Samples

**Real-World Illustrations for the First Accounting Course**

12 May 2023

**Using the First Accounting Course to Grab the Attention of Potential Accounting Majors**

The majority of students taking their first college accounting class have very LOW expectations; they are expecting a boring bookkeeping class. We can use these low expectations to our advantage by demonstrating interesting real-world applications from the first minute of the first day of class.

Will EVERY student see how interesting this is? NO. But the students who have options (finance, engineering, economics, …) will be intrigued.

Here are some samples of real-world illustrations that can be used in the first accounting course.

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**Walmart Insights Gleaned from the Financial Statements**

**Questions**:

1. When Walmart sells you items for $100, on average what is Walmart’s wholesale purchase price of those items?

2. When Walmart sells you items for $100, how much profit does Walmart get to keep after paying ALL business expenses?

3. How many days elapse, on average, from the time Walmart buys something from a supplier until Walmart sells that thing to a retail customer?

4. Walmart buys all of its goods on credit from its suppliers. For what fraction of the goods on Walmart’s shelves has Walmart not yet paid?

This set of questions about Walmart allows (and requires) the students to exercise their general business intuition to make connections between business reality and numbers reported in the financial statements.

Form the class into small groups of 3, 4, or 5 students.

Give the small student groups about 1 minute to brainstorm about the answer to these 4 questions.

***Ask for a group or two to give both their answer and their reasoning.***

Answers:

1. $76. So, on average Walmart buys something for $76, marks it up $24 to $100, and then sells it to me and you. Is this percentage the same for all items? Of course not. Time permitting, ask students to brainstorm about the items they think have a lower or higher purchase cost percentage than 76%.

2. $2.50. This 2.5% profit margin (or return on sales) has been declining over the past 30 years as Walmart has become the largest seller of groceries in the United States. Supermarkets are notorious for having low returns on sales. For example, the return on sales for Kroger, the second-largest seller of groceries in the United States (behind Walmart) has a return on sales of 1.5%. – Note: In 1985, BEFORE Walmart became a big seller of groceries, the company’s return on sales was 4.2%.

3. 45 days. Walmart is legendary for its aggressive inventory management. Consider the following:

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One of the authors once visited the production facility of a Walmart supplier. At the end of the tour, the owner took the author to a second warehouse full of completed products. This was a quiet warehouse compared to the primary warehouse. The author asked: “What inventory is this?” The owner said: “This is Walmart’s inventory.” The author responded: “So, this inventory belongs to Walmart?” “No,” said the owner. “We make this inventory for our budgeted Walmart sales, and Walmart lets us know when and where we should ship it.” – So, Walmart had outsourced its inventory management (along with inventory holding costs) to this eager supplier.

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**ASK**: In 2022, Apple’s supply of inventory was just 9 days of sales. Give the groups 1 minute to discuss how Apple can have such a LOW number of days’ sales in inventory.

* Ask a few groups for their ideas.

Half of Apple’s revenue comes from iPhone sales. And iPhones have to be manufactured. So, how does Apple have such a low amount of inventory? Well, those iPhones are manufactured by Apple’s suppliers and delivered to Apple just in time for Apple to sell them. In other words, the inventory behind this iPhone production process is on the books of Apple’s suppliers.

4. 110%!!??!! – Actually, this percentage varies a little from year to year. 110% is from the year 2020. The percentage in 2022 was closer to 95%. – Consider the following (from a LinkedIn post by one of the authors):

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**How Much of Walmart's Inventory is Not Yet Paid For?**

I was working on a teaching illustration this week and found something interesting in Walmart’s numbers for the year ended January 31, 2021: Walmart PAYS for its inventory 3 days AFTER it SELLS the inventory. Here is how I wrote it up for students.

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Go into a Walmart store, stand in the middle, and look around. What is that stuff that you see on Walmart’s shelves? Inventory. As of January 31, 2021, the total amount of inventory on the shelves of all 11,443 Walmart stores around the world was $44.9 billion, or an average of almost $4 million per store.

An important success factor for Walmart is managing how quickly all of this inventory moves through the system. Using the “number of day’s sales in inventory” financial ratio, it can be computed that the average inventory item is owned by Walmart for 39 days before it is sold to you or me. That is an overall average; some grocery items move much more quickly whereas some big-ticket items such as furniture and appliances move more slowly.

So, where does Walmart get the money to pay for this $44.9 billion in inventory? Let’s start with an easier question: Where does a brand-new startup retailer get the money to pay for its initial supply of inventory? Well, most, if not all, of the money will have to come from the investment capital of the owners. Maybe the owners can get a friendly bank to provide an inventory-purchase loan… with a high interest rate and a provision for the bank to be able to claim the inventory as collateral if the loan is not repaid. Or maybe the suppliers will allow the startup retailer to buy at least some of the inventory on credit… but the suppliers will probably add a premium to the inventory purchase price to compensate for this financing element.

But what about Walmart? Walmart is certainly not a “startup” retailer; the company has been around since 1962 and is the largest retail company in the history of the world. So, Walmart has long-standing credit arrangements with its suppliers. Using the “number of days’ purchases in accounts payable” ratio, it can be computed that Walmart paid its suppliers an average of 42 days after the purchase during the year ended January 31, 2021.

So, Walmart SELLS its inventory an average of 39 days after it buys the inventory and PAYS FOR the inventory an average of 42 days after it buys the inventory. Hmmm… these numbers mean that Walmart doesn’t have to PAY for its inventory until 3 days AFTER it SELLS that inventory.

The title of this post is “How Much of Walmart's Inventory is Not Yet Paid For?” Well, the quick answer is that ALL of the inventory you see on Walmart’s shelves is not yet paid for. In fact, on average some Walmart inventory that was sold 3 days ago is just now being paid for.

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**Where Can a Startup Company Get the Money to Start the Business?**

Introduce a hypothetical example: Lily, an entrepreneur wants to open an ice cream factory, and she will need $100 million to turn this dream into a real business. Ask the students to visualize the classroom as being a large ice cream production facility. Buying the land, building, equipment, and initial stock of raw materials will cost $100 million. Take the time to paint a visual picture of the factory and the ice cream business. What we want here is to begin to communicate to the students that the numbers on the accounting reports correspond to real things in the real world. -- The question: Where will Lily get the $100 million in financing to make this happen?

It is unlikely that Lily’s friends and family have $100 million to give her to start the business. Lily is going to have to ask **strangers** to provide the financing.

A key point here is that new businesses CANNOT get financing in a reasonable way without financial statements. In short, financial statements are essential to the functioning of our modern economy in which we don’t raise capital from friends and family but instead we are typically raising it from strangers.

***The key users of financial accounting data are lenders and investors, the people who provide the capital to a business so that an entrepreneur can turn her dreams into reality.***

**Walmart, Google, Apple, and Microsoft: Revenue Growth Over Time**

Give the students this graph.

**ASK**: Instruct the student groups to look at the Revenue numbers. What interesting trend do you see in the revenue numbers of APPLE? What is behind that trend?

* Ask a couple of groups for their ideas.

Apple sales started to separate, a little, from Google in fiscal 2008 and started to catch up with Microsoft in fiscal 2009.

The first iPhone was sold on June 29, 2007. Apple’s fiscal year ended on September 29, 2007. The first significant iPhone sales were in Apple’s fiscal 2008. In 2022, iPhone sales made up HALF of Apple’s total sales.

The announcement of the iPhone by Steve Jobs and January 9, 2007 was such a significant event that on that day the company changed its name… from “Apple Computer” to just “Apple.” This signaled the company’s shift from computers to consumer electronics.

**Name That Company! – Receivables and Unearned Revenue**

Description given to students:

***You will be given details about a certain balance sheet item for a well-known company. Using your knowledge of balance sheet terminology and your business intuition,***

This game allows (and requires) the students to exercise their general business intuition to make connections between business reality and numbers reported in a balance sheet. In addition, this game also provides a review of some income statement terminology.

**Receivables**

I have $36.8 billion in receivables. This is 66% of my total assets of $55.5 billion. Which company am I?

* Google
* Zions Bank
* Home Depot
* Boeing

Name That Company!

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Give the groups about 1 minute to brainstorm about the answer to the question.

* Ask for a group or two to give both their answer and their reasoning.

The answer is B, Zions Bank. People often have the mistaken impression that the largest asset of a bank is cash. Cash is not a productive asset. Banks make money by loaning money and collecting interest. Thus, their largest asset is Loans Receivable.

* Google has a fair amount of accounts receivable, but “receivables” are not the primary focus of Google.
* Home Depot has some receivables. These receivables are almost always from unusual items such as the sale of some unneeded land or some old buildings. – Home Depot does have its own credit card, but actually those credit card operations are owned and managed by a third party company that is independent of Home Depot. So, even though the credit card says “Home Depot,” Home Depot is not doing any of the work associated with collecting those accounts. In essence, the credit card is just like a VISA or MasterCard.
* Boeing has some receivables because Boeing does provide some financing for its customers. But again, receivables are not the focus of Boeing’s business model.

**Unearned Revenue**

One of my most important LIABILITIES relates to services for which people have already paid me but I have not yet delivered. The current amount of that liability is $7.6 billion. Which company am I?

* Exxon Mobil
* DuPont
* Home Depot
* United Airlines

Name That Company!

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Give the groups about 1 minute to brainstorm about the answer to the question.

* Ask for a group or two to give both their answer and their reasoning.

The answer is D, United Airlines. EVERYONE who flies on an airplane pays in advance. Thus, between the time that you pay United Airlines for your flight and the time that you actually fly, United must record an obligation to give you a plane ride for which you have already paid. United calls this liability “advance ticket sales.” Because the obligation is $7.6 billion and total ticket sales for 2022 were about $45 billion, you can tell that people pay in advance by roughly 61 days. United Airlines calls this liability “advance ticket sales.”

* Exxon Mobil doesn’t provide a substantial amount of services for sale, so this item doesn’t exist in the company’s balance sheet.
* DuPont also doesn’t provide a substantial amount of services for sale.
* Home Depot. Interestingly, Home Depot also has a relatively small obligation to perform services for which the company has already been paid. Home Depot sells a variety of installation and home maintenance services.

**Compute the amount of goodwill recorded when Disney purchased Lucasfilm (Star Wars)**

In 2012, Disney acquired Lucasfilm (Star Wars). Summary fair value information as of the acquisition date is as follows.

Fair value of all identifiable assets $0.0 billion

Fair value of liabilities 0.8 billion

Acquisition price (paid in cash) 4.1 billion

**Questions:**

1. Make the JOURNAL ENTRY necessary for Disney to record the acquisition of Lucasfilm.

2. Why did Disney pay $4.1 billion for a company that looks like it has a value of negative $0.8 billion?

**ASK**: Start with the journal entry. Give the groups 2 minutes to generate the journal entry.

ASK a couple of volunteers for the debit and the credit. This should generate some interesting, and creative, responses.

 ***Debit Credit***

**Various Assets (Asset ↑) 0.0**

**???? (????) 4.9**

 **Liabilities (Liability ↑) 0.8**

 **Cash (Asset ↓) 4.1**

**???? = Goodwill (Asset ↑) =$4.9 billion**

It is very important to work through the journal entry together, systematically. This systematic approach will help the students who are having debit-and-credit problems.

Step 1 – Find the CASH. The cash part of a journal entry is easy to do, so do it first just to get the ball rolling. In this case, Cash DECREASES, so it is a credit of $4.1 billion. Assets decrease with a Credit.

Step 2 – Look for other ASSETS. In this case, there are “Various Assets,” but their fair value is approximately ZERO. This is recorded as a debit of $0.0 billion. All of the sound equipment, studio buildings, cash, and any other tangible assets held by Lucasfilm on the date of the acquisition had a fair value, when rounded to the nearest $100 million, of $0.

Step 3 – Look for LIABILITIES. In this case, we see that we have various Liabilities with a fair value of $0.8 billion. An increase in a liability is recorded with a credit.

Step 4 (in this case) – Look to see whether debits equal credits. So far, debits do NOT equal credits. So we have to keep thinking. The missing amount in this case is the asset Goodwill.

**ASK**: Give the student groups 1 minute to brainstorm about why Disney paid so much when the actual identifiable assets of Lucasfilm were $0.

Ask a few groups for their thoughts.

Here is the Key Question: Why did Disney pay $4.1 billion for a company that looks like it has a value of **negative** $0.8 billion?

What was Disney really interested in buying when it purchased Lucasfilm?

For some acquisitions, such as that of Lucasfilm, the intangible assets are by far the most important assets acquired. And the accountants have to do their best to get reasonable estimates of the fair values of these assets to record in the books of the acquiring company.

For simplicity in this example, let’s classify all of these intangible assets as “Goodwill” and record them with a debit of $4.9 billion.

Disney was buying Lucasfilm’s relationships and other intangible assets such as trademarks.

What relationships?

* **With the hundreds of millions of people who are ready to watch a new Star Wars movie each year forever.**
* With technical people
* With performers
* With toy makers
* With movie theater chains
* With advertisers

Now, Disney could have developed these relationships themselves. And it would have cost billions of dollars and have taken years. Disney made the business decision to just BUY these relationships.

Was it worth it? So far the worldwide box office sales of the Star Wars movies made since the Disney purchase is about $5.5 billion. Of course, there have been substantial production and marketing costs. BUT there have also been substantial revenues from related items such as TV shows, toys, Disney park rides, and so forth. We’ll wait a few more years until we decide whether this was a good deal for Disney, but so far it looks OK.

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**Facebook IPO: A Case Study in Earnings Management**

Facebook went public in 2012. Before February 2012, the public had never seen Facebook net income numbers. In advance of the IPO, Facebook kept emphasizing that the company was NOT a money-losing technology hobby company but was instead a Billion dollar company. Billion. Billion. Billion.

So, it would be the Facebook income statement for 2011 that investors would see in February 2012 as their first evidence about whether Facebook actually was a profitable, billion-dollar company instead of just a technology hobby.

Before the preparation of this 2011 income statement, inside Facebook the net income for 2009 and for 2010 was already known. This was not public information. Here it is.



So, it is now the end of 2011, time to compute that all-important 2011 net income that will be the first Facebook net income number reported to the general public. Is Facebook a “billion dollar company”?

Well, this is a bit theatric, but I can imagine Facebook’s top management team and key investors meeting in a darkened room at midnight, December 31, 2011. They are waiting for the Facebook accountants to deliver the first estimate of that all-important 2011 number. [***This is a hypothetical story, but you’ll see that the final reported numbers support this story***.] Imagine those accountants bursting in and proclaiming: “Good news!” Net income in 2011 increased 60% over 2010.” – A 60% increase is very good news indeed; any company, and any individual, would feel happy with a one-year growth in net income of 60%.

But imagine the assembled group asking: “OK, but what is the NUMBER? How much is 2011 net income?”

The accountants answer: “$970 million.”

Again, I can imagine the assembled group telling the accountants: “Go back to the accounting room, re-examine your assumptions, and don’t come back here until the 2011 net income number starts with a ‘1’.” – Of course, a number starting with a “1” means that net income is one billion and something.

Well, here is the ACTUAL income statement for 2011 released by Facebook as part of their early 2012 IPO process.



EXACTLY $1.000 billion. Amazing.

Question: Do you think there was any “earnings management” here? ☺

If there was “earnings management,” the accountants for Facebook probably refined their depreciation estimates. Here is the depreciation-related note to Facebook’s 2011 financial statements.

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***Property and Equipment***

Property and equipment, which includes amounts recorded under capital leases, are stated at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the assets or the remaining lease term, in the case of a capital lease, whichever is shorter.

The estimated useful lives of property and equipment are described below:

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| **Property and Equipment** |    | **Useful Life** |
| Network equipment |    | Three to four years |
| Computer software, office equipment and other |    | Two to five years |
| Buildings |    | 15 to 20 years |
| Leased equipment and leasehold improvements |    | Lesser of estimated useful life or remaining lease term |

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Notice the range of useful lives within the different categories of property and equipment. Yes, there is some leeway here. And it certainly appears that the Facebook accountants used that leeway to report 2011 net income of EXACTLY $1.000 billion.

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