Discussion Fixing diluted EPS: recognising the dilutive effects of employee stock options Millicent Chang **University of Wollongong**



Contributions

Derived a method capturing the dilutive effects of ESOs by accounting for changes in ESO value, issue and expiry

Method can be applied to equity and cash settled ESOs

Method adjusts the numerator for the dilutive effects of ESOs instead of denominator (as in Core et al, 2002)

Earnings adjusted method (EAM)

EAM adjusts earnings for the change in value of ESOs (\triangle O), based on the assumption that this change affects the expectation of future abnormal earnings

$$\frac{\Delta S_t}{n_s} = \frac{x_t - d_t - \Delta O_t}{n_s}$$

$$DEPS = \frac{E}{[n_s + n_o(F/P)]}$$
 ons to consider:

1) Is the EAM EPS equal to DEPS?

$$\triangle BV = x - d$$

 $\triangle S + \triangle O = x - d$
 $\triangle S = x - d - \triangle O$

$$\frac{\Delta S_t}{n_s} = \frac{x_t - d_t - \Delta O_t}{n_s} = \frac{n_s}{n_s}$$

$$DEPS = \frac{E}{[n_s + n_o(F/P)]}$$
 ons to consider:

- 2) Is it sufficient to only consider number of shares outstanding?
 - Number of options compared to number of shares outstanding?

$$\frac{\Delta S_t}{n_s} = \frac{x_t - d_t - \Delta O_t}{n_s} = \frac{n_s}{n_s}$$

Some questions to consider:

- 3) How important is the EAM in amount and significance?
 - CSL, Reece, carsales.com, Afterpay and Xero
 - Effects of losses and price volatility – does the EAM make sense for these types of firms or is it capturing the intended effects?

Firms	EAM/Profit	EAM EPS	dEAM v DEPS
All firms	335.6%	0.885	162.36%
Exclude Afterpay and Xero	1.32%	2.37	-0.63%

Some questions to consider

- 4) Will EAM improve decision usefulness for investors, or will it only introduce noise?
 - Compare EAM EPS to returns?
- 5) Are ESOs value-irrelevant?
 - Bens et al (2003) show that stock repurchases increase when the dilutive effect of outstanding ESOs on diluted EPS increases
 - Lee (2008) show that outstanding ESOs affect credit ratings
 - Bens et al (2002) shift away from real investments to repurchases

Other minor issues

- Difficult to understand why there are only five firms on ASX with ESOs
 - Are these firms on ASX 200?
 - If only five firms, then is it a significant problem?
- More details need to be provided on how the method has been derived, including discussion of Hess and Luders (2001), and perhaps an analytical solution
- Table 2, last column, should the absolute value of DEPS in the denominator be used?