities		(33,449)
Operating cash flow		**(6,914)**
Investing cash flow:		
Decrease (increase) in PP&E, net	(10,351)	
Depreciation and amortization (expense)	(1,634)	
Capital expenditures		(11,985)
Decrease (increase) in investments		(2,127)
Investing cash flow		**(14,112)**
Financing cash flow:		
Increase (decrease) in short-term debt		7,253
Increase (decrease) in long-term debt		(160)
Increase (decrease) in common stock & APIC		4,493
Other comprehensive income		(438)
Beg. R/E	21,530	
Net (income) loss	+24,901	
End R/E	-45,047	
Dividends declared		(1,384)
Financing cash flow		9,764
Change in cash		**(11,262)**