

Securities and Exchange Commission
Division of Corporation Finance
Mail Stop 3030
100 F Street, N.E.
Washington, D.C. 20549

December 11, 2009

Attention: Mr. Todd
Mr. Kartholy
Mr. Cascio

Re: Align Technology, Inc.
Form 10-K for the fiscal year ended December 31, 2008
Filed February 27, 2009
File No. 000-32259
Form 10-Q for the quarterly period ended September 30, 2009
Filed November 5, 2009
File No. 000-32259

Ladies and Gentlemen:

On behalf of Align Technology, Inc. ("Align"), we respectfully submit this letter in response to comments from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") received by letter dated November 20, 2009 relating to Align's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 (the "Form 10-K") and Quarterly Report on Form 10-Q for the period ended September 30, 2009 (the "Form 10-Q").

In this letter, we have recited the comments from the Staff in italicized, bold type and have followed each comment with Align's response. Capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Form 10-K for Form 10-Q, as applicable.

Form 10-Q for the Quarterly Period Ended September 30, 2009

Note 6. Ormco Litigation Settlement, page 11

- 1. We see that you applied a 25% discount from the quoted market price of a share of your common stock in calculating the fair value of the shares issued to Danaher in settlement of litigation. We note your disclosure that the discount was determined through review of published restricted stock studies, comparison to restricted stock transactions of other companies in the industry in which Align operates, and the cost of hedging the restricted stock using the Black-Scholes option pricing model. Please tell us, with a view toward future***

disclosure, the specific details underlying the 25% discount from quoted market price. In that regard please:

- *Tell us how you selected, weighted and evaluated each of the three sources of information referred to in your disclosure.*
- *Describe the results of the published studies considered and explain why you believe the results of those studies are applicable and meaningful in your specific circumstances.*
- *Describe the nature of the restricted stock transactions considered, how you selected those transactions and why you believe those transactions are appropriately comparable and meaningful in your specific circumstances.*
- *Tell us how you applied the Black-Scholes method in evaluating the fair value of the restricted stock, including the assumptions applied.*

It would appear that determination of the discount applied in accounting for the shares issued in the legal settlement would be highly subjective. Accordingly, please ensure that future filings present robust disclosure about how that discount was measured.

Align acknowledges the Staff's comment and supplementally submits the following additional information regarding the determination of the discount.

Tell us how you selected, weighted and evaluated each of the three sources of information referred to in your disclosure.

In determining a reasonable discount for the unregistered shares issued to Danaher, Align considered the following sources: hedging analysis using the Black-Scholes model, published restricted stock studies and restricted stock transactions of other companies within our industry. The Black-Scholes model was selected to calculate the value of a hypothetical put option to approximate the cost of hedging Align's restricted stock over the expected period of non-marketability. We relied primarily upon the Black Scholes model because the determination of the value of a hypothetical put option is less subjective than the comparative transaction method, as it calculates a single answer for a set of assumptions specific to Align's transaction.

Additionally, we reviewed published restricted stock studies to obtain an understanding of the range of discounts on previously issued unregistered stock. Because the overall results from these published studies were very broad, we placed the least weight on these results.

From these published stock studies, we considered the FMV Restricted Stock Study, which is the most recent and applicable study, from which we selected restricted stock transactions completed by companies in similar industries. We reviewed these transactions to assess if the discount derived from the Black-Scholes model was generally comparable to those of other companies' transactions.

Tell us how you applied the Black-Scholes method in evaluating the fair value of the restricted stock, including the assumptions applied.

Management utilized the Black-Scholes model to value a hypothetical put option to approximate the cost of hedging the restricted stock over the expected period of non-marketability. This approach calculates the amount to buy the right to sell the presently restricted stock at the then-current market price on the date the holder can count on the shares becoming salable on the public exchange.

The following assumptions were used in the calculation:

- **Stock price:** Align's share price; \$10.13 on August 16, 2009 and \$14.00 on September 22, 2009
- **Strike price:** \$10.13 as of August 16, 2009 and \$14.00 as of September 22, 2009
- **Risk-free rate:** Based on one-year US Treasury STRIPS; 0.49% as of August 16, 2009 and 0.438% as of September 22, 2009. The one year period is consistent with the expected restriction period.
- **Days to expiration:** Defined as the time period, in days, until the subject shares are expected be sold, transferred, and the like; 365 days (one year)
- **Dividend yield:** Align does not have a dividend policy and has never declared a dividend; 0.00%
- **Volatility factor:** The measure of the deviation in the price of Align stock prior to each valuation date. The volatility factor of 70% was used for the one-year period prior to each stock issuance date.

Based on the assumptions above, the discount derived by the Black-Scholes option pricing model is 24.0% for shares issued on August 16, 2009 and 25.0% for shares issued on September 22, 2009.

Describe the results of the published studies considered and explain why you believe the results of those studies are applicable and meaningful in your specific circumstances.

Describe the nature of the restricted stock transactions considered, how you selected those transactions and why you believe those transactions are appropriately comparable and meaningful in your specific circumstances.

Management reviewed published restricted stock studies to obtain an understanding of the range of discounts on previously issued unregistered stock. In general, the restricted stock studies clearly indicate that shares of restricted stock trade at a discount from the prices of their freely traded counterparts due to their restricted marketability. These studies indicated a range of average discounts from 13% to 45%, with an overall average of 29% and a median average discount of 31%. We noted that the calculated Black-Scholes discount was within the average discount range, and generally consistent with the overall average and median discounts. However, because these studies were very broad, we placed the least weight on these results.

Additionally from these published stock studies, we considered the FMV Restricted Stock Study to select restricted stock transactions completed by companies in similar industries to assess if the discount derived from the Black-Scholes model was generally comparable. From the study, management selected Major Group 38 of the Standard Industrial Classification ("SIC") codes which consisted of 29 transactions of negotiated sales of restricted and unregistered shares, including the unregistered shares that Align issued in November 2002 with an implied discount of approximately 22%. Of these selected items, the average transaction was approximately 1.6 million of restricted shares, which equated to an average of 10.6% of shares outstanding after issuance, with an average discount of 21.7%. Since these transactions

relate to companies within our industry and the average percentage of restricted shares issued is comparable to Align's transaction with Danaher (10.5% of Align's outstanding shares), management believes the results of this study are applicable and meaningful in assessing the reasonableness of the calculated Black-Scholes discount.

Overall, management primarily relied upon the Black-Scholes model because it is less subjective than the comparative transaction method and concluded that the 25% discount derived by the Black-Scholes calculation was reasonable. Management corroborated this conclusion by assessing that the discount was generally within the range of discounts from the published restricted stock studies and comparable to the discounts from the selected restricted stock transactions within similar industries.

In order to address the questions posed above and to provide additional information and clarification around the valuation of the discount, we will enhance our disclosure in the Form 10-K for 2009 and future filings, as follows:

Upon execution of the Settlement Agreement, 5.6 million shares were issued to Danaher and the remaining 2.0 million shares were issued upon the expiration of the waiting period under the provisions of the Hart-Scott-Rodino Antitrust Improvements Act, which occurred on September 21, 2009. In addition to other provisions of the Settlement Agreement, these shares may not be resold except pursuant to an effective registration statement under the Securities Act or an available exemption from registration. The Company is not obligated to affect any such registration prior to the one year anniversary of this agreement. The fair value of the shares should reflect the value that market participants would demand because of the risk relating to the inability to access a public market for these securities for the specified period. The fair value of the unregistered shares was determined as of the market closing price on the dates the shares were issued less a 25% non-marketability discount, for a total value of \$76.7 million, including the cash payment.

Align has concluded that 25% is an appropriate discount based primarily on an analysis utilizing the Black-Scholes model to value a hypothetical put option to approximate the cost of hedging the restricted stock over the expected period of non-marketability. This approach calculates the amount required to buy the right to sell the presently restricted stock at the then-current market price on the date the holder can count on the shares becoming salable on the public exchange. The assumptions input into the Black-Scholes option pricing model were based on the stock price on the dates of the share issuances, an expected term of 1 year, expected volatility of 70%, risk-free interest rate of 4.38% to 4.90% and no expected dividends.

The Company corroborated the conclusion indicated by the Black-Scholes model by assessing that the discount was generally consistent with the ranges noted from published restricted stock studies and comparable to discounts on restricted stock transactions completed by other companies operating in similar industries as Align.

We will also provide the following sensitivity analysis related to the valuation of the restricted shares in our Management Discussion and Analysis in the Form 10-K for 2009 and future filings, as follows:

The determination of the discount applied to the restricted stock is highly subjective. The table below provides for a sensitivity analysis if the discount rates were 1% and 5% higher or lower.

(in thousands, except percentages)	20% (-5%)	24% (-1%)	25%	26% (+1%)	30% (+5%)
Total fair value of stock and cash consideration	80,899	77,512	76,665	75,818	72,430
Variance \$	4,234	847	0	(847)	(4,234)
Variance %	5.5%	1.1%	0.0%	(1.1%)	(5.5%)

2. ***As a related matter, you disclose that you engaged a third party to assist you in determining the fair value of the shares issued to Danaher. Please tell us the nature and extent of the third-party's involvement in your decision-making process associated with the valuation of the equity securities. While management may elect to take full responsibility for the valuation of the equity securities issued to Danaher, if you refer to the expert you may need to name that expert in future filings. You may also need to include their consent as an exhibit to registration statements that include or incorporate the disclosure. Please refer to Question 141.02 of the Compliance and Disclosure Interpretations on Securities Act Sections, which can be found at <http://www.sec.gov/divisions/corpfin/guidance/sasinterp.htm>.***

Align acknowledges the Staff's comment and supplementally advises that management takes full responsibility for the valuation of the equity securities issued to Danaher. Management engaged the third party expert to assist in gathering and modeling the data and used that information to draw a conclusion as to a reasonable discount for the restricted shares. The reference to the third party expert will be removed in future filings.

Very truly yours,

/s/ Kenneth B. Arola

Kenneth B. Arola
Vice President and Chief Financial Officer
Align Technology, Inc.