

Homework set

Combining two sets of books using Purchase Accounting

Note: Before you begin this homework, you should have read and studied *chapter 3* of *Takeovers, Restructuring, and Corporate Governance* and you should have heard the lecture about purchase accounting. You will also need a working copy of the Excel workbook used with this assignment, labeled *puracct*. That spreadsheet uses the historical example of Compaq and DEC and you will complete this homework by overriding those historical values.

It may take the class two or three weeks to complete this assignment. Completing the assignment, which is highly automated, is not nearly so difficult as understanding what you have done. Please take sufficient time to try to figure out why the results came out as they did. And be patient. It is easy to make mistakes or misinterpret my instructions, and it is possible that there are some remaining bugs in the workbook. We'll make it work if we give ourselves enough time.

To do this homework, complete the following steps:

In preparation: Bring up your copy of the Excel workbook *puracct.xls*. Save a new copy under a new filename like *homework1* or *koaxdtvx*. Use this new file for your work. As you work through the pages, if this is your first time using the workbook, *read all of the hidden comments*.

For each of the remaining steps use the labeled pages in the *puracct* workbook.

Step 1: Details of acquisition

- The purchasing company is named Koax. Its stock sells for 15 ½, the par value is 0.01, and there are 1,500 million shares outstanding.
- The target company is named DTVX. Its stock sells for 40, the par value is 0.10, and there are 152 million shares outstanding.
- Koax made a tender offer of 2 shares of Koax for each share of DTVX, plus \$25 per share in cash.
- Use default values for acquisition transaction costs.

Step 2: Combining the balance sheets (unadjusted)

Use the following data to combine the balance sheets. Make sure the data reconciles. Register your data source as SEC 10K for 1998. [Go to next page]

ASSETS (see note)	Koax	DTVX
Cash & Equivalents	4,200.0	1,250.0
Short Term Investments	600.0	1,000.0
Net Accounts Receivable	3,000.0	2,500.0
Inventories	2,000.0	2,000.0
Prepaid Expenses	0.0	300.0
Deferred Income Taxes	200.0	0.0
Other Current Assets	0.0	0.0
Total Current Assets	10,000.0	7,050.0
Land	1,000.0	700.0
Buildings & Improvements	900.0	1,500.0
Machinery & Equipment	1,000.0	400.0
Other Fixed Assets	400.0	0.0
Gross Fixed Assets	3,300.0	2,600.0
Accumulated Depreciation	500.0	200.0
Net Fixed Assets	2,800.0	2,400.0
Goodwill	0.0	0.0
Investments and Advances	0.0	0.0
Other Assets NEC	0.0	0.0
Total Assets	12,800.0	9,450.0
LIABILITIES		
Bank Loans - Notes Payable	200.0	400.0
Other Short-term Debt	100.0	700.0
Current Portion Long-term Debt	0.0	0.0
Accounts Payable	2,400.0	750.0
Salaries and Wages Payable	0.0	650.0
Accrued Liabilities NEC	0.0	0.0
Income Taxes Payable	200.0	100.0
Other Current Liabilities	1,700.0	1,000.0
Total Current Liabilities	4,600.0	3,600.0
Long-term Debt	250.0	800.0
Deferred Income Taxes	0.0	0.0
Capital Lease Obligations	0.0	0.0
Other Non-Current Liabilities	0.0	1,200.0
Total Liabilities	4,850.0	5,600.0
Common Stock	15.0	15.2
Preferred Stock	0.0	0.0
Addl Paid in Capital	1,700.0	4,074.8
Treasury Stock	0.0	0.0
Adjustments (+)	0.0	0.0
Retained Earnings	6,235.0	-240.0
Stockholder's Equity	7,950.0	3,850.0
Reconciliation	0.0	0.0

Step 3: Means of finance

According to the top of this page, the amount to be financed equals \$3,800 (in millions). *Question: Where did this number come from? Make sure you know. Refer back to step 1 if in doubt.* This will be raised as cash. Koax has decided to use mezzanine financing from the following sources:

- \$800 million will be in the form of short term bank loans.
- Another \$600 million will be raised in 52-week bills (short-term debt).
- The remaining \$2,400 million will be raised with high-yield 10-year callable corporate bonds.

Step 4: Fair value calculation

Here we are calculating the fair value of the assets of the target company, DTVX. (Make sure you understand what this fair value calculation is for. Read the hidden notes at the top of the page). In our case we know the fair value entries that have to be made, so rather than use the defaults manually override the categories below. *Before doing this it is a good idea to set fair value equal to book value everywhere on the page so that all differences are zero.* This will minimize the likelihood of mistakes. Here are the fair value overrides:

- Short term investments - \$1,400 (the difference will be \$400)
- Inventories - \$2,450
- Land - \$1,800
- Buildings and improvements - \$3,200

Step 5: Allocation to goodwill

Because the workbook is automated, no further calculations or entries need to be made. It is important, though, to try to understand why these adjustments are being made. Therefore, try to answer these questions:

- Where did the figure labeled **Gross Differential** come from? What is this, and what is its importance?
- Where did the number for **Excess Value** come from? Why do we subtract it from **Gross Differential** to get **Allocation to Goodwill**?
- Where did the value for **Market (fair) value of new stock issued** come from?
- After adjustments for costs, how did we split the addition to stock value between **Par value of new stock issued** and **Add'l Paid in Capital**?

Step 6: Final combination Consolidated Balance Sheet

Again, this final page is automated, but not much is learned unless the adjustments on this page are understood. Those adjustments must reflect six separate classes of transactions:

1. The impact of the financing that was undertaken to pay for the cash portion of the takeover.
2. The adjustment for the fair value calculations.
3. The proper allocation to goodwill.
4. The addition to the stock accounts to account for the stock issued by the purchaser for the purposes of exchanging stock of the target.
5. Accounting for merger costs.
6. The zeroing out of the equity accounts of the target (their stocks disappear, of course).

All of these must be accounted for in debits and credits and the final adjusted accounts of the consolidated balance sheet. Look for these systematically using the following steps:

- Evaluate what happens to the *Cash and Equivalents* account. Find the original value for Koax on the original balance sheet (step 2), then the adjustment made in step 3, then the final reversing adjustment in the consolidation, highlighted in red. Do you see why this was done this way?
- Find the fair value adjustments. They are represented by the orange columns. Compare those entries to the entries made in step 4, fair value calculation.
- Find the debit to goodwill, represented by the grey cell. See where this value came from step 5, calculation of goodwill.
- Find the credits for the market value of new stock issued, divided between par value common stock and additional paid in capital. These are represented in blue cells and are derived from step 5.
- Find the merger cost credits, highlighted in purple (these will eventually show up as adjustments in Koax's books).
- See where the equity value of the target's stock is liquidated (debited) in the green columns, and see how that is largely offset by debits for new stock (blue cells, already checked above).
- See that debits and credits reconcile and that the final consolidated balance sheet reconciles.