

The Two-Class Stock Method for Calculating Earnings per Share

Stock Compensation Awards as Participating Securities

By Josef Rashty

Earnings per share (EPS) is one of the most common and complex performance measurements that a publicly held company presents in its quarterly and annual reports. (See Josef Rashty and John O'Shaughnessy, "Restricted Stock Unites and the Calculation of Basic and Diluted Earnings per Share," *The CPA Journal*, June 2011, pp. 40–45.) Accounting Standards Codification (ASC) Topic 260, "Earnings per Share," covers guidance for the calculation and presentation of basic and diluted EPS, and ASC Topic 718, "Compensation—Stock Compensation," provides guidance for certain unique characteristics of stock compensation awards that impact the EPS calculation.

In their July 2005 *CPA Journal* article, "The Two-Class Method for EPS: Theory, Rule, and Implementation," Nathan Slavin and Steven Petra discussed the calculation of basic EPS under the two-class stock method for certain participating securities, based on Emerging Issues Task Force (EITF) Issue 03-6, *Participating Securities and the Two-Class Method Under FASB Statement No. 128*.

The discussion below is based on FASB Staff Position (FSP) EITF 03-6-1, *Determining Whether Instruments Granted in Share-based Payment Transactions Are Participating Securities*, subsequent guidance effective for fiscal years beginning after December 15, 2008. This FSP was subsequently codified under ASC 260-10-45-61-A and 68-B, and ASC 260-10-55-76-A through D. The discussion below explains and illustrates the application of the two-class method in the calculation of basic and diluted EPS for stock compensation awards that are considered participating securities under ASC 260, and it highlights the complexities surrounding such calculations and related disclosures.



The Two-Class Method

The two-class method is an earnings allocation formula that treats participating securities as having rights to earnings that otherwise would have been available only to common shareholders. Complications arise during the application of the two-class method in the calculation of basic and diluted EPS, primarily because of the com-

plexity of the calculation and the limited application guidance under ASC 260 and in related accounting literature.

Certain companies issue stock compensation awards that contain rights to receive nonforfeitable dividends prior to the awards being vested. Under ASC 260, such unvested stock compensation awards are considered participating securities and, as such,

must be included in the two-class method calculation of basic and diluted EPS, regardless of a company's intention to declare or commit to pay any dividends. These awards are considered participating securities because the holders of the awards participate in the distributions of earnings with common shareholders from the date that the awards are granted.

By contrast, unvested stock compensation awards that contain rights to receive dividends only if the awards are fully vested do not represent a participation right. These awards are not considered participating securities because the holders of the awards do not have the right to retain dividends unless the employees have rendered the requisite service and the awards are fully vested.

In practice, however, most companies design their employee compensation plans in such a way that stock compensation awards will not be considered participating securities. In other cases, the impact

of stock compensation awards as participating securities have not been material (e.g., Hewlett-Packard Company, Form 10-Q for the period ended January 31, 2012, <http://www.sec.gov/Archives/edgar/data/47217/000104746912002476/a2207600z10-q.htm>). Nevertheless, there are many other publicly held companies that have classified their stock compensation awards as participating securities and have reported their EPS under the two-class method (e.g., Helmerich & Payne Inc., Form 10-Q for the period ended March 31, 2012, http://www.sec.gov/Archives/edgar/data/46765/000110465912032962/a12-5931_110q.htm).

Participating Securities

A company should determine if it has any participating securities and whether it should allocate earnings to those securities. A participating security is a security other than common stock that may participate in the distribution of earnings, together with

common stock, in its current form. This participation may even be conditioned upon the occurrence of a specified event. One example of a participating security is a company's preferred stock with dividend participation rights, whereby the holder would receive a cash dividend when dividends are declared on common stock.

Participation does not have to be in the form of dividends, however; any form of participation in undistributed earnings constitutes participation. For example, participating securities may participate in the undistributed earnings of a company through a formula tied to the dividends paid on common stock, such as a warrant entitling the holder to a "yield right" equal to a certain percentage of the dividends paid on common stock, even though this yield right is not labeled as a dividend.

Applicability of losses. Generally, losses are not applicable to participating securities. A publicly held company allocates losses to a participating security in the peri-

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EXHIBIT 1

An Illustration of the Two-Class Method

The following example reflects the computation of basic and diluted EPS when an entity has issued nonqualified stock options (NQSO). It reflects the calculation of basic and diluted EPS both for NQSOs as nonparticipating securities and NQSOs as participating securities.

Assumptions

Net income (NI)	\$500,000
Weighted average of common shares outstanding (WAS)	1,000,000
Number of common shares outstanding at the end of the period (CSO)	1,000,000
NQSOs granted at the beginning of the period ¹	100,000
Grant price (exercise price) at the beginning of the period (EXP)	\$ 10
Average stock price during the period (AVG)	\$ 15
Black-Scholes-Merton valuation of NQSOs (FMV)	\$ 4
Unrecognized stock compensation at the beginning of the period ²	\$400,000
Stock compensation for the period	\$ 80,000
Unrecognized stock compensation at the end of the period	\$320,000
Average unrecognized stock compensation ³	\$360,000
Dividend declared and payable per common share	\$ 0.10
Estimated forfeiture rate	20%
Effective tax rate (ETR)	40%

¹ NQSOs will be fully vested at the completion of four years; therefore, no options have been vested or exercised during the first year that EPS is calculated.

² Number of NQSOs grants (100,000) multiplied by the Black-Scholes-Merton valuation of \$4

³ The simple average of unrecognized stock compensation at the beginning of the period for \$400,000 and at the end of the period for \$320,000

Calculation of basic and diluted EPS if NQSOs were not participating securities. In this scenario, the option holders do not have rights to participate in dividends with the common shareholders.

Basic EPS ¹	\$0.5000
Diluted EPS:	
Assumed proceeds from the exercise of options ²	\$1,000,000
Average unrecognized compensation	360,000
Excess tax benefits ³	40,000
Total assumed benefits	<u>\$1,400,000</u>
Incremental diluting shares (IDS) ⁴	6,667
Diluted shares outstanding (DSO) ⁵	1,006,667
Diluted EPS ⁶	\$0.4967

¹ \$500,000 (NI) ÷ 1,000,000 (WAS) = \$0.5000

² 100,000 (NQSOs) × \$10 (EXP) = \$1,000,000

³ (\$15 [AVG] - \$10 [EXP] - \$4 [FMV] = \$1 × 40% [ETR]) × 100,000 (NQSOs) = \$40,000

⁴ 100,000 (NQSOs) - (\$1,400,000 ÷ \$15 [AVG]) = 6,667

⁵ 1,000,000 (WAS) + 6,667 (IDS) = 1,006,667 (DSO)

⁶ \$500,000 (NI) ÷ 1,006,667 (DSO) = \$0.4967

Calculation of basic and diluted EPS if NQSOs were participating securities. In this scenario, the option holders have a nonforfeitable right to participate in dividends with the common shareholders on a dollar-for-dollar basis.

Net income (NI)	\$500,000
Less distributed income (DI) ¹	(108,000)
Undistributed income (UI)	<u>\$392,000</u>
Average diluted shares outstanding (ADS)	1,100,000
Average diluted expected-to-vest shares outstanding (AES)	1,080,000

¹ 1,000,000 (CSO) + (100,000 [NQSOs] × [80% or excluding the estimated forfeited awards]) = 1,080,000 × \$0.10 (dividend) = \$108,000

	Basic EPS	Diluted EPS
Common shares		
Distributed earnings	\$0.1000 ¹	\$0.0993 ⁴
Undistributed earnings	0.3564 ²	0.3542 ⁵
Common shares EPS	<u>\$0.4564</u>	<u>\$0.4535</u>
Unvested shares		
Distributed earnings	\$0.0800 ³	\$0.0800 ⁶
Undistributed earnings	0.3564 ²	0.3542 ⁵
Unvested shares EPS	<u>\$0.4364</u>	<u>\$0.4342</u>

¹ \$0.10 dividend declared and paid to each common shareholder

² \$392,000 (UI) ÷ 1,100,000 (ADS) = \$0.3564

³ \$80,000 of earnings distributed to 100,000 unvested NQSOs

⁴ (1,000,000 CSO × \$0.10 dividend declared) ÷ 1,006,667 (DSO) = \$0.0993

⁵ \$392,000 (UI) ÷ 1,106,667 (ADS plus IDS) = \$0.3542

⁶ \$80,000 dividend applicable to 80,000 NQSOs expected to vest ÷ 100,000 average unvested options outstanding

ods of net loss if, based upon the contractual terms of the participating security, the security had not only the right to participate in the earnings of the issuer, but also a contractual obligation to share in the losses of the issuing entity on a basis that was objectively determinable. The company should determine whether the holder of a participating security has an obligation to share in the losses of the issuing entity for the calculation of EPS in a given period, on a period-by-period basis.

Computing EPS Using the Two-Class Method

All securities, including stock compensation awards, that meet the definition of a participating security—irrespective of whether the securities are convertible, nonconvertible, or potential common stock securities—should be included in the computation of basic and diluted EPS, using the two-class method. Under this method, a company assumes that it distributes all of its earnings

to the holders of all outstanding participating awards (not just those awards that are expected to vest), which would ultimately reduce the earnings available for distribution to common shareholders. In other words, the two-class method is an earnings allocation formula that treats all participating securities as having rights to earnings that otherwise would have been available only to common shareholders.

The two-class method calculation, comprising the sum total of EPS applicable to distributed and undistributed earnings, is calculated as follows:

■ *Distributed earnings*—First, the company determines the amount of the dividends that it has declared in the current period (dividends declared in the current period should not include dividends declared with respect to prior-year unpaid cumulative dividends) and is applicable to its common stockholders and its participating securities. Second, the company allocates the distributed earnings to an average

number of common stock and an average number of participating securities that are expected to vest.

■ *Undistributed earnings*—Third, the company reduces its income from continuing operations (or net income) by the amount of distributed earnings (calculated above). Fourth, the company allocates the undistributed earnings to an average number of common stock and an average number of participating securities.

It should be noted, however, that the amount of distributed earnings allocated to the unvested stock compensation awards equals the total dividends distributed to all stock compensation awards, minus the dividends applicable to awards that are expected to be forfeited.

By contrast, the amount of undistributed earnings must be allocated to all outstanding awards, including awards that are expected to be forfeited. This approach is based on the assumption that, under the two-class method, an entity distributes its earnings to

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all outstanding awards (not just the awards expected to vest). Generally, the application of the two-class method reduces the earnings available to distribute to common shareholders. *Exhibit 1* illustrates this concept.

Stock Compensation Awards

ASC 260 requires that all awards be included in the computation of diluted EPS as long as the effect is dilutive. Dilutive stock compensation awards (e.g., stock

options and restricted stock units) will be included in the diluted EPS computation even if employees are not able to exercise the awards until some future date. Companies determine the dilutive effect of

EXHIBIT 2 Computation of Basic and Diluted EPS by Helmerich & Payne Inc.

	Three Months Ended March 31,		Six Months Ended March 31,	
	2012	2011	2012	2011
Numerator:				
Income from continuing operations	\$129,763	\$98,961	\$274,060	\$203,326
Loss from discontinued operations	(44)	(171)	(55)	(386)
Net income	129,719	98,790	274,005	202,940
Adjustment for basic EPS:				
Earnings allocated to unvested shareholders	(530)	(300)	(1,009)	(599)
Numerator for basic earnings per share:				
From continuing operations	129,233	98,661	273,051	202,727
From discontinued operations	(44)	(171)	(55)	(386)
	129,189	98,490	272,996	202,341
Adjustment for diluted EPS:				
Effect of reallocating undistributed earnings of unvested shareholders	7	6	14	11
Numerator for diluted EPS:				
From continuing operations	129,240	98,667	273,065	202,738
From discontinued operations	(44)	(171)	(55)	(386)
	<u>\$129,196</u>	<u>\$98,496</u>	<u>\$273,010</u>	<u>\$202,352</u>
Denominator:				
Denominator for basic EPS—weighted-average shares	107,385	106,515	107,285	106,270
Effect of dilutive shares from stock options and restricted stock	1,657	2,080	1,640	2,105
Denominator for diluted EPS—adjusted weighted-average shares	<u>109,042</u>	<u>108,595</u>	<u>108,925</u>	<u>108,375</u>
Basic earnings per common share:				
Income from continuing operations	\$1.20	\$0.92	\$2.54	\$1.90
Loss from discontinued operations	—	—	—	—
Net income	<u>\$1.20</u>	<u>\$0.92</u>	<u>\$2.54</u>	<u>\$1.90</u>
Diluted earnings per common share:				
Income from continuing operations	\$1.18	\$0.91	\$2.51	\$1.87
Loss from discontinued operations	—	—	—	—
Net income	<u>\$1.18</u>	<u>\$0.91</u>	<u>\$2.51</u>	<u>\$1.87</u>

Figures in thousands, except per-share amounts

Source: Helmerich & Payne Inc. Form 10-Q filed for the period ended March 31, 2012, http://www.sec.gov/Archives/edgar/data/46765/000110465912032962/a12-5931_110q.htm

the stock compensation arrangements using the treasury stock method (TSM).

The use of forfeiture rates in the calculation of basic and diluted EPS is consistent with the provisions of ASC Topic 780, "Stock Compensation." Therefore, any changes in the estimated number of forfeited share awards must be reflected in the EPS calculation in the period that a change in estimate occurs.

Treasury Stock Method

The TSM assumes that a company uses the proceeds from the hypothetical exercise of the stock compensation awards to repurchase common stock at the average market price during the period (Rashty and O'Shaughnessy 2011). Therefore, higher assumed proceeds (the numerator) and a lower average market price during the reporting period (the denominator) increases the number of shares that a company can hypothetically repurchase. An increase in the number of shares that a company can hypothetically repurchase lowers the denominator and raises the amount of diluted EPS.

The assumed proceeds under the TSM include the following:

- The purchase price of the award that the grantee pays in the future (usually the exercise price of the stock compensation awards)
- The average compensation costs for future services that have not been recognized
- Any windfall tax profits (or shortfalls) due to the exercise of awards.

Unvested stock compensation awards that contain nonforfeitable rights to dividends (or dividend equivalents) are participating securities, and should be included in the calculation of basic and diluted EPS under the two-class method.

Participating and Nonparticipating Securities

ASC 260 considers unvested stock compensation awards as participating securities, as long as they participate in distributions of earnings with common shareholders from the grant date, and the grantee is not required to render any service to earn such dividends. The unvested stock compensation awards that contain rights to receive dividends only upon full vesting are not participating securities, because the holders of the awards do not have the right to retain the dividend unless they complete the requisite service period.

Dividends or dividend equivalents may also be transferred to the holders of stock compensation awards, in the form of a reduction in the exercise price of the awards. This feature is not a participatory right because the award does not represent a nonforfeitable right to participate in earnings absent the exercise of the award—that is, a right to dividends or dividend equivalents in the form of a reduction in the exercise price is a contingent transfer of value. Similarly, if payment of dividends or dividend equivalents is contingent upon vesting in the stock compensation award, the awards are not considered participating securities.

The inclusion of any provision that contains rights to receive nonforfeitable dividends prior to awards being vested might have a negative impact on a company's calculation of its basic and diluted EPS.

Disclosures

FSP EITF 03-6-1 requires the presentation of basic and diluted EPS only for each class of common stock and not for participating securities; however, the guidance does not preclude the presentation of basic and diluted EPS for participating securities (e.g., stock compensation awards) as a note to the financial statements. For example, Helmerich & Payne Inc., in its Form 10-Q filed for the period ended March 31, 2012, made the following disclosure regarding the calculation of EPS under the two-class method:

Accounting Standards Codification ("ASC") 260, *Earnings per Share*, requires companies to treat unvested share-based payment awards that have non-forfeitable rights to dividend or dividend equivalents as a separate class of securities in calculating earnings per share. We have granted and expect to continue to grant restricted stock grants

to employees that contain non-forfeitable rights to dividends. Such grants are considered participating securities under ASC 260. As such, we are required to include these grants in the calculation of our basic earnings per share and calculate basic earnings per share using the two-class method. The two-class method of computing earnings per share is an earnings allocation formula that determines earnings per share for each class of common stock and participating security according to dividends declared (or accumulated) and participation rights in undistributed earnings.

Basic earnings per share is computed utilizing the two-class method and is calculated based on weighted-average number of common shares outstanding during the periods presented.

Diluted earnings per share is computed using the weighted-average number of common and common equivalent shares outstanding during the periods utilizing the two-class method for stock options and nonvested restricted stock (http://www.sec.gov/Archives/edgar/data/4676/000110465912032962/a125931_110q.htm).

Exhibit 2 replicates Helmerich & Payne's computation of basic and diluted EPS.

Practical Impact

EPS is one of the most common and complex performance measurements calculated by publicly held companies. Certain companies issue stock compensation awards that contain rights to receive nonforfeitable dividends prior to those awards being vested. These stock compensation awards could be considered participating securities and thus could be included in a company's calculation of basic and diluted EPS—yet the inclusion of any provision that contains rights to receive nonforfeitable dividends prior to awards being vested might have a negative impact on a company's calculation of its basic and diluted EPS. The framework for calculating EPS using the two-class method described above can be helpful to CPAs facing such a scenario. □

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