The information content of losses

1. Background

Many papers suggest that earnings are associated with share valuation. For example, Kothari & Sloan, "Information in prices about future earnings", Journal of Accounting & Economics, 1992, 143-171. The following paper explores this a little further by examining the situation when a company is reporting a loss.

Carla Hayn, "The information content of losses", *Journal of Accounting & Economics*, 1995, 125-153.

2. The main idea

The main idea is that the value of a company is made up of two components:

- The stream of dividends which are generated from the cash flows arising from the company's investments.

  This is the common approach to valuation which is closely linked to accounting earnings. See for example in these notes, Ohlson, "A synthesis of security valuation theory and the role of dividends, cash flows and earnings", *Contemporary Accounting Research*, 1990, 648-676 and Miller & Modigliani, "Dividend policy, growth and the valuation of shares", *Journal of Business*, October 1961

- The ability of the shareholders to liquidate the assets, pay the creditors what funds have been realised and walk away.

  This is the liquidation value of the equity, and is likely to be uppermost in the minds of shareholders when the company is making a loss. This approach to the value of the company is concerned with the balance sheet values of the assets rather than earnings.

  The paper by Hayn emphasises this aspect of valuation.

3. Key results

I - LITTLE OR NO ASSOCIATION BETWEEN LOSSES AND RETURNS

In Table 4, she shows that although there is a relationship between earnings and stock prices for profitable firms, this does not exist for loss making firms. The equation estimated is

$$R_t = \frac{P_t - P_{t-1}}{P_{t-1}} = \alpha + \frac{\beta . X_t}{P_{t-1}}$$

where

R_t	=	return during the annual period t
P_t	=	price at the beginning of period t

The definition of X_t varies. In some regressions it is the earnings of the company during period t (the levels specification); in other regressions, it is the change in earnings between periods t-1 and t (the changes specification). The specification will depend on whether earnings or changes in earnings drive changes in price

Regression specification		Levels		Changes	
	Obs	β	R^2	β	R^2
All cases	75,878	0.95	9.3	0.78	5.8
Loss cases	14,512	0.01	0.0	0.50	3.7
Profit cases	61,366	2.62	16.9	2.64	13.7

II - DOES INFORMATION REALLY GET IN TO PRICES BEFORE IT GETS IN TO EARNINGS?

One conclusion of previous studies (again see Kothari & Sloan, 1992 above) is that information gets in to prices before earnings, on average by a margin of up to 3-4 years. This too is explored by Hayn. However, the regression is slightly different. Kothari & Sloan explain cumulative prior returns by current earnings, Hayn explains current returns by future cumulative earnings[1]. This is summarised as follows:

	Dependent variable	**Explanatory variable**
Kothari & Sloan	Returns between t/t-j	Earnings during period t
Hayn	Returns for period t	Earnings cumulated t/t+j

The results are given in Table 5, a sample of which is given below.

Cumulation period X = Changes in earnings

	Obs	β	R^2
All cases			
1 year	61,452	0.74	2.2
5 years	28,368	3.0	21.8
10 years	6,488	3.56	46.1
Positive cumulative earnings			
1 year	49,282	2.98	7.3
5 years	23,834	4.34	29.6
10 years	5,778	3.72	45.2
Negative cumulative earnings			
1 year	12,170	0.31	2.1
5 years	4,534	0.42	2.4
10 years	710	1.21	13.8

[1] The discussion on pp136-137 is less than clear, but this seems to be the case.

The results indicate that whilst for the full sample the β is sensitive to the cumulation period, this is due to the presence of loss making companies. For short cumulation periods, the β coefficient is small because of these companies. For longer cumulation periods, the loss makers are not so prominent and therefore the β coefficient is larger.

This suggests that although earnings does capture information later than share price, the impact of this is relatively small, contrary to the findings of Kothari & Slaon.