A Hybrid Restricted Stock/Pre-IPO Data Point: Lack of Marketability Discount for ESOPs

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Abstract

When SAIC went public, the company and the process provided empirical support for a discount for lack of marketability to be used as a reference for ESOPs.

Introduction

SAIC (Ticker: SAI) became a public company on 13 October 2006 and offered the investing public 75,000,000 common shares on the New York Stock Exchange (NYSE). The day before, the company was entirely owned by its 35,500 employees through various company plans, including a 401(k) plan and an Employee Stock Ownership Plan (ESOP). In addition to creating more liquidity for its employee-shareholders, the public listing of the stock provided market support and data to quantify a lack of marketability discount associated with this ESOP.[1] To the best of our knowledge there has been no other published empirical evidence quantifying a discount for lack of marketability for ESOPs.

While our conclusion represents only one data point, we believe our calculation of a lack of marketability discount equal to 4.5% may represent a floor value for ESOPs given the special characteristics of SAIC's employee ownership plan.

Background

SAIC is a leading provider of scientific, engineering, systems integration, and technical services and solutions to all branches of the U.S. military, agencies of the U.S. Department of Defense, the intelligence community, the U.S. Department of Homeland Security, and other U.S. government civil agencies, as well as to customers in selected commercial markets.[2] In 2006, it had revenues of $7.8 billion.

As a private company, SAIC created liquidity for its employees in what it called a "limited market" through its wholly owned broker-dealer subsidiary, Bull, Inc. Quoting Amendment No. 5 to Form S-1:

> The limited market has permitted existing stockholders to offer for sale shares of Old SAIC class A common stock on predetermined days which we call trade dates. Historically, there have been four trade dates each year; however, a scheduled trade date could be postponed or cancelled. In addition, we have provided retirement plan participants with the opportunity to sell our stock held in our retirement plans. The retirement plans trades have generally occurred on a quarterly basis in conjunction with limited market trades. The last limited market trade occurred on June 30, 2006. Following completion of this offering, we will no longer repurchase stock through limited market trades.

It also should be noted that the company stated:

> Although we were not contractually required to do so, on all trade dates for the periods presented, we repurchased the excess of the number of shares offered for sale over the number of shares sought to be purchased, thereby creating an opportunity for liquidity for the shares held by Old SAIC stockholders. In the six months ended July 31, 2006 and 2005, we repurchased $584 million and $378 million of Old SAIC common stock, respectively, and in fiscal 2006, 2005 and 2004, we repurchased $818 million, $607 million and $451 million of Old SAIC common stock, respectively.

While this limited market created liquidity every quarter, it was, obviously, not freely tradable as shares are on public exchanges. In October 2006, more than 75 million shares became freely tradable. The rest of the outstanding shares will become freely tradable over various lock-up periods, but all within a year of the initial public offering (IPO).[3]

Valuation Process for the Limited Market

Further quoting Amendment No. 5 to Form S-1:

> In establishing the stock price, the board of directors has considered a broad range of valuation data and financial information, including analysis provided by Houlihan Lokey Howard & Zukin Financial Advisors, Inc., an independent appraisal firm. The board has also historically considered valuation data and financial information relating to publicly traded companies considered by our appraiser to be comparable to Old SAIC or relevant to the valuation of our stock. The valuation process has included a valuation formula, which has been used since 1972, that has an earnings component and an equity component and includes a variable called the market factor. After considering the analysis of the independent appraisal firm and

[1]This type of transaction, ESOP to public company, while not unprecedented, is somewhat rare.
[2]Amendment No. 5 to Form S-1, filed 2 October 2006.

[3]65,214,563 shares, 65,214,563 shares, 97,821,845 shares, and 97,821,845 shares will become freely tradable 90 days, 180 days, 270 days, and 360 days after the IPO, respectively. See Table 3, note *, for how we handled these restricted shares.

Table 1
SAIC Limited Market

Date	Price/Share Class A Common
11 April 2003	$29.02
11 July 2003	30.50
10 October 2003	31.79
9 January 2004	36.52
16 April 2004	37.34
16 July 2004	37.31
8 October 2004	38.14
14 January 2005	40.55
8 April 2005	42.27
10 June 2005	41.80
7 October 2005	43.39
23 December 2005	43.92
6 January 2006	43.92
5 May 2006	48.06
23 June 2006	47.28

other valuation data and information, our board of directors has historically set a market factor at the value that causes the formula to yield a stock price that the board believes represents a fair market value for the Old SAIC class A common stock within a broad range of financial criteria. The stock price and market factor, as determined by the board of directors, have historically remained in effect until subsequently changed by the board of directors or its designated committee. Our board of directors has historically reviewed the stock price at least four times each year, generally during its regularly scheduled board meetings.

Table 1 shows a historical record of these trading prices. Given the number of employees who participated in the limited market, the age of the market, the regularity of the transactions, and the valuation process described above, we believe that the difference between the price of the shares in the limited market, which traded on average every quarter, and the price of the shares in the public market can be ascribed to a lack of marketability in the limited market.

Quantification of Lack of Marketability

Table 2 shows SAIC's value as a 100% noncontrolling, partially marketable company. Table 3 shows SAIC's value as a 100% noncontrolling, fully marketable company. The analysis shown in Tables 2 and 3 is a hybrid since as a private company SAIC maintained a limited market for its shares (similar to restricted stock) and then went public. Thus, we can use the offering price to calculate a lack of marketability discount (similar to a pre-IPO study).

We determined a lack of marketability discount equal to approximately 4.5%. This is noteworthy because some analysts have determined that the ESOP put-right substantially mitigates or may even eliminate a discount for

Table 2
SAIC Limited Market

	Shares Outstanding	Price as of 23 June 2006*	MVE as of 31 July 2006†	MVE as of 12 October 2006‡	Notes
Old Common A	159,002,268	$47.28	7,517,627,231		
Old Common B	201,707	945.60	190,734,139		
Total MVE			7,708,361,370	8,355,825,404	
Special Dividend§				2,450,000,000	
MVE as Private Company (with Trades Quarterly)‖				5,905,825,404	Partially Marketable

Source: Amendment No. 5 to Form S-1.
* Last limited market valuation date (see Table 1).
† MVE = Market value of equity. Shares outstanding as of 31 July 2006. This date was used to determine the shares outstanding as a public company.
‡ It was assumed that SAIC increased in value commensurately along with the Philadelphia Defense Industry Index (DFX) between 23 June 2006 and 12 October 2006, the date prior to the IPO. Many of SAIC's competitors comprise this index. Note: this technique is similar to the Willamette Management Associates' pre-IPO studies, which account for varying market conditions. Our conclusion is obviously dependent upon this assumption. If, for example, SAIC's value in reality increased more than the index (8.4%), then our conclusion of a 4.5% lack of marketability discount would be less. On the other hand, if SAIC's value in reality increased less than the index, then our conclusion would be greater than 4.5%. We performed a regression analysis between DFX and SAIC for the period 11 April 2003–23 June 2006 and found a strong correlation between the two equal to a positive 0.78. For lack of any other information, we believe our conclusion represents a fair estimation of this ESOP's lack of marketability.
§ Payable only to old shareholders as disclosed prior to IPO. Payment will be received after IPO.
‖ Not including options to purchase 27,595,663 shares of Old Common A.

Table 3
SAIC Public Market

	Common Shares Outstanding (or Convertible)*	Date	Closing Price	MVE†	Lack of Marketability Discount‡
	412,322,816	IPO: 13 October 2006	$15.00	6,184,842,240	4.51%
		13 October 2006	$18.18	7,496,028,795	21.21
		16 October 2006	$18.59	7,665,081,149	22.95
		17 October 2006	$17.97	7,409,441,004	20.29
		18 October 2006	$17.67	7,285,744,159	18.94
		19 October 2006	$17.27	7,120,815,032	17.06
Lack of Marketability Discount§					20.09

* Underwriters exercised their overallotment option of 11,250,000 shares, increasing shares outstanding to 412,322,816. This analysis ignores the lock-up agreements, which would decrease the value of the restricted shares. However, we assume that the public market is efficient and, therefore, pricing in the future increases in the float over the next year. Thus, at the IPO we have determined that $6.2 billion was the market value of publicly traded equity.

† Not accounting for 55,191,326 in new Class A preferred shares issuable upon exercise of options to purchase 27,595,663 shares of Old Class A common (see note ‖ in Table 2). Data were lacking to include in the analysis. If analysis was possible, we expect that our conclusion would be immaterially higher.

‡ (6,184,842,240–5,905,825,404)/6,184,842,240.

§ Using 5-day average, not including IPO price.

Note: For consistency with prior pre-IPO studies (Willamette Management Associates and Robert W. Baird), 4.51% is more appropriate. (These prior studies used the IPO price to calculate discounts.)

lack of marketability.[4] Given this empirical evidence, we do not believe an ESOP's repurchase liability eliminates a discount for lack of marketability.

Conclusions and Comparability with Other ESOPs

Although this is just one data point, we believe that the conclusion could be useful as a reference for determining lack of marketability discounts for ESOPs. This conclusion of 4.5% might put a floor on the discount for lack of marketability for ESOPs. The limited market for old SAIC common shares was quite robust, stable, at arm's length between thousands of employees, and traded, on average, on a quarterly basis.

Moreover, Bull, Inc. not only acted as a broker-dealer, but as a voluntary market maker, absorbing excess share supply to ensure liquidity for all employee-shareholders. Even after paying more than $1.8 billion to repurchase stock from employees over the last three fiscal years, SAIC's cash at the end of each fiscal year still hovered around $1 billion. How many other ESOPs exhibit such little risk as to their ability to repurchase shares?

If other ESOPs do not exhibit these characteristics and, for example, only trade once per year or have difficulty covering their repurchase liability, then we would expect their discount for lack of marketability to be greater than 4.5%.

We also calculated a discount for lack of marketability equal to approximately 20% based on a post-IPO average of SAIC's closing stock prices since we noted a significant increase in price the first week and are aware of criticisms of using the offering price (see Table 3).

Ironically, we also are aware of criticisms of using post-IPO prices (at least so early after an IPO).[5] For consistency purposes with other pre-IPO studies, we conclude on a discount of 4.5%.[6]

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[4] Shannon P. Pratt, Robert F. Reilly, and Robert P. Schweihs, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies,* 4th ed. (New York: McGraw-Hill), 707.

[5] See articles written by Mary Ann Lerch, ASA, CFA, CBA, in the June 1997 *Business Valuation Review*, 16(2): 70–75, and the June 2000 *Business Valuation Review*, 19(2): 70–77, titled "Yet Another Discount for Lack of Marketability Study" and "Measuring Lack of Marketability Discounts from IPO Pricing: The Graphic Approach IPO Data: November 1995–April 1997," respectively. In summary, Ms. Lerch uses a "seasoning period"—a period of stock price stability, which depending on the stock might last upwards of 15 months—to estimate a post-IPO price to use as a reference point for lack of marketability. However, we believe a reference price 15 months after the IPO would certainly incorporate new, material information, tainting any attempt to calculate lack of marketability. While recognizing some problems (underwriter support and company disclosure of new information), we recommend that any reference point for calculation of discounts for lack of marketability certainly not extend beyond the SEC-enforced quiet period, now 40 days.

[6] The disparity of results may lead to questions concerning the "accuracy" of other pre-IPO studies that reference the offering price. As we know, underwriters may be inclined to underprice an IPO to ensure its "success."