Finance: ACT349 F2014
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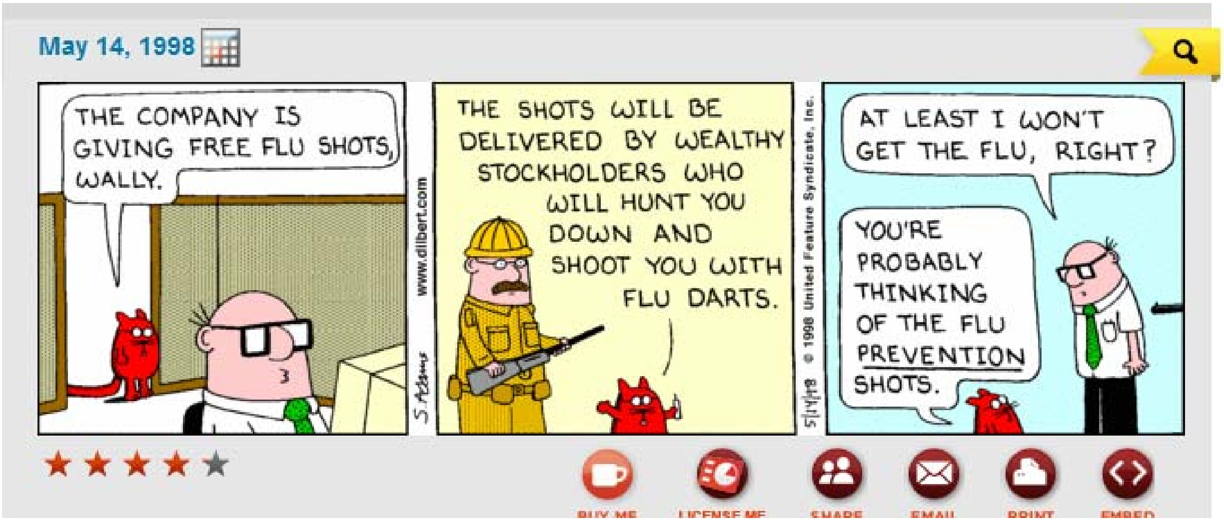
The beginnings (Roughly BMA 11th Ch 1)


May 14, 1998
THE COMPANY IS GIVING FREE FLU SHOTS, WALLY.
www.dilbert.com
THE SHOTS WILL BE DELIVERED BY WEALTHY STOCKHOLDERS WHO WILL HUNT YOU DOWN AND SHOOT YOU WITH FLU DARTS.
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AT LEAST I WON'T GET THE FLU, RIGHT?
YOU'RE PROBABLY THINKING OF THE FLU PREVENTION SHOTS.

Based on truth: Let's try to make money following a tip in a bar:
1669: Meet a fellow in a London pub saying beavers can be turned into good hats, and Hudson Bay gives access to a lot of beavers. You need a ship.
A 'sole proprietor' hot-dog salesperson or doctor or restaurant owner or drug lord doesn't necessarily have to bother with accounts at all because (in the absence of taxation) he/she has no-one else to answer to if he/she grabs a bun or a meal for personal consumption. Same with you if you intend to buy a ship, crew it, and send it to Canada. But the moment you need other people's capital, they will need to be able to make sure that company assets don't disappear. So we have to have some accounting, the European version of which had already been developed in Venice.

Jan 1, 1670 ten wealthy pub-goers, Lord Sutch and nine friends, throw in £1,000 each ('adventure' £1000 each in old English). Only ten stockholders=shareholders=equity holders; it's a 'closely held' firm. This was a financing decision of the firm: not borrowing e.g. from bank but instead get 'equity' money that the providers know has a high risk of loss:

Balance sheet at Jan 1, 1670, breakfast time (at book value (probably same as market value initially))			
		Assets	*Liabilities*
Cash		£10,000	
Paid-in capital			£10,000
Total		**£10,000**	**£10,000**

Note that, weirdly, the 'equity' or 'surplus' shows up as a 'liability' of the company. Maybe regard this as what the company 'owes' (it legally doesn't) to its 10 stockholders/shareholders/owners.

We need more financing
Later the same day they realise that ships cost a lot more than £10,000 so they decide that each of the original ten people now has 100 stock at £10 each and have an initial public offering (IPO) of 3,000 stock at (generously?) the same £10 price per stock. This is another financing decision.

(This was about the stage that long ago your instructor was offered start-up stock while sitting in a faculty lounge at University of Waterloo:
"What's the company called?"
"Research in Motion: we make gadgets called BlackBerries"
"Silly name – I don't want to buy any stock in it" I said, so don't rely on any investment advice I accidentally give. Shares went from $1 to $200 to about $10)

No buyers: fear of being sued by spouses of crew if ship sinks

Solution: get our buddy the King to issue a charter saying that it's a 'Limited Liability' company and that stockholders cannot be sued for their personal wealth. Worse that can happen is that they lose their full investment. In other words, the stock cannot go negative. Also means no need for credit checks of potential share buyers. But good idea that potential lenders are always warned by words like 'Limited' 'AG' 'GmbH' 'N.V.' 'S.A.".

Oh, and besides laying a foundation for English-speaking-style modern capitalism, the King could give us a cool name: *"The Governor and Company of Adventurers of England trading into Hudson's Bay*" and after 350 years of saying that mouthful we'll still be buying our gloves at *'HBC'* and receiving stock dividends. Let's now print up some stock certificates saying:

This paper is one share of HBC stock; there's another 3999 shares in existence.

So whatever the HBC Board says is to be paid out in dividends, the owner of this bit of paper gets one-four-thousandth of that loot without having to hire lawyers or hoodlums to enforce the right.

In fact, dividends, and the right to vote for the Board, are the only rights you get for buying this bit of paper. But at least you can sell it to someone else if you want and if any 'secondary market' exists. Wish they would hurry up and establish stock exchanges. But for the next 200 years you can probably sell this paper by waving it around in London coffee shops.

Public likes the beaver picture and buys the stock:
All are sold to the public, eager to patriotically participate in the exploration of North America – and maybe make a pile of money.

Balance sheet at Jan 1, 1670, lunch time (at book value (probably same as market value initially))			
		Assets	*Liabilities*
Cash		£40,000	
Paid-in capital			£10,000
Value of IPO stock			£30,000
		£40,000	**£40,000**

'Stockholders' equity' is 10,000+30,000=40,000. It seems that each of the 4000 shares might sell for about £10 in the coffee bars, but no guarantee.

Add Some Debt Financing

By the afternoon the original 'adventurers', who have mostly got themselves voted onto the HBC board of directors, realise they need yet more money. They make another financing decision and borrow £60,000 from Medici Bank.

Balance sheet at Jan 1, 1670, dinner time (at book value (probably same as market value initially))			
		Assets	*Liabilities*
Cash		£100,000	
Paid-in capital (equity)			£10,000
Value of IPO stock (equity)			£30,000
Bank loan (debt)			£60,000
		£100,000	**£100,000**

Note that Medici Bank, even if HBC is enormously successful, just gets paid an agreed interest rate on the debt. Only equity holders get wealthy if HBC makes big profits.

Investment decision

And during the evening they buy a £75,000 ship, their first investment/capital budgeting decision. They might have said to themselves "banks would pay 4% per annum effective interest on our £75,000, but a ship will return way more than 0.04*75,000". Same as the 'net present value' rule: invest if 0<PV(all cash flows) where the PV is taken at the required 'hurdle rate' = 'opportunity cost of capital' and the initial investment is a negative cash flow.

Balance sheet at Jan 1, 1670, evening (at book value (probably same as market value initially))			
		Assets	*Liabilities*
Cash		£25,000	
Paid-in capital			£10,000
Value of IPO stock			£30,000
Bank loan			£60,000
Ship		£75,000	
		£100,000	**£100,000**

Stockholders' equity' is 10,000+30,000=40,000. And if they liquidated the company this evening, they might get roughly all their money back if the ship is sold at £75,000.

Business starts to have bad luck or good luck

Scenario 1: The late evening town-crier news reports the accidental sinking of the uninsured ship

Balance sheet at Jan 1, 1670, bed time (at book value, if ship sank and accountant doesn't care)			
		Assets	*Liabilities*
Cash		£25,000	
Paid-in capital			£10,000
Value of IPO stock			£30,000
Bank loan			£60,000
Ship		£75,000	
		£100,000	**£100,000**

The accountant would eventually record some type of 'extraordinary loss' and reduction in book value.

Balance sheet at Jan 1, 1670, bed time (at **market** value, if ship sank)			
		Assets	*Liabilities*
Cash		£25,000	
Paid-in capital			0
Value of IPO stock			0
Bank loan			£(60,000-35,000)
Ship		£0	
		£25,000	**£25,000**

The market value of the 4,000 shares goes to zero – it cannot go lower. What happens next would depend on the courts and the loan terms, but most likely the bank would only get $25,000 back. Note that all the stockholders have been wiped out [Lehman Bros and Bank of America in 2008 the stockholders (owners) got almost nothing, but people are angry at the executives who often got off lightly. "Banks must pay !?"

Business starts to have bad luck or good luck

Scenario 2: The late evening news reports that fashionistas have started wearing beaver skin hats

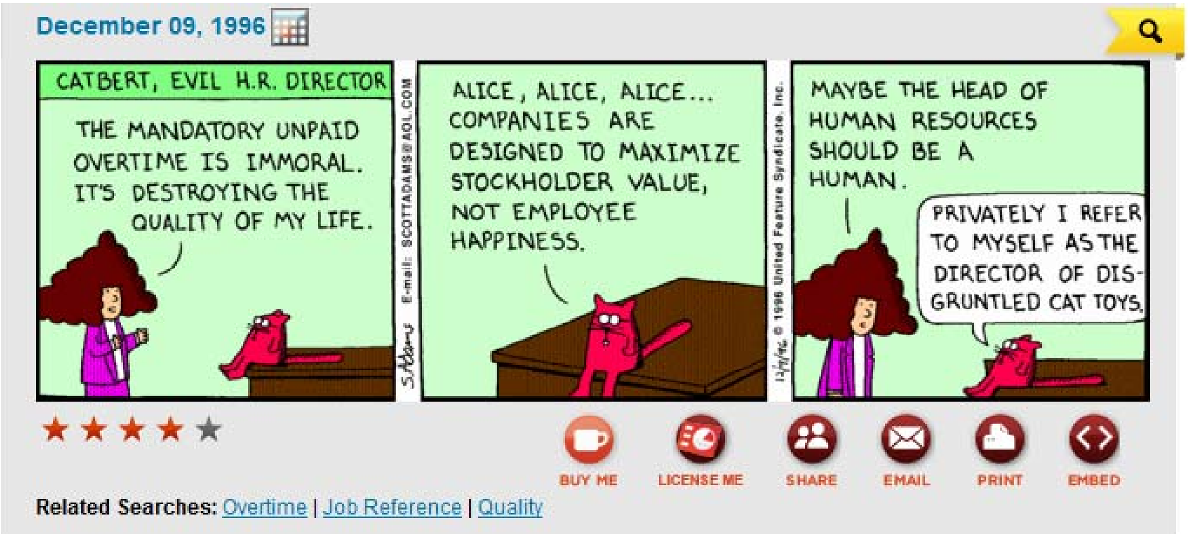
Balance sheet at Jan 1, 1670, bed time (at book value, if beaver hats popular, and accountant doesn't care)			
		Assets	*Liabilities*
Cash		£25,000	
Paid-in capital			£10,000
Value of IPO stock			£30,000
Bank loan			£60,000
Ship		£75,000	
		£100,000	**£100,000**

This hat popularity might never get onto the book value balance sheet. Though if HBC were bought by Wal-Mart, then Wal-Mart would have to pay a high price for the 4,000 shares and, in the consolidated financials, the excess of that price over the £40,000 book value might end up on Wal-Mart's books as 'goodwill' or some other intangible.

Balance sheet at Jan 1, 1670, bed time (at market value, if beaver hats unexpectedly popular,			
		Assets	*Liabilities*
Cash		£25,000	
Paid-in capital (MV)			£15,000
Value of IPO stock			£45,000
PV increase in profits		£20,000	
Bank loan			£60,000
Ship		£75,000	
		£120,000	**£120,000**

Above assumes that the good news increases the stock price by 50% from £10 to £15. Market value of both components of shareholders' equity are 50% higher than their book value.

Goals of the company (English-speaking world)



Goal is to maximise shareholder value

- No surprise: shareholders set up the firm and the rules
- Maximize stock market price is roughly same goal
- Sorry employees, public, everybody else

Principal (stockholders) – agent (management) problem

- Managers tempted to play safe to preserve their jobs
- Maybe 'incent' them with stock options to motivate risk
- Maybe 'golden parachute' pay if get fired